

APPENDIX K

Documentation Sample Laboratory Analytical Reports



Technical Report

prepared for:

Langan Engineering & Environmental Services (NJ)

300 Kimball Drive, 4th Floor

Parsipanny NJ, 07054-2172

Attention: Amanda Forsburg

Report Date: 02/22/2022

Client Project ID: 190051702

York Project (SDG) No.: 22B0704

Revision No. 1.0



CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037

New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

Report Date: 02/22/2022
Client Project ID: 190051702
York Project (SDG) No.: 22B0704

Langan Engineering & Environmental Services (NJ)
300 Kimball Drive, 4th Floor
Parsipanny NJ, 07054-2172
Attention: Amanda Forsburg

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on February 15, 2022 and listed below. The project was identified as your project: **190051702**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

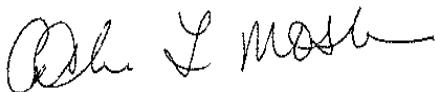
Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
22B0704-01	138_PE-23_6	Soil	02/15/2022	02/15/2022
22B0704-02	139_PE-23_N	Soil	02/15/2022	02/15/2022
22B0704-03	140_PE-23_E	Soil	02/15/2022	02/15/2022
22B0704-04	141_PE-23_S	Soil	02/15/2022	02/15/2022
22B0704-05	142_PE-23_W	Soil	02/15/2022	02/15/2022

General Notes for York Project (SDG) No.: 22B0704

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By



Cassie L. Mosher
Laboratory Manager

Date: 02/22/2022





Sample Information

Client Sample ID: 138_PE-23_6

York Sample ID: 22B0704-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22B0704

190051702

Soil

February 15, 2022 12:00 pm

02/15/2022

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	579		mg/kg dry	0.570	1	EPA 6010D	02/15/2022 18:28	02/16/2022 16:33	RTH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	87.7		%	0.100	1	SM 2540G	02/16/2022 10:23	02/16/2022 13:24	MEW
							Certifications:	CTDOH		



Sample Information

Client Sample ID: 139_PE-23_N

York Sample ID: 22B0704-02

York Project (SDG) No.

22B0704

Client Project ID

190051702

Matrix

Soil

Collection Date/Time

February 15, 2022 12:20 pm

Date Received

02/15/2022

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	3180		mg/kg dry	0.581	1	EPA 6010D	02/15/2022 18:28	02/16/2022 16:35	RTH
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP										

Lead TCLP by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.64		mg/L	0.125	1	EPA 6010D/1311	02/22/2022 13:04	02/22/2022 15:37	RTH
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP										

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	86.0		%	0.100	1	SM 2540G	02/16/2022 10:23	02/16/2022 13:24	MEW
Certifications: CTDOH										

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	02/18/2022 15:09	02/19/2022 13:34	GXB
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP										





Sample Information

Client Sample ID: 140_PE-23_E

York Sample ID: 22B0704-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22B0704

190051702

Soil

February 15, 2022 12:40 pm

02/15/2022

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	256		mg/kg dry	0.544	1	EPA 6010D	02/15/2022 18:28	02/16/2022 16:37	RTH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	91.8		%	0.100	1	SM 2540G	02/16/2022 10:23	02/16/2022 13:24	MEW
							Certifications:	CTDOH		



Sample Information

Client Sample ID: 141_PE-23_S

York Sample ID: 22B0704-04

York Project (SDG) No.

22B0704

Client Project ID

190051702

Matrix

Soil

Collection Date/Time

February 15, 2022 1:00 pm

Date Received

02/15/2022

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1230		mg/kg dry	0.565	1	EPA 6010D	02/15/2022 18:28	02/16/2022 16:46	RTH
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP										

Lead TCLP by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.48		mg/L	0.125	1	EPA 6010D/1311	02/22/2022 13:04	02/22/2022 15:40	RTH
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP										

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	88.5		%	0.100	1	SM 2540G	02/16/2022 10:23	02/16/2022 13:24	MEW
Certifications: CTDOH										

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	02/18/2022 15:09	02/19/2022 13:34	GXB
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP										



Sample Information

Client Sample ID: 142_PE-23_W

York Sample ID: 22B0704-05

York Project (SDG) No.

22B0704

Client Project ID

190051702

Matrix

Soil

Collection Date/Time

February 15, 2022 1:30 pm

Date Received

02/15/2022

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	3950		mg/kg dry	0.592	1	EPA 6010D	02/15/2022 18:28	02/16/2022 16:48	RTH
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP										

Lead TCLP by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	2.28		mg/L	0.125	1	EPA 6010D/1311	02/22/2022 13:04	02/22/2022 15:43	RTH
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP										

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	84.4		%	0.100	1	SM 2540G	02/16/2022 10:23	02/16/2022 13:24	MEW
Certifications: CTDOH										

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	02/18/2022 15:09	02/19/2022 13:34	GXB
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP										





Analytical Batch Summary

Batch ID: BB22005 **Preparation Method:** EPA 3050B **Prepared By:** S_G

YORK Sample ID	Client Sample ID	Preparation Date
22B0704-01	138_PE-23_6	02/15/22
22B0704-02	139_PE-23_N	02/15/22
22B0704-03	140_PE-23_E	02/15/22
22B0704-04	141_PE-23_S	02/15/22
22B0704-05	142_PE-23_W	02/15/22
BB22005-BLK1	Blank	02/15/22
BB22005-DUP1	Duplicate	02/15/22
BB22005-MS1	Matrix Spike	02/15/22
BB22005-PS1	Post Spike	02/15/22
BB22005-SRM1	Reference	02/15/22

Batch ID: BB22046 **Preparation Method:** % Solids Prep **Prepared By:** MEW

YORK Sample ID	Client Sample ID	Preparation Date
22B0704-01	138_PE-23_6	02/16/22
22B0704-02	139_PE-23_N	02/16/22
22B0704-03	140_PE-23_E	02/16/22
22B0704-04	141_PE-23_S	02/16/22
22B0704-05	142_PE-23_W	02/16/22
BB22046-DUP1	Duplicate	02/16/22

Batch ID: BB22250 **Preparation Method:** EPA SW 846-1311 TCLP ext. for metals **Prepared By:** TAJ

YORK Sample ID	Client Sample ID	Preparation Date
22B0704-02	139_PE-23_N	02/18/22
22B0704-04	141_PE-23_S	02/18/22
22B0704-05	142_PE-23_W	02/18/22
BB22250-BLK1	Blank	02/18/22

Batch ID: BB22398 **Preparation Method:** EPA 3015A/1311 **Prepared By:** BR

YORK Sample ID	Client Sample ID	Preparation Date
22B0704-02	139_PE-23_N	02/22/22
22B0704-04	141_PE-23_S	02/22/22
22B0704-05	142_PE-23_W	02/22/22
BB22398-BLK1	Blank	02/22/22
BB22398-BS1	LCS	02/22/22
BB22398-LBK1	Leach Fluid Blank	02/22/22



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc.

Analyte		Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BB22005 - EPA 3050B												
Blank (BB22005-BLK1)	Blank									Prepared: 02/15/2022 Analyzed: 02/16/2022		
Lead		ND	0.500	mg/kg wet								
Duplicate (BB22005-DUP1)	Duplicate	*Source sample: 22B0710-09 (Duplicate)								Prepared: 02/15/2022 Analyzed: 02/16/2022		
Lead		33.0	0.597	mg/kg dry		23.5				33.6	35	
Matrix Spike (BB22005-MS1)	Matrix Spike	*Source sample: 22B0710-09 (Matrix Spike)								Prepared: 02/15/2022 Analyzed: 02/16/2022		
Lead		107	0.597	mg/kg dry	59.7	23.5	140	75-125	High Bias			
Post Spike (BB22005-PS1)	Post Spike	*Source sample: 22B0710-09 (Post Spike)								Prepared: 02/15/2022 Analyzed: 02/16/2022		
Lead		0.800		ug/mL	0.500	0.197	121	75-125				
Reference (BB22005-SRM1)	Reference									Prepared: 02/15/2022 Analyzed: 02/16/2022		
Lead		178	0.500	mg/kg wet	130		137	71.8-128.5	High Bias			
Batch BB22398 - EPA 3015A/1311												
Blank (BB22398-BLK1)	Blank									Prepared & Analyzed: 02/22/2022		
Lead		ND	0.00556	mg/L								
LCS (BB22398-BS1)	LCS									Prepared & Analyzed: 02/22/2022		
Lead		0.553		ug/mL	0.500		111	80-120				
Leach Fluid Blank (BB22398-LFB)	Leach Fluid Blank									Prepared & Analyzed: 02/22/2022		
Lead		ND	0.125	mg/L								



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BB22046 - % Solids Prep

Duplicate (BB22046-DUP1)	Duplicate	*Source sample: 22B0704-05 (142 PE-23 W)						Prepared & Analyzed: 02/16/2022			
% Solids		84.6		0.100	%		84.4		0.219	20	



Leachate Preparations - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BB22250 - EPA SW 846-1311 TCLP ext. for metals

Blank (BB22250-BLK1)	TCLP LEACH BLANK							Prepared: 02/18/2022 Analyzed: 02/19/2022			
TCLP Extraction	Completed	1.00	N/A								





Sample and Data Qualifiers Relating to This Work Order

M-SPKM	The spike recovery is not within acceptance windows due to sample non-homogeneity, or matrix interference.
EXT-Temp	Extraction temperture slightly exceeded acceptance range.
EXT-COMP	Completed

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.



For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Revision Description: This report has been revised to report TCLP Pb for select samples.



ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-246010-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

3/4/2022 4:37:57 PM

Grace Chang, Project Manager II
(732)593-2579

Grace.Chang@Eurofinset.com

Designee for

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Grace Chang
Project Manager II
3/4/2022 4:37:57 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	11
Client Sample Results	18
Surrogate Summary	60
Isotope Dilution Summary	63
QC Sample Results	65
QC Association Summary	92
Lab Chronicle	101
Certification Summary	109
Method Summary	111
Sample Summary	112
Chain of Custody	113
Receipt Checklists	117



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Job ID: 460-246010-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-246010-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 10/27/2021 7:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.5° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

2-Butanone (MEK) and Chlorobenzene failed the recovery criteria low for LCS 460-810773/3. Refer to the QC report for details.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 10/29/2021 and analyzed on 11/02/2021 and 11/03/2021.

The laboratory control sample (LCS) for analytical batch 460-810773 recovered outside control limits for the following analytes: 2-Butanone (MEK) and Chlorobenzene. These analytes were biased low in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 107_TB-6 (460-246010-11) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 10/31/2021.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Job ID: 460-246010-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 10/29/2021 and analyzed on 10/30/2021.

Several analytes failed the recovery criteria low for the MS of sample 460-246026-1 in batch 460-810280.

Several analytes failed the recovery criteria low for the MSD of sample 460-246026-1 in batch 460-810280.

Refer to the QC report for details.

Samples 103_PE-15 (460-246010-7)[2X] and 105_PE-16 (460-246010-9)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 460-810280 was outside the method criteria for the following analyte(s): Benzo[a]pyrene and Dibenzo(a,h)anthracene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-810255 was outside the method criteria for the following analyte(s): Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-810400 was outside the method criteria for the following analyte(s): Benzo[a]pyrene and Benzo[b]fluoranthene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 10/31/2021 and analyzed on 11/01/2021 and 11/02/2021.

DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 103_PE-15 (460-246010-7). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 105_PE-16 (460-246010-9). Refer to the QC report for details.

Endosulfan II failed the recovery criteria high for LCSD 460-810503/3-A. Refer to the QC report for details.

Dieldrin, Endosulfan II and Endrin failed the recovery criteria high for the MS of sample 097_PE-2MS (460-246010-1) in batch 460-810578.

Several analytes failed the recovery criteria high for the MSD of sample 097_PE-2MSD (460-246010-1) in batch 460-810578.

Refer to the QC report for details.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Job ID: 460-246010-1 (Continued)

Laboratory: Eurofins Edison (Continued)

The %RPD between the primary and confirmation column / detector exceeded 40% for Endrin for the following sample: 098_PE-3 (460-246010-2). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: 098_PE-3 (460-246010-2), 102_PE-14 (460-246010-6) and 103_PE-15 (460-246010-7). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: 105_PE-16 (460-246010-9). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

The continuing calibration verification (CCV) for DCB Decachlorobiphenyl exceeded control criteria on the primary column but within control limits on secondary column. The sample were reported on the secondary column for analytes detected. The data have been qualified and reported. (CCVIS 460-810767/3)

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 10/31/2021 and analyzed on 11/01/2021, 11/02/2021 and 11/03/2021.

DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 106_PE-18 (460-246010-10). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 098_PE-3 (460-246010-2). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 104_PE-9 (460-246010-8). Refer to the QC report for details.

The Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: 098_PE-3 (460-246010-2). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Decachlorobiphenyl surrogate recovery for this sample was outside control limits but Tetrachloro-m-xylene surrogate recovery within control limits; therefore the data have been qualified and reported. 104_PE-9 (460-246010-8)

The Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: 106_PE-18 (460-246010-10). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 11/02/2021 and analyzed on 11/03/2021.

2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria low for 099_PE-5 (460-246010-3). Refer to the QC report for details.

The 2,4-Dichlorophenylacetic acid surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: 099_PE-5 (460-246010-3). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Job ID: 460-246010-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 11/04/2021 and analyzed on 11/06/2021.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 11/03/2021 and analyzed on 11/04/2021.

Barium, Manganese and Nickel failed the recovery criteria high for the MS of sample 460-246007-1 in batch 460-811334.

Barium and Chromium failed the recovery criteria high for the MSD of sample 460-246007-1 in batch 460-811334. Manganese exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 10/31/2021 and analyzed on 11/01/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 11/03/2021.

Mercury exceeded the RPD limit for the duplicate of sample 460-246139-1. Refer to the QC report for details.

Samples 098_PE-3 (460-246010-2)[3X], 100_PE-8 (460-246010-4)[5X], 101_PE-7 (460-246010-5)[5X] and 103_PE-15 (460-246010-7)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Hg analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Job ID: 460-246010-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All other quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 10/29/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 11/02/2021 and analyzed on 11/03/2021.

Cyanide, Total failed the recovery criteria high for the MSD of sample 097_PE-2MSD (460-246010-1) in batch 460-811215.

Refer to the QC report for details.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 097_PE-2 (460-246010-1), 098_PE-3 (460-246010-2), 099_PE-5 (460-246010-3), 100_PE-8 (460-246010-4), 101_PE-7 (460-246010-5), 102_PE-14 (460-246010-6), 103_PE-15 (460-246010-7), 104_PE-9 (460-246010-8), 105_PE-16 (460-246010-9) and 106_PE-18 (460-246010-10) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 11/01/2021 and 11/02/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 097_PE-2

Lab Sample ID: 460-246010-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	6.5	J	370	6.4	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	12	J	370	3.7	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	5.8	J	370	5.2	ug/Kg	1	✱	8270E	Total/NA
Fluorene	12	J	370	5.1	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	110	J	370	6.5	ug/Kg	1	✱	8270E	Total/NA
Anthracene	28	J	370	11	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	220	J	370	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	210	J	370	9.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	120		37	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	120	J	370	6.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	140		37	9.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	57		37	7.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	110		37	9.9	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	100		37	15	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	54	J	370	11	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanoic acid	0.29	J	0.62	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.69		0.62	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	2.1		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	42.6		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.38	J	0.42	0.060	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.4		2.1	0.28	mg/Kg	1	✱	6020B	Total/NA
Copper	11.6		2.1	0.39	mg/Kg	1	✱	6020B	Total/NA
Manganese	272		4.2	0.42	mg/Kg	1	✱	6020B	Total/NA
Nickel	11.2		2.1	0.49	mg/Kg	1	✱	6020B	Total/NA
Lead	26.9		0.63	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	36.1		8.4	3.2	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	12.4		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 098_PE-3

Lab Sample ID: 460-246010-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenol	20	J	380	14	ug/Kg	1	✱	8270E	Total/NA
3 & 4 Methylphenol	33	J	380	24	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	210	J	380	6.6	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	440		380	3.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	430		380	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	220	J	380	5.4	ug/Kg	1	✱	8270E	Total/NA
Fluorene	510		380	5.2	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	6200		380	6.7	ug/Kg	1	✱	8270E	Total/NA
Anthracene	1200		380	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	8400		380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	8800		380	9.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	5000		38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	5000		380	6.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	6500		38	9.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	2700		38	7.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	4800		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	2700		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	730		38	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	2300		380	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDE	31		7.7	0.91	ug/Kg	1	✱	8081B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 098_PE-3 (Continued)

Lab Sample ID: 460-246010-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	59		7.7	1.4	ug/Kg	1	✱	8081B	Total/NA
Endrin	2.9	J p	7.7	1.1	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanoic acid	0.29	J	0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	2.22		0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.49	J	1.1	0.098	mg/Kg	1	✱	6020B	Total/NA
Arsenic	12.4		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	293		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.41	J	0.44	0.063	mg/Kg	1	✱	6020B	Total/NA
Cadmium	3.5		1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	34.6		2.2	0.29	mg/Kg	1	✱	6020B	Total/NA
Copper	1130		2.2	0.40	mg/Kg	1	✱	6020B	Total/NA
Manganese	384		4.4	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	64.5		2.2	0.52	mg/Kg	1	✱	6020B	Total/NA
Lead	923		0.66	0.22	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.58	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	2090		8.8	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	1.1		0.058	0.027	mg/Kg	3	✱	7471B	Total/NA
Cr (III)	34.6		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cyanide, Total	0.46		0.24	0.13	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 099_PE-5

Lab Sample ID: 460-246010-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	24	J	370	6.5	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	30	J	370	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	28	J	370	9.2	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	20	J	37	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	18	J	370	6.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	17	J	37	9.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	9.0	J	37	7.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	13	J	37	9.9	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanoic acid	0.40	J	0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.46	J	0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.6		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	25.2		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.32	J	0.43	0.062	mg/Kg	1	✱	6020B	Total/NA
Chromium	13.8		2.2	0.29	mg/Kg	1	✱	6020B	Total/NA
Copper	8.9		2.2	0.40	mg/Kg	1	✱	6020B	Total/NA
Manganese	216		4.3	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	11.5		2.2	0.51	mg/Kg	1	✱	6020B	Total/NA
Lead	7.0		0.65	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	31.7		8.6	3.3	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	13.8		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 100_PE-8

Lab Sample ID: 460-246010-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.39	J	1.1	0.32	ug/Kg	1	✱	8260D	Total/NA
Naphthalene	27	J	390	6.7	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	35	J	390	3.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	22	J	390	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	18	J	390	5.5	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 100_PE-8 (Continued)

Lab Sample ID: 460-246010-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	28	J	390	5.3	ug/Kg	1	✖	8270E	Total/NA
Phenanthrene	540		390	6.8	ug/Kg	1	✖	8270E	Total/NA
Anthracene	96	J	390	12	ug/Kg	1	✖	8270E	Total/NA
Fluoranthene	850		390	14	ug/Kg	1	✖	8270E	Total/NA
Pyrene	900		390	9.7	ug/Kg	1	✖	8270E	Total/NA
Benzo[a]anthracene	450		39	14	ug/Kg	1	✖	8270E	Total/NA
Chrysene	470		390	6.6	ug/Kg	1	✖	8270E	Total/NA
Benzo[b]fluoranthene	580		39	10	ug/Kg	1	✖	8270E	Total/NA
Benzo[k]fluoranthene	230		39	7.6	ug/Kg	1	✖	8270E	Total/NA
Benzo[a]pyrene	520		39	10	ug/Kg	1	✖	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	340		39	15	ug/Kg	1	✖	8270E	Total/NA
Dibenz(a,h)anthracene	93		39	17	ug/Kg	1	✖	8270E	Total/NA
Benzo[g,h,i]perylene	320	J	390	11	ug/Kg	1	✖	8270E	Total/NA
4,4'-DDD	5.8	J	7.9	1.3	ug/Kg	1	✖	8081B	Total/NA
4,4'-DDE	21		7.9	0.93	ug/Kg	1	✖	8081B	Total/NA
4,4'-DDT	57		7.9	1.4	ug/Kg	1	✖	8081B	Total/NA
Perfluorooctanoic acid	0.73		0.64	0.21	ug/Kg	1	✖	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.57	J	0.64	0.21	ug/Kg	1	✖	537 IDA	Total/NA
Silver	0.34	J	1.1	0.097	mg/Kg	1	✖	6020B	Total/NA
Arsenic	4.8		1.1	0.11	mg/Kg	1	✖	6020B	Total/NA
Barium	136		2.2	0.16	mg/Kg	1	✖	6020B	Total/NA
Beryllium	0.42	J	0.43	0.062	mg/Kg	1	✖	6020B	Total/NA
Cadmium	0.40	J	1.1	0.12	mg/Kg	1	✖	6020B	Total/NA
Chromium	16.7		2.2	0.29	mg/Kg	1	✖	6020B	Total/NA
Copper	38.7		2.2	0.40	mg/Kg	1	✖	6020B	Total/NA
Manganese	371		4.3	0.44	mg/Kg	1	✖	6020B	Total/NA
Nickel	14.0		2.2	0.51	mg/Kg	1	✖	6020B	Total/NA
Lead	332		0.65	0.22	mg/Kg	1	✖	6020B	Total/NA
Selenium	0.33	J	1.4	0.14	mg/Kg	1	✖	6020B	Total/NA
Zinc	214		8.7	3.3	mg/Kg	1	✖	6020B	Total/NA
Mercury	1.7		0.091	0.043	mg/Kg	5	✖	7471B	Total/NA
Cr (III)	16.7		2.0	2.0	mg/Kg	1	✖	7196A	Total/NA
Cyanide, Total	0.18	J	0.23	0.13	mg/Kg	1	✖	9012B	Total/NA

Client Sample ID: 101_PE-7

Lab Sample ID: 460-246010-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.43	J	0.85	0.26	ug/Kg	1	✖	8260D	Total/NA
Naphthalene	130	J	380	6.6	ug/Kg	1	✖	8270E	Total/NA
Acenaphthylene	63	J	380	3.8	ug/Kg	1	✖	8270E	Total/NA
Acenaphthene	92	J	380	11	ug/Kg	1	✖	8270E	Total/NA
Dibenzofuran	86	J	380	5.3	ug/Kg	1	✖	8270E	Total/NA
Fluorene	110	J	380	5.2	ug/Kg	1	✖	8270E	Total/NA
Phenanthrene	1400		380	6.7	ug/Kg	1	✖	8270E	Total/NA
Anthracene	360	J	380	12	ug/Kg	1	✖	8270E	Total/NA
Fluoranthene	2500		380	13	ug/Kg	1	✖	8270E	Total/NA
Pyrene	2300		380	9.5	ug/Kg	1	✖	8270E	Total/NA
Benzo[a]anthracene	1300		38	13	ug/Kg	1	✖	8270E	Total/NA
Chrysene	1400		380	6.4	ug/Kg	1	✖	8270E	Total/NA
Benzo[b]fluoranthene	1800		38	9.8	ug/Kg	1	✖	8270E	Total/NA
Benzo[k]fluoranthene	650		38	7.5	ug/Kg	1	✖	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 101_PE-7 (Continued)

Lab Sample ID: 460-246010-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	1300		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	760		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	200		38	16	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	630		380	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	4.6	J	7.7	1.3	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDE	16		7.7	0.91	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	22		7.7	1.4	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanoic acid	0.25	J	0.63	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	1.01		0.63	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.31	J	1.1	0.099	mg/Kg	1	✱	6020B	Total/NA
Arsenic	5.4		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	113		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.33	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.58	J	1.1	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	15.6		2.2	0.30	mg/Kg	1	✱	6020B	Total/NA
Copper	82.3		2.2	0.41	mg/Kg	1	✱	6020B	Total/NA
Manganese	335		4.5	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	13.3		2.2	0.52	mg/Kg	1	✱	6020B	Total/NA
Lead	316		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.59	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	242		8.9	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	2.0		0.093	0.044	mg/Kg	5	✱	7471B	Total/NA
Cr (III)	15.6		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cyanide, Total	0.15	J	0.28	0.15	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 102_PE-14

Lab Sample ID: 460-246010-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.45	J	1.0	0.31	ug/Kg	1	✱	8260D	Total/NA
Naphthalene	150	J	400	6.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	190	J	400	4.0	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	210	J	400	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	180	J	400	5.6	ug/Kg	1	✱	8270E	Total/NA
Fluorene	250	J	400	5.4	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	3500		400	7.0	ug/Kg	1	✱	8270E	Total/NA
Anthracene	930		400	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	7400		400	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	7100		400	9.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	4000		40	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	4000		400	6.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	5500		40	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	2500		40	7.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	3900		40	11	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	2300		40	16	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	610		40	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	1900		400	12	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	7.6	J	8.1	1.4	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDE	19		8.1	0.95	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	67		8.1	1.5	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.67		0.66	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.26	J	1.2	0.10	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 102_PE-14 (Continued)

Lab Sample ID: 460-246010-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.2		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	229		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.36	J	0.47	0.067	mg/Kg	1	✱	6020B	Total/NA
Cadmium	1.5		1.2	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	19.0		2.3	0.31	mg/Kg	1	✱	6020B	Total/NA
Copper	127		2.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Manganese	330		4.7	0.47	mg/Kg	1	✱	6020B	Total/NA
Nickel	24.1		2.3	0.55	mg/Kg	1	✱	6020B	Total/NA
Lead	854		0.70	0.23	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.72	J	1.5	0.15	mg/Kg	1	✱	6020B	Total/NA
Zinc	464		9.4	3.6	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.76		0.019	0.0090	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	19.0		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 103_PE-15

Lab Sample ID: 460-246010-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.1		5.3	5.0	ug/Kg	1	✱	8260D	Total/NA
Tetrachloroethene	0.86	J	0.88	0.27	ug/Kg	1	✱	8260D	Total/NA
Phenol	17	J	380	14	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	140	J	380	6.6	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	230	J	380	3.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	300	J	380	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	180	J	380	5.3	ug/Kg	1	✱	8270E	Total/NA
Fluorene	330	J	380	5.2	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	5300		380	6.7	ug/Kg	1	✱	8270E	Total/NA
Anthracene	1300		380	12	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	6100		38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	5500		380	6.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	7800		38	9.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	2800		38	7.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	5700		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	3300		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	840		38	16	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	2600		380	11	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene - DL	12000		760	27	ug/Kg	2	✱	8270E	Total/NA
Pyrene - DL	11000		760	19	ug/Kg	2	✱	8270E	Total/NA
4,4'-DDD	48		7.7	1.3	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDE	120		7.7	0.91	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	260		7.7	1.4	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.96		0.63	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.44	J	1.1	0.096	mg/Kg	1	✱	6020B	Total/NA
Arsenic	6.6		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	167		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.40	J	0.43	0.062	mg/Kg	1	✱	6020B	Total/NA
Cadmium	1.3		1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	19.3		2.2	0.29	mg/Kg	1	✱	6020B	Total/NA
Copper	99.9		2.2	0.40	mg/Kg	1	✱	6020B	Total/NA
Manganese	348		4.3	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	19.6		2.2	0.51	mg/Kg	1	✱	6020B	Total/NA
Lead	544		0.65	0.22	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 103_PE-15 (Continued)

Lab Sample ID: 460-246010-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.33	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	527		8.7	3.3	mg/Kg	1	✱	6020B	Total/NA
Mercury	1.2		0.057	0.027	mg/Kg	3	✱	7471B	Total/NA
Cr (III)	19.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 104_PE-9

Lab Sample ID: 460-246010-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	16	J	410	7.2	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	20	J	410	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	18	J	410	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	19	J	41	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	11	J	410	7.0	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	16	J	41	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDT	2.4	J	8.3	1.5	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanoic acid	0.32	J	0.74	0.25	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	1.64		0.74	0.25	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.11	J	1.2	0.10	mg/Kg	1	✱	6020B	Total/NA
Arsenic	4.9		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	70.3		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.57		0.47	0.066	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.18	J	1.2	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	19.3		2.3	0.31	mg/Kg	1	✱	6020B	Total/NA
Copper	21.4		2.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Manganese	1110		4.7	0.47	mg/Kg	1	✱	6020B	Total/NA
Nickel	14.7		2.3	0.55	mg/Kg	1	✱	6020B	Total/NA
Lead	142		0.70	0.23	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.36	J	1.5	0.15	mg/Kg	1	✱	6020B	Total/NA
Zinc	112		9.3	3.6	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.39		0.020	0.0093	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	19.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 105_PE-16

Lab Sample ID: 460-246010-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenol	320	J	400	15	ug/Kg	1	✱	8270E	Total/NA
2-Methylphenol	280	J	400	15	ug/Kg	1	✱	8270E	Total/NA
3 & 4 Methylphenol	560		400	25	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	5000		400	6.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	440		400	4.0	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	4100		400	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	4100		400	5.6	ug/Kg	1	✱	8270E	Total/NA
Fluorene	6600		400	5.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	4700		40	7.9	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	5500		40	16	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	1600		40	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	4100		400	12	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene - DL	38000		2000	35	ug/Kg	5	✱	8270E	Total/NA
Anthracene - DL	17000		2000	61	ug/Kg	5	✱	8270E	Total/NA
Fluoranthene - DL	31000		2000	70	ug/Kg	5	✱	8270E	Total/NA
Pyrene - DL	25000		2000	50	ug/Kg	5	✱	8270E	Total/NA
Benzo[a]anthracene - DL	13000		200	70	ug/Kg	5	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 105_PE-16 (Continued)

Lab Sample ID: 460-246010-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene - DL	12000		2000	34	ug/Kg	5	✱	8270E	Total/NA
Benzo[b]fluoranthene - DL	15000		200	52	ug/Kg	5	✱	8270E	Total/NA
Benzo[a]pyrene - DL	11000		200	53	ug/Kg	5	✱	8270E	Total/NA
4,4'-DDD	110		8.1	1.4	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDE	39		8.1	0.96	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	66		8.1	1.5	ug/Kg	1	✱	8081B	Total/NA
Silver	0.22	J	1.1	0.099	mg/Kg	1	✱	6020B	Total/NA
Arsenic	6.3		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	70.5		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.42	J	0.44	0.063	mg/Kg	1	✱	6020B	Total/NA
Chromium	20.9		2.2	0.30	mg/Kg	1	✱	6020B	Total/NA
Copper	40.1		2.2	0.41	mg/Kg	1	✱	6020B	Total/NA
Manganese	122		4.4	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	16.7		2.2	0.52	mg/Kg	1	✱	6020B	Total/NA
Lead	171		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Selenium	2.1		1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	76.5		8.9	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.83		0.021	0.0097	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	20.9		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cyanide, Total	0.25	J	0.27	0.15	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 106_PE-18

Lab Sample ID: 460-246010-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	22	J	380	6.7	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	48	J	380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	47	J	380	9.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	35	J	38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	28	J	380	6.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	38		38	9.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	21	J	38	7.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	26	J	38	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	16	J	380	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDT	2.3	J	7.7	1.4	ug/Kg	1	✱	8081B	Total/NA
Silver	0.67	J	1.1	0.096	mg/Kg	1	✱	6020B	Total/NA
Arsenic	2.5		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	62.8		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.40	J	0.43	0.062	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.6		2.2	0.29	mg/Kg	1	✱	6020B	Total/NA
Copper	14.0		2.2	0.40	mg/Kg	1	✱	6020B	Total/NA
Manganese	346		4.3	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	11.4		2.2	0.51	mg/Kg	1	✱	6020B	Total/NA
Lead	89.4		0.65	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	46.9		8.6	3.3	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.41		0.019	0.0089	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	12.6		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 107_TB-6

Lab Sample ID: 460-246010-11

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 097_PE-2

Lab Sample ID: 460-246010-1

Date Collected: 10/27/21 12:10

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 88.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.89	U	0.89	0.21	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,1-Dichloroethane	0.89	U	0.89	0.18	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,1-Dichloroethene	0.89	U	0.89	0.20	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,2,4-Trimethylbenzene	0.89	U	0.89	0.22	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,2-Dichlorobenzene	0.89	U	0.89	0.32	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,2-Dichloroethane	0.89	U	0.89	0.26	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,3,5-Trimethylbenzene	0.89	U	0.89	0.28	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,3-Dichlorobenzene	0.89	U	0.89	0.33	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,4-Dichlorobenzene	0.89	U	0.89	0.20	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
1,4-Dioxane	18	U	18	8.2	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
2-Butanone (MEK)	4.5	U *	4.5	0.33	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Acetone	5.4	U	5.4	5.1	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Benzene	0.89	U	0.89	0.23	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Carbon tetrachloride	0.89	U	0.89	0.35	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Chlorobenzene	0.89	U *	0.89	0.16	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Chloroform	0.89	U	0.89	0.87	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
cis-1,2-Dichloroethene	0.89	U	0.89	0.32	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Ethylbenzene	0.89	U	0.89	0.18	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Methyl tert-butyl ether	0.89	U	0.89	0.46	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
n-Butylbenzene	0.89	U	0.89	0.26	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
N-Propylbenzene	0.89	U	0.89	0.16	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
sec-Butylbenzene	0.89	U	0.89	0.26	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
tert-Butylbenzene	0.89	U	0.89	0.25	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Tetrachloroethene	0.89	U	0.89	0.27	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Toluene	0.89	U	0.89	0.21	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
trans-1,2-Dichloroethene	0.89	U	0.89	0.22	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Trichloroethene	0.89	U	0.89	0.29	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Vinyl chloride	0.89	U	0.89	0.49	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1
Xylenes, Total	1.8	U	1.8	0.57	ug/Kg	✱	10/29/21 14:54	11/02/21 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 145	10/29/21 14:54	11/02/21 10:48	1
4-Bromofluorobenzene	100		70 - 139	10/29/21 14:54	11/02/21 10:48	1
Dibromofluoromethane (Surr)	106		48 - 150	10/29/21 14:54	11/02/21 10:48	1
Toluene-d8 (Surr)	90		80 - 120	10/29/21 14:54	11/02/21 10:48	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	370	U	370	14	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
2-Methylphenol	370	U	370	14	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
3 & 4 Methylphenol	370	U	370	23	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Pentachlorophenol	300	U	300	76	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Naphthalene	6.5	J	370	6.4	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Acenaphthylene	12	J	370	3.7	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Acenaphthene	370	U	370	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Dibenzofuran	5.8	J	370	5.2	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Fluorene	12	J	370	5.1	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Hexachlorobenzene	37	U	37	18	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Phenanthrene	110	J	370	6.5	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 097_PE-2

Lab Sample ID: 460-246010-1

Date Collected: 10/27/21 12:10

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 88.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	28	J	370	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Fluoranthene	220	J	370	13	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Pyrene	210	J	370	9.3	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Benzo[a]anthracene	120		37	13	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Chrysene	120	J	370	6.3	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Benzo[b]fluoranthene	140		37	9.6	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Benzo[k]fluoranthene	57		37	7.3	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Benzo[a]pyrene	110		37	9.9	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Indeno[1,2,3-cd]pyrene	100		37	15	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Dibenz(a,h)anthracene	37	U	37	16	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
Benzo[g,h,i]perylene	54	J	370	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1
1,4-Dioxane	37	U	37	33	ug/Kg	✱	10/29/21 10:03	10/30/21 05:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	50		11 - 104	10/29/21 10:03	10/30/21 05:17	1
Phenol-d5 (Surr)	50		15 - 100	10/29/21 10:03	10/30/21 05:17	1
Terphenyl-d14 (Surr)	56		12 - 126	10/29/21 10:03	10/30/21 05:17	1
2,4,6-Tribromophenol (Surr)	37		10 - 123	10/29/21 10:03	10/30/21 05:17	1
2-Fluorophenol (Surr)	52		10 - 105	10/29/21 10:03	10/30/21 05:17	1
2-Fluorobiphenyl	48		14 - 103	10/29/21 10:03	10/30/21 05:17	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.5	U	7.5	1.3	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
4,4'-DDE	7.5	U	7.5	0.89	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
4,4'-DDT	7.5	U	7.5	1.4	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Aldrin	7.5	U	7.5	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
alpha-BHC	2.3	U	2.3	0.77	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
beta-BHC	2.3	U	2.3	0.84	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Chlordane (technical)	75	U	75	18	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
delta-BHC	2.3	U	2.3	0.46	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Dieldrin	2.3	U	2.3	0.98	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Endosulfan I	7.5	U	7.5	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Endosulfan II	7.5	U *	7.5	1.9	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Endosulfan sulfate	7.5	U	7.5	0.95	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Endrin	7.5	U	7.5	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Endrin aldehyde	7.5	U	7.5	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Endrin ketone	7.5	U	7.5	1.5	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
gamma-BHC (Lindane)	2.3	U	2.3	0.70	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Heptachlor	7.5	U	7.5	0.89	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Heptachlor epoxide	7.5	U	7.5	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Methoxychlor	7.5	U	7.5	1.7	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
Toxaphene	75	U	75	27	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1
cis-Chlordane	7.5	U	7.5	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		10 - 150	10/31/21 08:58	11/01/21 13:20	1
DCB Decachlorobiphenyl	113		10 - 150	10/31/21 08:58	11/01/21 13:20	1
Tetrachloro-m-xylene	70		10 - 133	10/31/21 08:58	11/01/21 13:20	1
Tetrachloro-m-xylene	72		10 - 133	10/31/21 08:58	11/01/21 13:20	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 097_PE-2

Lab Sample ID: 460-246010-1

Date Collected: 10/27/21 12:10

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 88.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Aroclor 1221	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Aroclor 1232	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Aroclor 1242	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Aroclor 1248	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Aroclor 1254	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Aroclor 1260	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Aroclor-1262	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Aroclor 1268	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1
Polychlorinated biphenyls, Total	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	129		37 - 150	10/31/21 08:47	11/01/21 19:13	1
DCB Decachlorobiphenyl	137		37 - 150	10/31/21 08:47	11/01/21 19:13	1
Tetrachloro-m-xylene	92		54 - 150	10/31/21 08:47	11/01/21 19:13	1
Tetrachloro-m-xylene	91		54 - 150	10/31/21 08:47	11/01/21 19:13	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	3.9	ug/Kg	✱	11/02/21 21:40	11/03/21 11:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	137		65 - 150	11/02/21 21:40	11/03/21 11:30	1
2,4-Dichlorophenylacetic acid	127		65 - 150	11/02/21 21:40	11/03/21 11:30	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluoroheptanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorooctanoic acid	0.29	J	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorononanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorodecanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorotridecanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorotetradecanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorobutanesulfonic acid	2.07	U	2.07	0.41	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorohexanesulfonic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorooctanesulfonic acid	0.69		0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
NEtFOSAA	2.07	U	2.07	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
NMeFOSAA	2.07	U	2.07	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluoroheptanesulfonic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorodecanesulfonic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorooctanesulfonamide	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorobutanoic acid	2.07	U	2.07	0.83	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluoroundecanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluorododecanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
6:2 Fluorotelomer sulfonic acid	2.07	U	2.07	0.62	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
8:2 Fluorotelomer sulfonic acid	3.10	U	3.10	0.62	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1
Perfluoropentanoic acid	0.62	U	0.62	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	93		10 - 178	11/04/21 09:15	11/06/21 00:42	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 097_PE-2

Lab Sample ID: 460-246010-1

Date Collected: 10/27/21 12:10

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 88.8

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	77		10 - 182	11/04/21 09:15	11/06/21 00:42	1
13C5 PFHxA	82		11 - 138	11/04/21 09:15	11/06/21 00:42	1
13C4 PFHpA	84		15 - 139	11/04/21 09:15	11/06/21 00:42	1
13C8 PFOA	83		21 - 133	11/04/21 09:15	11/06/21 00:42	1
13C9 PFNA	81		15 - 145	11/04/21 09:15	11/06/21 00:42	1
13C6 PFDA	84		21 - 134	11/04/21 09:15	11/06/21 00:42	1
13C7 PFUnA	83		15 - 138	11/04/21 09:15	11/06/21 00:42	1
13C2-PFDoDA	82		28 - 126	11/04/21 09:15	11/06/21 00:42	1
13C2 PFTeDA	83		10 - 138	11/04/21 09:15	11/06/21 00:42	1
13C3 PFBS	92		23 - 130	11/04/21 09:15	11/06/21 00:42	1
13C3 PFHxS	92		24 - 136	11/04/21 09:15	11/06/21 00:42	1
13C8 PFOS	78		31 - 130	11/04/21 09:15	11/06/21 00:42	1
d3-NMeFOSAA	71		10 - 172	11/04/21 09:15	11/06/21 00:42	1
d5-NEtFOSAA	92		10 - 176	11/04/21 09:15	11/06/21 00:42	1
13C8 FOSA	83		25 - 135	11/04/21 09:15	11/06/21 00:42	1
13C4 PFBA	83		12 - 137	11/04/21 09:15	11/06/21 00:42	1
13C5 PFPeA	90		12 - 135	11/04/21 09:15	11/06/21 00:42	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.094	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Arsenic	2.1		1.1	0.11	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Barium	42.6		2.1	0.15	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Beryllium	0.38	J	0.42	0.060	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Chromium	12.4		2.1	0.28	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Copper	11.6		2.1	0.39	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Manganese	272		4.2	0.42	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Nickel	11.2		2.1	0.49	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Lead	26.9		0.63	0.21	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Selenium	1.3	U	1.3	0.13	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1
Zinc	36.1		8.4	3.2	mg/Kg	✱	11/03/21 03:39	11/04/21 13:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	U	0.019	0.0090	mg/Kg	✱	11/03/21 03:42	11/03/21 09:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.4		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.3	U	2.3	0.96	mg/Kg	✱	10/31/21 08:54	11/01/21 13:15	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	11/02/21 18:11	11/03/21 21:01	1
Percent Moisture	11.2		1.0	1.0	%			11/01/21 00:24	1
Percent Solids	88.8		1.0	1.0	%			11/01/21 00:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 098_PE-3

Lab Sample ID: 460-246010-2

Date Collected: 10/27/21 12:20

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.96	U	0.96	0.22	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,1-Dichloroethane	0.96	U	0.96	0.20	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,1-Dichloroethene	0.96	U	0.96	0.22	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,2,4-Trimethylbenzene	0.96	U	0.96	0.24	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,2-Dichlorobenzene	0.96	U	0.96	0.35	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,2-Dichloroethane	0.96	U	0.96	0.28	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,3,5-Trimethylbenzene	0.96	U	0.96	0.30	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,3-Dichlorobenzene	0.96	U	0.96	0.35	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,4-Dichlorobenzene	0.96	U	0.96	0.22	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
1,4-Dioxane	19	U	19	8.8	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
2-Butanone (MEK)	4.8	U *	4.8	0.35	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Acetone	5.7	U	5.7	5.5	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Benzene	0.96	U	0.96	0.25	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Carbon tetrachloride	0.96	U	0.96	0.37	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Chlorobenzene	0.96	U *	0.96	0.17	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Chloroform	0.96	U	0.96	0.93	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
cis-1,2-Dichloroethene	0.96	U	0.96	0.34	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Ethylbenzene	0.96	U	0.96	0.19	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Methyl tert-butyl ether	0.96	U	0.96	0.49	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
n-Butylbenzene	0.96	U	0.96	0.28	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
N-Propylbenzene	0.96	U	0.96	0.17	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
sec-Butylbenzene	0.96	U	0.96	0.28	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
tert-Butylbenzene	0.96	U	0.96	0.26	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Tetrachloroethene	0.96	U	0.96	0.29	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Toluene	0.96	U	0.96	0.22	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
trans-1,2-Dichloroethene	0.96	U	0.96	0.24	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Trichloroethene	0.96	U	0.96	0.31	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Vinyl chloride	0.96	U	0.96	0.52	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1
Xylenes, Total	1.9	U	1.9	0.61	ug/Kg	☆	10/29/21 14:54	11/02/21 11:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 145	10/29/21 14:54	11/02/21 11:10	1
4-Bromofluorobenzene	101		70 - 139	10/29/21 14:54	11/02/21 11:10	1
Dibromofluoromethane (Surr)	106		48 - 150	10/29/21 14:54	11/02/21 11:10	1
Toluene-d8 (Surr)	91		80 - 120	10/29/21 14:54	11/02/21 11:10	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	20	J	380	14	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
3 & 4 Methylphenol	33	J	380	24	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
Pentachlorophenol	310	U	310	78	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
Naphthalene	210	J	380	6.6	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
Acenaphthylene	440		380	3.8	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
Acenaphthene	430		380	11	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
Dibenzofuran	220	J	380	5.4	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
Fluorene	510		380	5.2	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1
Phenanthrene	6200		380	6.7	ug/Kg	☆	10/29/21 10:03	10/30/21 05:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 098_PE-3

Lab Sample ID: 460-246010-2

Date Collected: 10/27/21 12:20

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	1200		380	12	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Fluoranthene	8400		380	13	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Pyrene	8800		380	9.5	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Benzo[a]anthracene	5000		38	13	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Chrysene	5000		380	6.5	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Benzo[b]fluoranthene	6500		38	9.9	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Benzo[k]fluoranthene	2700		38	7.5	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Benzo[a]pyrene	4800		38	10	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Indeno[1,2,3-cd]pyrene	2700		38	15	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Dibenz(a,h)anthracene	730		38	17	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
Benzo[g,h,i]perylene	2300		380	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	10/29/21 10:03	10/30/21 05:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	52		11 - 104	10/29/21 10:03	10/30/21 05:54	1
Phenol-d5 (Surr)	57		15 - 100	10/29/21 10:03	10/30/21 05:54	1
Terphenyl-d14 (Surr)	60		12 - 126	10/29/21 10:03	10/30/21 05:54	1
2,4,6-Tribromophenol (Surr)	54		10 - 123	10/29/21 10:03	10/30/21 05:54	1
2-Fluorophenol (Surr)	57		10 - 105	10/29/21 10:03	10/30/21 05:54	1
2-Fluorobiphenyl	58		14 - 103	10/29/21 10:03	10/30/21 05:54	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.7	U	7.7	1.3	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
4,4'-DDE	31		7.7	0.91	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
4,4'-DDT	59		7.7	1.4	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
alpha-BHC	2.3	U	2.3	0.78	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Chlordane (technical)	77	U	77	19	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Endosulfan II	7.7	U *	7.7	2.0	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Endosulfan sulfate	7.7	U	7.7	0.97	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Endrin	2.9	J p	7.7	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Heptachlor	7.7	U	7.7	0.91	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Heptachlor epoxide	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Methoxychlor	7.7	U	7.7	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
Toxaphene	77	U	77	28	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		10 - 150	10/31/21 08:58	11/01/21 13:36	1
DCB Decachlorobiphenyl	168	*	10 - 150	10/31/21 08:58	11/01/21 13:36	1
Tetrachloro-m-xylene	78		10 - 133	10/31/21 08:58	11/01/21 13:36	1
Tetrachloro-m-xylene	74		10 - 133	10/31/21 08:58	11/01/21 13:36	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 098_PE-3

Lab Sample ID: 460-246010-2

Date Collected: 10/27/21 12:20

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Aroclor 1221	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Aroclor 1232	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Aroclor 1242	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Aroclor 1248	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Aroclor 1254	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Aroclor 1260	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Aroclor-1262	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Aroclor 1268	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1
Polychlorinated biphenyls, Total	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	144		37 - 150	10/31/21 08:47	11/01/21 20:03	1
DCB Decachlorobiphenyl	155	*	37 - 150	10/31/21 08:47	11/01/21 20:03	1
Tetrachloro-m-xylene	101		54 - 150	10/31/21 08:47	11/01/21 20:03	1
Tetrachloro-m-xylene	91		54 - 150	10/31/21 08:47	11/01/21 20:03	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	✱	11/02/21 21:40	11/03/21 11:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	93		65 - 150	11/02/21 21:40	11/03/21 11:43	1
2,4-Dichlorophenylacetic acid	122		65 - 150	11/02/21 21:40	11/03/21 11:43	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluoroheptanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorooctanoic acid	0.29	J	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorononanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorodecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorotridecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorotetradecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorobutanesulfonic acid	2.14	U	2.14	0.43	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorohexanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorooctanesulfonic acid	2.22		0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
NEtFOSAA	2.14	U	2.14	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
NMeFOSAA	2.14	U	2.14	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluoroheptanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorodecanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorooctanesulfonamide	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorobutanoic acid	2.14	U	2.14	0.85	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluoroundecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluorododecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
6:2 Fluorotelomer sulfonic acid	2.14	U	2.14	0.64	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
8:2 Fluorotelomer sulfonic acid	3.20	U	3.20	0.64	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1
Perfluoropentanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 00:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	149		10 - 178	11/04/21 09:15	11/06/21 00:53	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 098_PE-3

Date Collected: 10/27/21 12:20

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-2

Matrix: Solid

Percent Solids: 86.7

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	100		10 - 182	11/04/21 09:15	11/06/21 00:53	1
13C5 PFHxA	83		11 - 138	11/04/21 09:15	11/06/21 00:53	1
13C4 PFHpA	85		15 - 139	11/04/21 09:15	11/06/21 00:53	1
13C8 PFOA	84		21 - 133	11/04/21 09:15	11/06/21 00:53	1
13C9 PFNA	91		15 - 145	11/04/21 09:15	11/06/21 00:53	1
13C6 PFDA	90		21 - 134	11/04/21 09:15	11/06/21 00:53	1
13C7 PFUnA	84		15 - 138	11/04/21 09:15	11/06/21 00:53	1
13C2-PFDoDA	86		28 - 126	11/04/21 09:15	11/06/21 00:53	1
13C2 PFTeDA	82		10 - 138	11/04/21 09:15	11/06/21 00:53	1
13C3 PFBS	99		23 - 130	11/04/21 09:15	11/06/21 00:53	1
13C3 PFHxS	93		24 - 136	11/04/21 09:15	11/06/21 00:53	1
13C8 PFOS	92		31 - 130	11/04/21 09:15	11/06/21 00:53	1
d3-NMeFOSAA	82		10 - 172	11/04/21 09:15	11/06/21 00:53	1
d5-NEtFOSAA	95		10 - 176	11/04/21 09:15	11/06/21 00:53	1
13C8 FOSA	86		25 - 135	11/04/21 09:15	11/06/21 00:53	1
13C4 PFBA	88		12 - 137	11/04/21 09:15	11/06/21 00:53	1
13C5 PFPeA	93		12 - 135	11/04/21 09:15	11/06/21 00:53	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.49	J	1.1	0.098	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Arsenic	12.4		1.1	0.11	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Barium	293		2.2	0.16	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Beryllium	0.41	J	0.44	0.063	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Cadmium	3.5		1.1	0.12	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Chromium	34.6		2.2	0.29	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Copper	1130		2.2	0.40	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Manganese	384		4.4	0.44	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Nickel	64.5		2.2	0.52	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Lead	923		0.66	0.22	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Selenium	0.58	J	1.4	0.14	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1
Zinc	2090		8.8	3.4	mg/Kg	✱	11/03/21 03:39	11/04/21 16:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.1		0.058	0.027	mg/Kg	✱	11/03/21 03:42	11/03/21 10:17	3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	34.6		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	✱	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.46		0.24	0.13	mg/Kg	✱	11/02/21 18:11	11/03/21 21:07	1
Percent Moisture	13.3		1.0	1.0	%			11/01/21 00:24	1
Percent Solids	86.7		1.0	1.0	%			11/01/21 00:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 099_PE-5

Lab Sample ID: 460-246010-3

Date Collected: 10/27/21 12:40

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 89.1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.91	U	0.91	0.21	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,1-Dichloroethane	0.91	U	0.91	0.19	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,1-Dichloroethene	0.91	U	0.91	0.21	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,2,4-Trimethylbenzene	0.91	U	0.91	0.22	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,2-Dichlorobenzene	0.91	U	0.91	0.33	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,2-Dichloroethane	0.91	U	0.91	0.27	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,3,5-Trimethylbenzene	0.91	U	0.91	0.29	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,3-Dichlorobenzene	0.91	U	0.91	0.33	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,4-Dichlorobenzene	0.91	U	0.91	0.21	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
1,4-Dioxane	18	U	18	8.4	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
2-Butanone (MEK)	4.6	U *	4.6	0.34	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Acetone	5.5	U	5.5	5.2	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Benzene	0.91	U	0.91	0.24	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Carbon tetrachloride	0.91	U	0.91	0.35	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Chlorobenzene	0.91	U *	0.91	0.16	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Chloroform	0.91	U	0.91	0.88	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
cis-1,2-Dichloroethene	0.91	U	0.91	0.33	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Ethylbenzene	0.91	U	0.91	0.18	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Methyl tert-butyl ether	0.91	U	0.91	0.47	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
n-Butylbenzene	0.91	U	0.91	0.27	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
N-Propylbenzene	0.91	U	0.91	0.16	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
sec-Butylbenzene	0.91	U	0.91	0.26	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
tert-Butylbenzene	0.91	U	0.91	0.25	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Tetrachloroethene	0.91	U	0.91	0.28	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Toluene	0.91	U	0.91	0.21	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
trans-1,2-Dichloroethene	0.91	U	0.91	0.22	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Trichloroethene	0.91	U	0.91	0.29	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Vinyl chloride	0.91	U	0.91	0.50	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1
Xylenes, Total	1.8	U	1.8	0.59	ug/Kg	✱	10/29/21 14:55	11/02/21 11:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 145	10/29/21 14:55	11/02/21 11:32	1
4-Bromofluorobenzene	98		70 - 139	10/29/21 14:55	11/02/21 11:32	1
Dibromofluoromethane (Surr)	114		48 - 150	10/29/21 14:55	11/02/21 11:32	1
Toluene-d8 (Surr)	92		80 - 120	10/29/21 14:55	11/02/21 11:32	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	370	U	370	14	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
2-Methylphenol	370	U	370	14	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
3 & 4 Methylphenol	370	U	370	23	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Pentachlorophenol	300	U	300	76	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Naphthalene	370	U	370	6.4	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Acenaphthylene	370	U	370	3.7	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Acenaphthene	370	U	370	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Dibenzofuran	370	U	370	5.2	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Fluorene	370	U	370	5.0	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Hexachlorobenzene	37	U	37	18	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Phenanthrene	24	J	370	6.5	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 099_PE-5

Lab Sample ID: 460-246010-3

Date Collected: 10/27/21 12:40

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 89.1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	370	U	370	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Fluoranthene	30	J	370	13	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Pyrene	28	J	370	9.2	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Benzo[a]anthracene	20	J	37	13	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Chrysene	18	J	370	6.3	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Benzo[b]fluoranthene	17	J	37	9.6	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Benzo[k]fluoranthene	9.0	J	37	7.3	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Benzo[a]pyrene	13	J	37	9.9	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Indeno[1,2,3-cd]pyrene	37	U	37	15	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Dibenz(a,h)anthracene	37	U	37	16	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
Benzo[g,h,i]perylene	370	U	370	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1
1,4-Dioxane	37	U	37	32	ug/Kg	✱	10/29/21 10:03	10/30/21 05:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		11 - 104	10/29/21 10:03	10/30/21 05:34	1
Phenol-d5 (Surr)	55		15 - 100	10/29/21 10:03	10/30/21 05:34	1
Terphenyl-d14 (Surr)	54		12 - 126	10/29/21 10:03	10/30/21 05:34	1
2,4,6-Tribromophenol (Surr)	43		10 - 123	10/29/21 10:03	10/30/21 05:34	1
2-Fluorophenol (Surr)	55		10 - 105	10/29/21 10:03	10/30/21 05:34	1
2-Fluorobiphenyl	48		14 - 103	10/29/21 10:03	10/30/21 05:34	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.5	U	7.5	1.3	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
4,4'-DDE	7.5	U	7.5	0.89	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
4,4'-DDT	7.5	U	7.5	1.4	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Aldrin	7.5	U	7.5	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
alpha-BHC	2.2	U	2.2	0.76	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
beta-BHC	2.2	U	2.2	0.84	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Chlordane (technical)	75	U	75	18	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
delta-BHC	2.2	U	2.2	0.46	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Dieldrin	2.2	U	2.2	0.98	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Endosulfan I	7.5	U	7.5	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Endosulfan II	7.5	U *	7.5	1.9	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Endosulfan sulfate	7.5	U	7.5	0.94	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Endrin	7.5	U	7.5	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Endrin aldehyde	7.5	U	7.5	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Endrin ketone	7.5	U	7.5	1.5	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
gamma-BHC (Lindane)	2.2	U	2.2	0.70	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Heptachlor	7.5	U	7.5	0.89	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Heptachlor epoxide	7.5	U	7.5	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Methoxychlor	7.5	U	7.5	1.7	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
Toxaphene	75	U	75	27	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1
cis-Chlordane	7.5	U	7.5	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	108		10 - 150	10/31/21 08:58	11/01/21 13:52	1
DCB Decachlorobiphenyl	123		10 - 150	10/31/21 08:58	11/01/21 13:52	1
Tetrachloro-m-xylene	73		10 - 133	10/31/21 08:58	11/01/21 13:52	1
Tetrachloro-m-xylene	71		10 - 133	10/31/21 08:58	11/01/21 13:52	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 099_PE-5

Lab Sample ID: 460-246010-3

Date Collected: 10/27/21 12:40

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 89.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Aroclor 1221	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Aroclor 1232	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Aroclor 1242	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Aroclor 1248	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Aroclor 1254	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Aroclor 1260	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Aroclor-1262	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Aroclor 1268	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1
Polychlorinated biphenyls, Total	75	U	75	20	ug/Kg	✱	10/31/21 08:47	11/01/21 20:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	129		37 - 150	10/31/21 08:47	11/01/21 20:19	1
DCB Decachlorobiphenyl	138		37 - 150	10/31/21 08:47	11/01/21 20:19	1
Tetrachloro-m-xylene	85		54 - 150	10/31/21 08:47	11/01/21 20:19	1
Tetrachloro-m-xylene	84		54 - 150	10/31/21 08:47	11/01/21 20:19	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	37	U	37	3.9	ug/Kg	✱	11/02/21 21:40	11/03/21 11:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	55	*	65 - 150	11/02/21 21:40	11/03/21 11:57	1
2,4-Dichlorophenylacetic acid	109		65 - 150	11/02/21 21:40	11/03/21 11:57	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluoroheptanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorooctanoic acid	0.40	J	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorononanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorodecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorotridecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorotetradecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorobutanesulfonic acid	2.12	U	2.12	0.42	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorohexanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorooctanesulfonic acid	0.46	J	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
NEtFOSAA	2.12	U	2.12	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
NMeFOSAA	2.12	U	2.12	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluoroheptanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorodecanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorooctanesulfonamide	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorobutanoic acid	2.12	U	2.12	0.85	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluoroundecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluorododecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
6:2 Fluorotelomer sulfonic acid	2.12	U	2.12	0.64	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
8:2 Fluorotelomer sulfonic acid	3.18	U	3.18	0.64	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1
Perfluoropentanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	127		10 - 178	11/04/21 09:15	11/06/21 01:04	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 099_PE-5

Lab Sample ID: 460-246010-3

Date Collected: 10/27/21 12:40

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 89.1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	95		10 - 182	11/04/21 09:15	11/06/21 01:04	1
13C5 PFHxA	92		11 - 138	11/04/21 09:15	11/06/21 01:04	1
13C4 PFHpA	94		15 - 139	11/04/21 09:15	11/06/21 01:04	1
13C8 PFOA	91		21 - 133	11/04/21 09:15	11/06/21 01:04	1
13C9 PFNA	89		15 - 145	11/04/21 09:15	11/06/21 01:04	1
13C6 PFDA	95		21 - 134	11/04/21 09:15	11/06/21 01:04	1
13C7 PFUnA	89		15 - 138	11/04/21 09:15	11/06/21 01:04	1
13C2-PFDoDA	90		28 - 126	11/04/21 09:15	11/06/21 01:04	1
13C2 PFTeDA	89		10 - 138	11/04/21 09:15	11/06/21 01:04	1
13C3 PFBS	102		23 - 130	11/04/21 09:15	11/06/21 01:04	1
13C3 PFHxS	99		24 - 136	11/04/21 09:15	11/06/21 01:04	1
13C8 PFOS	94		31 - 130	11/04/21 09:15	11/06/21 01:04	1
d3-NMeFOSAA	67		10 - 172	11/04/21 09:15	11/06/21 01:04	1
d5-NEtFOSAA	87		10 - 176	11/04/21 09:15	11/06/21 01:04	1
13C8 FOSA	96		25 - 135	11/04/21 09:15	11/06/21 01:04	1
13C4 PFBA	93		12 - 137	11/04/21 09:15	11/06/21 01:04	1
13C5 PFPeA	99		12 - 135	11/04/21 09:15	11/06/21 01:04	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.096	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Arsenic	1.6		1.1	0.11	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Barium	25.2		2.2	0.16	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Beryllium	0.32	J	0.43	0.062	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Chromium	13.8		2.2	0.29	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Copper	8.9		2.2	0.40	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Manganese	216		4.3	0.44	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Nickel	11.5		2.2	0.51	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Lead	7.0		0.65	0.22	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Selenium	1.3	U	1.3	0.14	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1
Zinc	31.7		8.6	3.3	mg/Kg	✱	11/03/21 03:39	11/04/21 17:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	U	0.019	0.0088	mg/Kg	✱	11/03/21 03:42	11/03/21 10:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	13.8		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.2	U	2.2	0.95	mg/Kg	✱	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.23	U	0.23	0.13	mg/Kg	✱	11/02/21 18:11	11/03/21 21:08	1
Percent Moisture	10.9		1.0	1.0	%			11/01/21 00:24	1
Percent Solids	89.1		1.0	1.0	%			11/01/21 00:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 100_PE-8

Lab Sample ID: 460-246010-4

Date Collected: 10/27/21 12:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 85.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,1-Dichloroethane	1.1	U	1.1	0.22	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,1-Dichloroethene	1.1	U	1.1	0.24	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,2,4-Trimethylbenzene	1.1	U	1.1	0.26	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,2-Dichlorobenzene	1.1	U	1.1	0.38	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,2-Dichloroethane	1.1	U	1.1	0.31	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,3,5-Trimethylbenzene	1.1	U	1.1	0.33	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,3-Dichlorobenzene	1.1	U	1.1	0.38	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,4-Dichlorobenzene	1.1	U	1.1	0.24	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
1,4-Dioxane	21	U	21	9.7	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
2-Butanone (MEK)	5.3	U *	5.3	0.39	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Acetone	6.3	U	6.3	6.0	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Benzene	1.1	U	1.1	0.27	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Carbon tetrachloride	1.1	U	1.1	0.41	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Chlorobenzene	1.1	U *	1.1	0.19	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Chloroform	1.1	U	1.1	1.0	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
cis-1,2-Dichloroethene	1.1	U	1.1	0.38	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Ethylbenzene	1.1	U	1.1	0.21	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Methyl tert-butyl ether	1.1	U	1.1	0.54	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Methylene Chloride	2.1	U	2.1	1.2	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
n-Butylbenzene	1.1	U	1.1	0.31	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
N-Propylbenzene	1.1	U	1.1	0.18	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
sec-Butylbenzene	1.1	U	1.1	0.30	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
tert-Butylbenzene	1.1	U	1.1	0.29	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Tetrachloroethene	0.39	J	1.1	0.32	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Toluene	1.1	U	1.1	0.25	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
trans-1,2-Dichloroethene	1.1	U	1.1	0.26	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Trichloroethene	1.1	U	1.1	0.34	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Vinyl chloride	1.1	U	1.1	0.57	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1
Xylenes, Total	2.1	U	2.1	0.68	ug/Kg	☼	10/29/21 14:55	11/02/21 11:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 145	10/29/21 14:55	11/02/21 11:54	1
4-Bromofluorobenzene	95		70 - 139	10/29/21 14:55	11/02/21 11:54	1
Dibromofluoromethane (Surr)	103		48 - 150	10/29/21 14:55	11/02/21 11:54	1
Toluene-d8 (Surr)	86		80 - 120	10/29/21 14:55	11/02/21 11:54	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
2-Methylphenol	390	U	390	14	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
Pentachlorophenol	310	U	310	80	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
Naphthalene	27	J	390	6.7	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
Acenaphthylene	35	J	390	3.9	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
Acenaphthene	22	J	390	11	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
Dibenzofuran	18	J	390	5.5	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
Fluorene	28	J	390	5.3	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
Hexachlorobenzene	39	U	39	18	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1
Phenanthrene	540		390	6.8	ug/Kg	☼	10/29/21 10:03	10/30/21 06:08	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 100_PE-8

Lab Sample ID: 460-246010-4

Date Collected: 10/27/21 12:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 85.2

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	96	J	390	12	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Fluoranthene	850		390	14	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Pyrene	900		390	9.7	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[a]anthracene	450		39	14	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Chrysene	470		390	6.6	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[b]fluoranthene	580		39	10	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[k]fluoranthene	230		39	7.6	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[a]pyrene	520		39	10	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Indeno[1,2,3-cd]pyrene	340		39	15	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Dibenz(a,h)anthracene	93		39	17	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[g,h,i]perylene	320	J	390	11	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
1,4-Dioxane	39	U	39	34	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	53		11 - 104	10/29/21 10:03	10/30/21 06:08	1
Phenol-d5 (Surr)	55		15 - 100	10/29/21 10:03	10/30/21 06:08	1
Terphenyl-d14 (Surr)	71		12 - 126	10/29/21 10:03	10/30/21 06:08	1
2,4,6-Tribromophenol (Surr)	61		10 - 123	10/29/21 10:03	10/30/21 06:08	1
2-Fluorophenol (Surr)	46		10 - 105	10/29/21 10:03	10/30/21 06:08	1
2-Fluorobiphenyl	52		14 - 103	10/29/21 10:03	10/30/21 06:08	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.8	J	7.9	1.3	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
4,4'-DDE	21		7.9	0.93	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
4,4'-DDT	57		7.9	1.4	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Aldrin	7.9	U	7.9	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
alpha-BHC	2.3	U	2.3	0.80	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
beta-BHC	2.3	U	2.3	0.88	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Chlordane (technical)	79	U	79	19	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Endosulfan I	7.9	U	7.9	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Endosulfan II	7.9	U *	7.9	2.0	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Endosulfan sulfate	7.9	U	7.9	0.99	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Endrin	7.9	U	7.9	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Endrin aldehyde	7.9	U	7.9	1.9	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Endrin ketone	7.9	U	7.9	1.5	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
gamma-BHC (Lindane)	2.3	U	2.3	0.73	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Heptachlor	7.9	U	7.9	0.93	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Heptachlor epoxide	7.9	U	7.9	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Methoxychlor	7.9	U	7.9	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
Toxaphene	79	U	79	28	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1
cis-Chlordane	7.9	U	7.9	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	121		10 - 150	10/31/21 08:58	11/01/21 14:08	1
DCB Decachlorobiphenyl	128		10 - 150	10/31/21 08:58	11/01/21 14:08	1
Tetrachloro-m-xylene	81		10 - 133	10/31/21 08:58	11/01/21 14:08	1
Tetrachloro-m-xylene	83		10 - 133	10/31/21 08:58	11/01/21 14:08	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 100_PE-8

Lab Sample ID: 460-246010-4

Date Collected: 10/27/21 12:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 85.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Aroclor 1221	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Aroclor 1232	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Aroclor 1242	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Aroclor 1248	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Aroclor 1254	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Aroclor 1260	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Aroclor-1262	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Aroclor 1268	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1
Polychlorinated biphenyls, Total	79	U	79	21	ug/Kg	✱	10/31/21 08:47	11/01/21 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	133		37 - 150	10/31/21 08:47	11/01/21 20:36	1
DCB Decachlorobiphenyl	140		37 - 150	10/31/21 08:47	11/01/21 20:36	1
Tetrachloro-m-xylene	102		54 - 150	10/31/21 08:47	11/01/21 20:36	1
Tetrachloro-m-xylene	102		54 - 150	10/31/21 08:47	11/01/21 20:36	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	✱	11/02/21 21:40	11/03/21 12:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	102		65 - 150	11/02/21 21:40	11/03/21 12:10	1
2,4-Dichlorophenylacetic acid	106		65 - 150	11/02/21 21:40	11/03/21 12:10	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluoroheptanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorooctanoic acid	0.73		0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorononanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorodecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorotridecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorotetradecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorobutanesulfonic acid	2.13	U	2.13	0.43	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorohexanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorooctanesulfonic acid	0.57	J	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
NEtFOSAA	2.13	U	2.13	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
NMeFOSAA	2.13	U	2.13	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluoroheptanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorodecanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorooctanesulfonamide	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorobutanoic acid	2.13	U	2.13	0.85	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluoroundecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluorododecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
6:2 Fluorotelomer sulfonic acid	2.13	U	2.13	0.64	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
8:2 Fluorotelomer sulfonic acid	3.20	U	3.20	0.64	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1
Perfluoropentanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	111		10 - 178	11/04/21 09:15	11/06/21 01:16	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 100_PE-8

Lab Sample ID: 460-246010-4

Date Collected: 10/27/21 12:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 85.2

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	84		10 - 182	11/04/21 09:15	11/06/21 01:16	1
13C5 PFHxA	82		11 - 138	11/04/21 09:15	11/06/21 01:16	1
13C4 PFHpA	86		15 - 139	11/04/21 09:15	11/06/21 01:16	1
13C8 PFOA	87		21 - 133	11/04/21 09:15	11/06/21 01:16	1
13C9 PFNA	88		15 - 145	11/04/21 09:15	11/06/21 01:16	1
13C6 PFDA	90		21 - 134	11/04/21 09:15	11/06/21 01:16	1
13C7 PFUnA	91		15 - 138	11/04/21 09:15	11/06/21 01:16	1
13C2-PFDoDA	88		28 - 126	11/04/21 09:15	11/06/21 01:16	1
13C2 PFTeDA	87		10 - 138	11/04/21 09:15	11/06/21 01:16	1
13C3 PFBS	99		23 - 130	11/04/21 09:15	11/06/21 01:16	1
13C3 PFHxS	94		24 - 136	11/04/21 09:15	11/06/21 01:16	1
13C8 PFOS	90		31 - 130	11/04/21 09:15	11/06/21 01:16	1
d3-NMeFOSAA	65		10 - 172	11/04/21 09:15	11/06/21 01:16	1
d5-NEtFOSAA	94		10 - 176	11/04/21 09:15	11/06/21 01:16	1
13C8 FOSA	93		25 - 135	11/04/21 09:15	11/06/21 01:16	1
13C4 PFBA	89		12 - 137	11/04/21 09:15	11/06/21 01:16	1
13C5 PFPeA	95		12 - 135	11/04/21 09:15	11/06/21 01:16	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.34	J	1.1	0.097	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Arsenic	4.8		1.1	0.11	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Barium	136		2.2	0.16	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Beryllium	0.42	J	0.43	0.062	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Cadmium	0.40	J	1.1	0.12	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Chromium	16.7		2.2	0.29	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Copper	38.7		2.2	0.40	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Manganese	371		4.3	0.44	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Nickel	14.0		2.2	0.51	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Lead	332		0.65	0.22	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Selenium	0.33	J	1.4	0.14	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1
Zinc	214		8.7	3.3	mg/Kg	✱	11/03/21 03:39	11/04/21 17:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.7		0.091	0.043	mg/Kg	✱	11/03/21 03:42	11/03/21 10:20	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	16.7		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.3	U	2.3	1.0	mg/Kg	✱	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.18	J	0.23	0.13	mg/Kg	✱	11/02/21 18:11	11/03/21 21:09	1
Percent Moisture	14.8		1.0	1.0	%			11/02/21 01:21	1
Percent Solids	85.2		1.0	1.0	%			11/02/21 01:21	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 101_PE-7

Lab Sample ID: 460-246010-5

Date Collected: 10/27/21 13:00

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.85	U	0.85	0.20	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,1-Dichloroethane	0.85	U	0.85	0.18	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,1-Dichloroethene	0.85	U	0.85	0.19	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,2,4-Trimethylbenzene	0.85	U	0.85	0.21	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,2-Dichlorobenzene	0.85	U	0.85	0.31	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,2-Dichloroethane	0.85	U	0.85	0.25	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,3,5-Trimethylbenzene	0.85	U	0.85	0.27	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,3-Dichlorobenzene	0.85	U	0.85	0.31	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,4-Dichlorobenzene	0.85	U	0.85	0.19	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
1,4-Dioxane	17	U	17	7.8	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
2-Butanone (MEK)	4.3	U *	4.3	0.31	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Acetone	5.1	U	5.1	4.9	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Benzene	0.85	U	0.85	0.22	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Carbon tetrachloride	0.85	U	0.85	0.33	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Chlorobenzene	0.85	U *	0.85	0.15	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Chloroform	0.85	U	0.85	0.83	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
cis-1,2-Dichloroethene	0.85	U	0.85	0.31	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Ethylbenzene	0.85	U	0.85	0.17	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Methyl tert-butyl ether	0.85	U	0.85	0.44	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Methylene Chloride	1.7	U	1.7	0.98	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
n-Butylbenzene	0.85	U	0.85	0.25	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
N-Propylbenzene	0.85	U	0.85	0.15	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
sec-Butylbenzene	0.85	U	0.85	0.25	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
tert-Butylbenzene	0.85	U	0.85	0.24	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Tetrachloroethene	0.43	J	0.85	0.26	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Toluene	0.85	U	0.85	0.20	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
trans-1,2-Dichloroethene	0.85	U	0.85	0.21	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Trichloroethene	0.85	U	0.85	0.27	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Vinyl chloride	0.85	U	0.85	0.47	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1
Xylenes, Total	1.7	U	1.7	0.55	ug/Kg	☆	10/29/21 14:56	11/02/21 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 145	10/29/21 14:56	11/02/21 18:30	1
4-Bromofluorobenzene	98		70 - 139	10/29/21 14:56	11/02/21 18:30	1
Dibromofluoromethane (Surr)	103		48 - 150	10/29/21 14:56	11/02/21 18:30	1
Toluene-d8 (Surr)	89		80 - 120	10/29/21 14:56	11/02/21 18:30	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
Pentachlorophenol	310	U	310	78	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
Naphthalene	130	J	380	6.6	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
Acenaphthylene	63	J	380	3.8	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
Acenaphthene	92	J	380	11	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
Dibenzofuran	86	J	380	5.3	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
Fluorene	110	J	380	5.2	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1
Phenanthrene	1400		380	6.7	ug/Kg	☆	10/29/21 10:03	10/30/21 04:22	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 101_PE-7

Lab Sample ID: 460-246010-5

Date Collected: 10/27/21 13:00

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	360	J	380	12	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Fluoranthene	2500		380	13	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Pyrene	2300		380	9.5	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Benzo[a]anthracene	1300		38	13	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Chrysene	1400		380	6.4	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Benzo[b]fluoranthene	1800		38	9.8	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Benzo[k]fluoranthene	650		38	7.5	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Benzo[a]pyrene	1300		38	10	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Indeno[1,2,3-cd]pyrene	760		38	15	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Dibenz(a,h)anthracene	200		38	16	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
Benzo[g,h,i]perylene	630		380	11	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	10/29/21 10:03	10/30/21 04:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	53		11 - 104	10/29/21 10:03	10/30/21 04:22	1
Phenol-d5 (Surr)	60		15 - 100	10/29/21 10:03	10/30/21 04:22	1
Terphenyl-d14 (Surr)	61		12 - 126	10/29/21 10:03	10/30/21 04:22	1
2,4,6-Tribromophenol (Surr)	59		10 - 123	10/29/21 10:03	10/30/21 04:22	1
2-Fluorophenol (Surr)	58		10 - 105	10/29/21 10:03	10/30/21 04:22	1
2-Fluorobiphenyl	59		14 - 103	10/29/21 10:03	10/30/21 04:22	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	4.6	J	7.7	1.3	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
4,4'-DDE	16		7.7	0.91	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
4,4'-DDT	22		7.7	1.4	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
alpha-BHC	2.3	U	2.3	0.78	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
beta-BHC	2.3	U	2.3	0.86	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Chlordane (technical)	77	U	77	19	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Endosulfan II	7.7	U *	7.7	2.0	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Endosulfan sulfate	7.7	U	7.7	0.97	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Endrin	7.7	U	7.7	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
gamma-BHC (Lindane)	2.3	U	2.3	0.71	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Heptachlor	7.7	U	7.7	0.91	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Heptachlor epoxide	7.7	U	7.7	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Methoxychlor	7.7	U	7.7	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
Toxaphene	77	U	77	28	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		10 - 150	10/31/21 08:58	11/01/21 14:24	1
DCB Decachlorobiphenyl	128		10 - 150	10/31/21 08:58	11/01/21 14:24	1
Tetrachloro-m-xylene	87		10 - 133	10/31/21 08:58	11/01/21 14:24	1
Tetrachloro-m-xylene	87		10 - 133	10/31/21 08:58	11/01/21 14:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 101_PE-7

Lab Sample ID: 460-246010-5

Date Collected: 10/27/21 13:00

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Aroclor 1221	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Aroclor 1232	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Aroclor 1242	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Aroclor 1248	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Aroclor 1254	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Aroclor 1260	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Aroclor-1262	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Aroclor 1268	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1
Polychlorinated biphenyls, Total	77	U	77	20	ug/Kg	✱	10/31/21 08:47	11/03/21 09:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	124		37 - 150	10/31/21 08:47	11/03/21 09:49	1
DCB Decachlorobiphenyl	134		37 - 150	10/31/21 08:47	11/03/21 09:49	1
Tetrachloro-m-xylene	93		54 - 150	10/31/21 08:47	11/03/21 09:49	1
Tetrachloro-m-xylene	115		54 - 150	10/31/21 08:47	11/03/21 09:49	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	✱	11/02/21 21:40	11/03/21 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	98		65 - 150	11/02/21 21:40	11/03/21 12:24	1
2,4-Dichlorophenylacetic acid	120		65 - 150	11/02/21 21:40	11/03/21 12:24	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluoroheptanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorooctanoic acid	0.25	J	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorononanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorodecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorotridecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorotetradecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorobutanesulfonic acid	2.09	U	2.09	0.42	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorohexanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorooctanesulfonic acid	1.01		0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
NEtFOSAA	2.09	U	2.09	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
NMeFOSAA	2.09	U	2.09	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluoroheptanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorodecanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorooctanesulfonamide	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorobutanoic acid	2.09	U	2.09	0.84	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluoroundecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluorododecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
6:2 Fluorotelomer sulfonic acid	2.09	U	2.09	0.63	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
8:2 Fluorotelomer sulfonic acid	3.14	U	3.14	0.63	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1
Perfluoropentanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	113		10 - 178	11/04/21 09:15	11/06/21 01:27	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 101_PE-7

Lab Sample ID: 460-246010-5

Date Collected: 10/27/21 13:00

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.0

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	86		10 - 182	11/04/21 09:15	11/06/21 01:27	1
13C5 PFHxA	83		11 - 138	11/04/21 09:15	11/06/21 01:27	1
13C4 PFHpA	83		15 - 139	11/04/21 09:15	11/06/21 01:27	1
13C8 PFOA	82		21 - 133	11/04/21 09:15	11/06/21 01:27	1
13C9 PFNA	90		15 - 145	11/04/21 09:15	11/06/21 01:27	1
13C6 PFDA	82		21 - 134	11/04/21 09:15	11/06/21 01:27	1
13C7 PFUnA	81		15 - 138	11/04/21 09:15	11/06/21 01:27	1
13C2-PFDoDA	82		28 - 126	11/04/21 09:15	11/06/21 01:27	1
13C2 PFTeDA	79		10 - 138	11/04/21 09:15	11/06/21 01:27	1
13C3 PFBS	92		23 - 130	11/04/21 09:15	11/06/21 01:27	1
13C3 PFHxS	89		24 - 136	11/04/21 09:15	11/06/21 01:27	1
13C8 PFOS	87		31 - 130	11/04/21 09:15	11/06/21 01:27	1
d3-NMeFOSAA	76		10 - 172	11/04/21 09:15	11/06/21 01:27	1
d5-NEtFOSAA	97		10 - 176	11/04/21 09:15	11/06/21 01:27	1
13C8 FOSA	82		25 - 135	11/04/21 09:15	11/06/21 01:27	1
13C4 PFBA	84		12 - 137	11/04/21 09:15	11/06/21 01:27	1
13C5 PFPeA	90		12 - 135	11/04/21 09:15	11/06/21 01:27	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.31	J	1.1	0.099	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Arsenic	5.4		1.1	0.11	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Barium	113		2.2	0.16	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Beryllium	0.33	J	0.45	0.064	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Cadmium	0.58	J	1.1	0.13	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Chromium	15.6		2.2	0.30	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Copper	82.3		2.2	0.41	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Manganese	335		4.5	0.45	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Nickel	13.3		2.2	0.52	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Lead	316		0.67	0.22	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Selenium	0.59	J	1.4	0.14	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1
Zinc	242		8.9	3.4	mg/Kg	✱	11/03/21 03:39	11/04/21 17:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.0		0.093	0.044	mg/Kg	✱	11/03/21 03:42	11/03/21 10:22	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	15.6		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.3	U	2.3	0.97	mg/Kg	✱	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.15	J	0.28	0.15	mg/Kg	✱	11/02/21 18:11	11/03/21 21:10	1
Percent Moisture	13.0		1.0	1.0	%			11/01/21 00:24	1
Percent Solids	87.0		1.0	1.0	%			11/01/21 00:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 102_PE-14

Lab Sample ID: 460-246010-6

Date Collected: 10/27/21 13:25

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 83.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,2-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.32	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
1,4-Dioxane	20	U	20	9.3	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
2-Butanone (MEK)	5.1	U *	5.1	0.37	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Acetone	6.1	U	6.1	5.8	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Benzene	1.0	U	1.0	0.26	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Chlorobenzene	1.0	U *	1.0	0.18	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Chloroform	1.0	U	1.0	0.99	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.52	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Methylene Chloride	2.0	U	2.0	1.2	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
n-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Tetrachloroethene	0.45	J	1.0	0.31	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Toluene	1.0	U	1.0	0.24	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Trichloroethene	1.0	U	1.0	0.33	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Vinyl chloride	1.0	U	1.0	0.56	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1
Xylenes, Total	2.0	U	2.0	0.65	ug/Kg	☼	10/29/21 14:56	11/02/21 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 145	10/29/21 14:56	11/02/21 13:44	1
4-Bromofluorobenzene	103		70 - 139	10/29/21 14:56	11/02/21 13:44	1
Dibromofluoromethane (Surr)	112		48 - 150	10/29/21 14:56	11/02/21 13:44	1
Toluene-d8 (Surr)	91		80 - 120	10/29/21 14:56	11/02/21 13:44	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
2-Methylphenol	400	U	400	15	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
Pentachlorophenol	320	U	320	82	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
Naphthalene	150	J	400	6.9	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
Acenaphthylene	190	J	400	4.0	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
Acenaphthene	210	J	400	11	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
Dibenzofuran	180	J	400	5.6	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
Fluorene	250	J	400	5.4	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
Hexachlorobenzene	40	U	40	19	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1
Phenanthrene	3500		400	7.0	ug/Kg	☼	10/29/21 10:03	10/30/21 04:46	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 102_PE-14

Lab Sample ID: 460-246010-6

Date Collected: 10/27/21 13:25

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 83.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	930		400	12	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Fluoranthene	7400		400	14	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Pyrene	7100		400	9.9	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Benzo[a]anthracene	4000		40	14	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Chrysene	4000		400	6.7	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Benzo[b]fluoranthene	5500		40	10	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Benzo[k]fluoranthene	2500		40	7.8	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Benzo[a]pyrene	3900		40	11	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Indeno[1,2,3-cd]pyrene	2300		40	16	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Dibenz(a,h)anthracene	610		40	17	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
Benzo[g,h,i]perylene	1900		400	12	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	10/29/21 10:03	10/30/21 04:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		11 - 104	10/29/21 10:03	10/30/21 04:46	1
Phenol-d5 (Surr)	57		15 - 100	10/29/21 10:03	10/30/21 04:46	1
Terphenyl-d14 (Surr)	57		12 - 126	10/29/21 10:03	10/30/21 04:46	1
2,4,6-Tribromophenol (Surr)	52		10 - 123	10/29/21 10:03	10/30/21 04:46	1
2-Fluorophenol (Surr)	56		10 - 105	10/29/21 10:03	10/30/21 04:46	1
2-Fluorobiphenyl	56		14 - 103	10/29/21 10:03	10/30/21 04:46	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.6	J	8.1	1.4	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
4,4'-DDE	19		8.1	0.95	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
4,4'-DDT	67		8.1	1.5	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
beta-BHC	2.4	U	2.4	0.90	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Chlordane (technical)	81	U	81	20	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Endosulfan II	8.1	U *	8.1	2.1	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Endrin	8.1	U	8.1	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Heptachlor	8.1	U	8.1	0.95	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Methoxychlor	8.1	U	8.1	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
Toxaphene	81	U	81	29	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	✱	10/31/21 08:58	11/01/21 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	10/31/21 08:58	11/01/21 14:40	1
DCB Decachlorobiphenyl	151	*	10 - 150	10/31/21 08:58	11/01/21 14:40	1
Tetrachloro-m-xylene	68		10 - 133	10/31/21 08:58	11/01/21 14:40	1
Tetrachloro-m-xylene	71		10 - 133	10/31/21 08:58	11/01/21 14:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 102_PE-14

Lab Sample ID: 460-246010-6

Date Collected: 10/27/21 13:25

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 83.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Aroclor 1221	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Aroclor 1232	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Aroclor 1242	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Aroclor 1248	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Aroclor 1254	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Aroclor 1260	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Aroclor-1262	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Aroclor 1268	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1
Polychlorinated biphenyls, Total	81	U	81	21	ug/Kg	✱	10/31/21 08:47	11/02/21 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	118		37 - 150	10/31/21 08:47	11/02/21 17:22	1
DCB Decachlorobiphenyl	135		37 - 150	10/31/21 08:47	11/02/21 17:22	1
Tetrachloro-m-xylene	91		54 - 150	10/31/21 08:47	11/02/21 17:22	1
Tetrachloro-m-xylene	98		54 - 150	10/31/21 08:47	11/02/21 17:22	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	✱	11/02/21 21:40	11/03/21 12:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	84		65 - 150	11/02/21 21:40	11/03/21 12:37	1
2,4-Dichlorophenylacetic acid	113		65 - 150	11/02/21 21:40	11/03/21 12:37	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluoroheptanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorooctanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorononanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorodecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorotridecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorotetradecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorobutanesulfonic acid	2.19	U	2.19	0.44	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorohexanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorooctanesulfonic acid	0.67		0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
NEtFOSAA	2.19	U	2.19	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
NMeFOSAA	2.19	U	2.19	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluoroheptanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorodecanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorooctanesulfonamide	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorobutanoic acid	2.19	U	2.19	0.88	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluoroundecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluorododecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
6:2 Fluorotelomer sulfonic acid	2.19	U	2.19	0.66	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
8:2 Fluorotelomer sulfonic acid	3.29	U	3.29	0.66	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1
Perfluoropentanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 09:15	11/06/21 01:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	152		10 - 178	11/04/21 09:15	11/06/21 01:38	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 102_PE-14

Lab Sample ID: 460-246010-6

Date Collected: 10/27/21 13:25

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 83.0

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	109		10 - 182	11/04/21 09:15	11/06/21 01:38	1
13C5 PFHxA	85		11 - 138	11/04/21 09:15	11/06/21 01:38	1
13C4 PFHpA	89		15 - 139	11/04/21 09:15	11/06/21 01:38	1
13C8 PFOA	88		21 - 133	11/04/21 09:15	11/06/21 01:38	1
13C9 PFNA	97		15 - 145	11/04/21 09:15	11/06/21 01:38	1
13C6 PFDA	90		21 - 134	11/04/21 09:15	11/06/21 01:38	1
13C7 PFUnA	84		15 - 138	11/04/21 09:15	11/06/21 01:38	1
13C2-PFDoDA	88		28 - 126	11/04/21 09:15	11/06/21 01:38	1
13C2 PFTeDA	82		10 - 138	11/04/21 09:15	11/06/21 01:38	1
13C3 PFBS	102		23 - 130	11/04/21 09:15	11/06/21 01:38	1
13C3 PFHxS	95		24 - 136	11/04/21 09:15	11/06/21 01:38	1
13C8 PFOS	91		31 - 130	11/04/21 09:15	11/06/21 01:38	1
d3-NMeFOSAA	98		10 - 172	11/04/21 09:15	11/06/21 01:38	1
d5-NEtFOSAA	110		10 - 176	11/04/21 09:15	11/06/21 01:38	1
13C8 FOSA	90		25 - 135	11/04/21 09:15	11/06/21 01:38	1
13C4 PFBA	92		12 - 137	11/04/21 09:15	11/06/21 01:38	1
13C5 PFPeA	96		12 - 135	11/04/21 09:15	11/06/21 01:38	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.26	J	1.2	0.10	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Arsenic	8.2		1.2	0.12	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Barium	229		2.3	0.17	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Beryllium	0.36	J	0.47	0.067	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Cadmium	1.5		1.2	0.13	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Chromium	19.0		2.3	0.31	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Copper	127		2.3	0.43	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Manganese	330		4.7	0.47	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Nickel	24.1		2.3	0.55	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Lead	854		0.70	0.23	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Selenium	0.72	J	1.5	0.15	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1
Zinc	464		9.4	3.6	mg/Kg	✱	11/03/21 03:39	11/04/21 17:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.76		0.019	0.0090	mg/Kg	✱	11/03/21 03:56	11/03/21 09:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	19.0		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.27	U	0.27	0.15	mg/Kg	✱	11/02/21 18:11	11/03/21 21:10	1
Percent Moisture	17.0		1.0	1.0	%			11/01/21 00:24	1
Percent Solids	83.0		1.0	1.0	%			11/01/21 00:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 103_PE-15

Lab Sample ID: 460-246010-7

Date Collected: 10/27/21 13:35

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.88	U	0.88	0.20	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,1-Dichloroethane	0.88	U	0.88	0.18	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,1-Dichloroethene	0.88	U	0.88	0.20	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,2,4-Trimethylbenzene	0.88	U	0.88	0.22	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,2-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,2-Dichloroethane	0.88	U	0.88	0.26	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,3,5-Trimethylbenzene	0.88	U	0.88	0.27	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,3-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,4-Dichlorobenzene	0.88	U	0.88	0.20	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
1,4-Dioxane	18	U	18	8.0	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
2-Butanone (MEK)	4.4	U	4.4	0.32	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Acetone	8.1		5.3	5.0	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Benzene	0.88	U	0.88	0.23	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Carbon tetrachloride	0.88	U	0.88	0.34	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Chlorobenzene	0.88	U	0.88	0.15	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Chloroform	0.88	U	0.88	0.85	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
cis-1,2-Dichloroethene	0.88	U	0.88	0.31	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Ethylbenzene	0.88	U	0.88	0.17	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Methyl tert-butyl ether	0.88	U	0.88	0.45	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
n-Butylbenzene	0.88	U	0.88	0.26	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
N-Propylbenzene	0.88	U	0.88	0.15	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
sec-Butylbenzene	0.88	U	0.88	0.25	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
tert-Butylbenzene	0.88	U	0.88	0.24	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Tetrachloroethene	0.86	J	0.88	0.27	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Toluene	0.88	U	0.88	0.20	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
trans-1,2-Dichloroethene	0.88	U	0.88	0.22	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Trichloroethene	0.88	U	0.88	0.28	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Vinyl chloride	0.88	U	0.88	0.48	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1
Xylenes, Total	1.8	U	1.8	0.56	ug/Kg	☆	10/29/21 14:57	11/02/21 23:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 145	10/29/21 14:57	11/02/21 23:10	1
4-Bromofluorobenzene	99		70 - 139	10/29/21 14:57	11/02/21 23:10	1
Dibromofluoromethane (Surr)	104		48 - 150	10/29/21 14:57	11/02/21 23:10	1
Toluene-d8 (Surr)	88		80 - 120	10/29/21 14:57	11/02/21 23:10	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	17	J	380	14	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
Pentachlorophenol	310	U	310	78	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
Naphthalene	140	J	380	6.6	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
Acenaphthylene	230	J	380	3.8	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
Acenaphthene	300	J	380	11	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
Dibenzofuran	180	J	380	5.3	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
Fluorene	330	J	380	5.2	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1
Phenanthrene	5300		380	6.7	ug/Kg	☆	10/29/21 10:03	10/30/21 05:09	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 103_PE-15

Lab Sample ID: 460-246010-7

Date Collected: 10/27/21 13:35

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	1300		380	12	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
Benzo[a]anthracene	6100		38	13	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
Chrysene	5500		380	6.4	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
Benzo[b]fluoranthene	7800		38	9.8	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
Benzo[k]fluoranthene	2800		38	7.4	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
Benzo[a]pyrene	5700		38	10	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
Indeno[1,2,3-cd]pyrene	3300		38	15	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
Dibenz(a,h)anthracene	840		38	16	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
Benzo[g,h,i]perylene	2600		380	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	10/29/21 10:03	10/30/21 05:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	50		11 - 104	10/29/21 10:03	10/30/21 05:09	1
Phenol-d5 (Surr)	57		15 - 100	10/29/21 10:03	10/30/21 05:09	1
Terphenyl-d14 (Surr)	61		12 - 126	10/29/21 10:03	10/30/21 05:09	1
2,4,6-Tribromophenol (Surr)	55		10 - 123	10/29/21 10:03	10/30/21 05:09	1
2-Fluorophenol (Surr)	52		10 - 105	10/29/21 10:03	10/30/21 05:09	1
2-Fluorobiphenyl	56		14 - 103	10/29/21 10:03	10/30/21 05:09	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	12000		760	27	ug/Kg	✱	10/29/21 10:03	10/30/21 22:53	2
Pyrene	11000		760	19	ug/Kg	✱	10/29/21 10:03	10/30/21 22:53	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	49		11 - 104	10/29/21 10:03	10/30/21 22:53	2
Phenol-d5 (Surr)	54		15 - 100	10/29/21 10:03	10/30/21 22:53	2
Terphenyl-d14 (Surr)	62		12 - 126	10/29/21 10:03	10/30/21 22:53	2
2,4,6-Tribromophenol (Surr)	58		10 - 123	10/29/21 10:03	10/30/21 22:53	2
2-Fluorophenol (Surr)	51		10 - 105	10/29/21 10:03	10/30/21 22:53	2
2-Fluorobiphenyl	54		14 - 103	10/29/21 10:03	10/30/21 22:53	2

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	48		7.7	1.3	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
4,4'-DDE	120		7.7	0.91	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
4,4'-DDT	260		7.7	1.4	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
alpha-BHC	2.3	U	2.3	0.78	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
beta-BHC	2.3	U	2.3	0.86	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Chlordane (technical)	77	U	77	19	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Endosulfan II	7.7	U *	7.7	2.0	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Endosulfan sulfate	7.7	U	7.7	0.96	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Endrin	7.7	U	7.7	1.1	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1
gamma-BHC (Lindane)	2.3	U	2.3	0.71	ug/Kg	✱	10/31/21 08:58	11/01/21 14:56	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 103_PE-15

Lab Sample ID: 460-246010-7

Date Collected: 10/27/21 13:35

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	7.7	U	7.7	0.91	ug/Kg	☆	10/31/21 08:58	11/01/21 14:56	1
Heptachlor epoxide	7.7	U	7.7	1.1	ug/Kg	☆	10/31/21 08:58	11/01/21 14:56	1
Methoxychlor	7.7	U	7.7	1.8	ug/Kg	☆	10/31/21 08:58	11/01/21 14:56	1
Toxaphene	77	U	77	28	ug/Kg	☆	10/31/21 08:58	11/01/21 14:56	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	☆	10/31/21 08:58	11/01/21 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		10 - 150	10/31/21 08:58	11/01/21 14:56	1
DCB Decachlorobiphenyl	156	*	10 - 150	10/31/21 08:58	11/01/21 14:56	1
Tetrachloro-m-xylene	89		10 - 133	10/31/21 08:58	11/01/21 14:56	1
Tetrachloro-m-xylene	92		10 - 133	10/31/21 08:58	11/01/21 14:56	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Aroclor 1221	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Aroclor 1232	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Aroclor 1242	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Aroclor 1248	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Aroclor 1254	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Aroclor 1260	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Aroclor-1262	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Aroclor 1268	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1
Polychlorinated biphenyls, Total	77	U	77	20	ug/Kg	☆	10/31/21 08:47	11/02/21 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	119		37 - 150	10/31/21 08:47	11/02/21 17:00	1
DCB Decachlorobiphenyl	148		37 - 150	10/31/21 08:47	11/02/21 17:00	1
Tetrachloro-m-xylene	99		54 - 150	10/31/21 08:47	11/02/21 17:00	1
Tetrachloro-m-xylene	114		54 - 150	10/31/21 08:47	11/02/21 17:00	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	☆	11/02/21 21:40	11/03/21 12:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	73		65 - 150	11/02/21 21:40	11/03/21 12:51	1
2,4-Dichlorophenylacetic acid	111		65 - 150	11/02/21 21:40	11/03/21 12:51	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.63	U	0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluoroheptanoic acid	0.63	U	0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluorooctanoic acid	0.63	U	0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluorononanoic acid	0.63	U	0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluorodecanoic acid	0.63	U	0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluorotridecanoic acid	0.63	U	0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluorotetradecanoic acid	0.63	U	0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluorobutanesulfonic acid	2.09	U	2.09	0.42	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluorohexanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1
Perfluorooctanesulfonic acid	0.96		0.63	0.21	ug/Kg	☆	11/04/21 09:15	11/06/21 01:49	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 103_PE-15

Lab Sample ID: 460-246010-7

Date Collected: 10/27/21 13:35

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.09	U	2.09	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
NMeFOSAA	2.09	U	2.09	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
Perfluoroheptanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
Perfluorodecanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
Perfluorooctanesulfonamide	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
Perfluorobutanoic acid	2.09	U	2.09	0.83	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
Perfluoroundecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
Perfluorododecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
6:2 Fluorotelomer sulfonic acid	2.09	U	2.09	0.63	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
8:2 Fluorotelomer sulfonic acid	3.13	U	3.13	0.63	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
Perfluoropentanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/04/21 09:15	11/06/21 01:49	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	161		10 - 178				11/04/21 09:15	11/06/21 01:49	1
M2-6:2 FTS	110		10 - 182				11/04/21 09:15	11/06/21 01:49	1
13C5 PFHxA	89		11 - 138				11/04/21 09:15	11/06/21 01:49	1
13C4 PFHpA	90		15 - 139				11/04/21 09:15	11/06/21 01:49	1
13C8 PFOA	91		21 - 133				11/04/21 09:15	11/06/21 01:49	1
13C9 PFNA	92		15 - 145				11/04/21 09:15	11/06/21 01:49	1
13C6 PFDA	92		21 - 134				11/04/21 09:15	11/06/21 01:49	1
13C7 PFUnA	94		15 - 138				11/04/21 09:15	11/06/21 01:49	1
13C2-PFDoDA	89		28 - 126				11/04/21 09:15	11/06/21 01:49	1
13C2 PFTeDA	88		10 - 138				11/04/21 09:15	11/06/21 01:49	1
13C3 PFBS	100		23 - 130				11/04/21 09:15	11/06/21 01:49	1
13C3 PFHxS	100		24 - 136				11/04/21 09:15	11/06/21 01:49	1
13C8 PFOS	93		31 - 130				11/04/21 09:15	11/06/21 01:49	1
d3-NMeFOSAA	100		10 - 172				11/04/21 09:15	11/06/21 01:49	1
d5-NEtFOSAA	122		10 - 176				11/04/21 09:15	11/06/21 01:49	1
13C8 FOSA	91		25 - 135				11/04/21 09:15	11/06/21 01:49	1
13C4 PFBA	92		12 - 137				11/04/21 09:15	11/06/21 01:49	1
13C5 PFPeA	101		12 - 135				11/04/21 09:15	11/06/21 01:49	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.44	J	1.1	0.096	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Arsenic	6.6		1.1	0.11	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Barium	167		2.2	0.16	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Beryllium	0.40	J	0.43	0.062	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Cadmium	1.3		1.1	0.12	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Chromium	19.3		2.2	0.29	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Copper	99.9		2.2	0.40	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Manganese	348		4.3	0.44	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Nickel	19.6		2.2	0.51	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Lead	544		0.65	0.22	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Selenium	0.33	J	1.4	0.14	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1
Zinc	527		8.7	3.3	mg/Kg	✱	11/03/21 03:39	11/04/21 17:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.2		0.057	0.027	mg/Kg	✱	11/03/21 03:56	11/03/21 10:29	3

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 103_PE-15

Date Collected: 10/27/21 13:35

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-7

Matrix: Solid

Percent Solids: 87.1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	19.3		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	☆	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.28	U	0.28	0.15	mg/Kg	☆	11/02/21 18:11	11/03/21 21:11	1
Percent Moisture	12.9		1.0	1.0	%			11/01/21 00:24	1
Percent Solids	87.1		1.0	1.0	%			11/01/21 00:24	1

Client Sample ID: 104_PE-9

Date Collected: 10/27/21 13:50

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-8

Matrix: Solid

Percent Solids: 80.3

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.90	U	0.90	0.21	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,1-Dichloroethane	0.90	U	0.90	0.19	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,1-Dichloroethene	0.90	U	0.90	0.20	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,2,4-Trimethylbenzene	0.90	U	0.90	0.22	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,2-Dichlorobenzene	0.90	U	0.90	0.33	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,2-Dichloroethane	0.90	U	0.90	0.27	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,3,5-Trimethylbenzene	0.90	U	0.90	0.28	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,3-Dichlorobenzene	0.90	U	0.90	0.33	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,4-Dichlorobenzene	0.90	U	0.90	0.20	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
1,4-Dioxane	18	U	18	8.3	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
2-Butanone (MEK)	4.5	U	4.5	0.33	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Acetone	5.4	U	5.4	5.2	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Benzene	0.90	U	0.90	0.23	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Carbon tetrachloride	0.90	U	0.90	0.35	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Chlorobenzene	0.90	U	0.90	0.16	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Chloroform	0.90	U	0.90	0.88	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
cis-1,2-Dichloroethene	0.90	U	0.90	0.32	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Ethylbenzene	0.90	U	0.90	0.18	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Methyl tert-butyl ether	0.90	U	0.90	0.46	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
n-Butylbenzene	0.90	U	0.90	0.27	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
N-Propylbenzene	0.90	U	0.90	0.16	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
sec-Butylbenzene	0.90	U	0.90	0.26	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
tert-Butylbenzene	0.90	U	0.90	0.25	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Tetrachloroethene	0.90	U	0.90	0.28	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Toluene	0.90	U	0.90	0.21	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
trans-1,2-Dichloroethene	0.90	U	0.90	0.22	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Trichloroethene	0.90	U	0.90	0.29	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Vinyl chloride	0.90	U	0.90	0.49	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1
Xylenes, Total	1.8	U	1.8	0.58	ug/Kg	☆	10/29/21 14:58	11/03/21 13:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 145	10/29/21 14:58	11/03/21 13:28	1
4-Bromofluorobenzene	94		70 - 139	10/29/21 14:58	11/03/21 13:28	1
Dibromofluoromethane (Surr)	104		48 - 150	10/29/21 14:58	11/03/21 13:28	1
Toluene-d8 (Surr)	87		80 - 120	10/29/21 14:58	11/03/21 13:28	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 104_PE-9

Lab Sample ID: 460-246010-8

Date Collected: 10/27/21 13:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 80.3

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	410	U	410	15	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
2-Methylphenol	410	U	410	15	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
3 & 4 Methylphenol	410	U	410	26	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Pentachlorophenol	330	U	330	84	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Naphthalene	410	U	410	7.1	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Acenaphthylene	410	U	410	4.1	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Acenaphthene	410	U	410	12	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Dibenzofuran	410	U	410	5.8	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Fluorene	410	U	410	5.6	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Hexachlorobenzene	41	U	41	20	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Phenanthrene	16	J	410	7.2	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Anthracene	410	U	410	13	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Fluoranthene	20	J	410	14	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Pyrene	18	J	410	10	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Benzo[a]anthracene	19	J	41	14	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Chrysene	11	J	410	7.0	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Benzo[b]fluoranthene	16	J	41	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Benzo[k]fluoranthene	41	U	41	8.1	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Benzo[a]pyrene	41	U	41	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Indeno[1,2,3-cd]pyrene	41	U	41	16	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Dibenz(a,h)anthracene	41	U	41	18	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
Benzo[g,h,i]perylene	410	U	410	12	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1
1,4-Dioxane	41	U	41	36	ug/Kg	✱	10/29/21 10:03	10/30/21 05:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	50		11 - 104	10/29/21 10:03	10/30/21 05:51	1
Phenol-d5 (Surr)	50		15 - 100	10/29/21 10:03	10/30/21 05:51	1
Terphenyl-d14 (Surr)	59		12 - 126	10/29/21 10:03	10/30/21 05:51	1
2,4,6-Tribromophenol (Surr)	46		10 - 123	10/29/21 10:03	10/30/21 05:51	1
2-Fluorophenol (Surr)	50		10 - 105	10/29/21 10:03	10/30/21 05:51	1
2-Fluorobiphenyl	47		14 - 103	10/29/21 10:03	10/30/21 05:51	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.3	U	8.3	1.4	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
4,4'-DDE	8.3	U	8.3	0.98	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
4,4'-DDT	2.4	J	8.3	1.5	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Aldrin	8.3	U	8.3	1.3	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
alpha-BHC	2.5	U	2.5	0.85	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
beta-BHC	2.5	U	2.5	0.93	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Chlordane (technical)	83	U	83	20	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
delta-BHC	2.5	U	2.5	0.51	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Dieldrin	2.5	U	2.5	1.1	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Endosulfan I	8.3	U	8.3	1.3	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Endosulfan II	8.3	U *	8.3	2.1	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Endosulfan sulfate	8.3	U	8.3	1.0	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Endrin	8.3	U	8.3	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Endrin aldehyde	8.3	U	8.3	2.0	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Endrin ketone	8.3	U	8.3	1.6	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
gamma-BHC (Lindane)	2.5	U	2.5	0.77	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 104_PE-9

Lab Sample ID: 460-246010-8

Date Collected: 10/27/21 13:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 80.3

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	8.3	U	8.3	0.98	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Heptachlor epoxide	8.3	U	8.3	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Methoxychlor	8.3	U	8.3	1.9	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
Toxaphene	83	U	83	30	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1
cis-Chlordane	8.3	U	8.3	1.3	ug/Kg	✱	10/31/21 08:58	11/02/21 09:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	110		10 - 150	10/31/21 08:58	11/02/21 09:19	1
DCB Decachlorobiphenyl	129		10 - 150	10/31/21 08:58	11/02/21 09:19	1
Tetrachloro-m-xylene	74		10 - 133	10/31/21 08:58	11/02/21 09:19	1
Tetrachloro-m-xylene	77		10 - 133	10/31/21 08:58	11/02/21 09:19	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Aroclor 1221	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Aroclor 1232	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Aroclor 1242	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Aroclor 1248	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Aroclor 1254	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Aroclor 1260	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Aroclor-1262	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Aroclor 1268	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1
Polychlorinated biphenyls, Total	83	U	83	22	ug/Kg	✱	10/31/21 08:47	11/02/21 16:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	154	*	37 - 150	10/31/21 08:47	11/02/21 16:38	1
DCB Decachlorobiphenyl	168	*	37 - 150	10/31/21 08:47	11/02/21 16:38	1
Tetrachloro-m-xylene	115		54 - 150	10/31/21 08:47	11/02/21 16:38	1
Tetrachloro-m-xylene	123		54 - 150	10/31/21 08:47	11/02/21 16:38	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	41	U	41	4.3	ug/Kg	✱	11/02/21 21:40	11/03/21 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	75		65 - 150	11/02/21 21:40	11/03/21 13:04	1
2,4-Dichlorophenylacetic acid	127		65 - 150	11/02/21 21:40	11/03/21 13:04	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluoroheptanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorooctanoic acid	0.32	J	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorononanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorodecanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorotridecanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorotetradecanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorobutanesulfonic acid	2.47	U	2.47	0.49	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorohexanesulfonic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorooctanesulfonic acid	1.64		0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 104_PE-9

Lab Sample ID: 460-246010-8

Date Collected: 10/27/21 13:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 80.3

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.47	U	2.47	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
NMeFOSAA	2.47	U	2.47	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluoroheptanesulfonic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorodecanesulfonic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorooctanesulfonamide	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorobutanoic acid	2.47	U	2.47	0.99	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluoroundecanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluorododecanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
6:2 Fluorotelomer sulfonic acid	2.47	U	2.47	0.74	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
8:2 Fluorotelomer sulfonic acid	3.70	U	3.70	0.74	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1
Perfluoropentanoic acid	0.74	U	0.74	0.25	ug/Kg	✱	11/04/21 09:15	11/06/21 02:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	112		10 - 178	11/04/21 09:15	11/06/21 02:00	1
M2-6:2 FTS	85		10 - 182	11/04/21 09:15	11/06/21 02:00	1
13C5 PFHxA	85		11 - 138	11/04/21 09:15	11/06/21 02:00	1
13C4 PFHpA	89		15 - 139	11/04/21 09:15	11/06/21 02:00	1
13C8 PFOA	83		21 - 133	11/04/21 09:15	11/06/21 02:00	1
13C9 PFNA	84		15 - 145	11/04/21 09:15	11/06/21 02:00	1
13C6 PFDA	87		21 - 134	11/04/21 09:15	11/06/21 02:00	1
13C7 PFUnA	86		15 - 138	11/04/21 09:15	11/06/21 02:00	1
13C2-PFDoDA	88		28 - 126	11/04/21 09:15	11/06/21 02:00	1
13C2 PFTeDA	83		10 - 138	11/04/21 09:15	11/06/21 02:00	1
13C3 PFBS	94		23 - 130	11/04/21 09:15	11/06/21 02:00	1
13C3 PFHxS	94		24 - 136	11/04/21 09:15	11/06/21 02:00	1
13C8 PFOS	86		31 - 130	11/04/21 09:15	11/06/21 02:00	1
d3-NMeFOSAA	79		10 - 172	11/04/21 09:15	11/06/21 02:00	1
d5-NEtFOSAA	97		10 - 176	11/04/21 09:15	11/06/21 02:00	1
13C8 FOSA	87		25 - 135	11/04/21 09:15	11/06/21 02:00	1
13C4 PFBA	84		12 - 137	11/04/21 09:15	11/06/21 02:00	1
13C5 PFPeA	93		12 - 135	11/04/21 09:15	11/06/21 02:00	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.11	J	1.2	0.10	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Arsenic	4.9		1.2	0.12	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Barium	70.3		2.3	0.17	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Beryllium	0.57		0.47	0.066	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Cadmium	0.18	J	1.2	0.13	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Chromium	19.3		2.3	0.31	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Copper	21.4		2.3	0.43	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Manganese	1110		4.7	0.47	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Nickel	14.7		2.3	0.55	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Lead	142		0.70	0.23	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Selenium	0.36	J	1.5	0.15	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1
Zinc	112		9.3	3.6	mg/Kg	✱	11/03/21 03:39	11/04/21 17:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.39		0.020	0.0093	mg/Kg	✱	11/03/21 03:56	11/03/21 10:31	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 104_PE-9

Date Collected: 10/27/21 13:50

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-8

Matrix: Solid

Percent Solids: 80.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	19.3		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.5	U	2.5	1.1	mg/Kg	☆	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	☆	11/02/21 18:11	11/03/21 21:12	1
Percent Moisture	19.7		1.0	1.0	%			11/01/21 00:24	1
Percent Solids	80.3		1.0	1.0	%			11/01/21 00:24	1

Client Sample ID: 105_PE-16

Date Collected: 10/27/21 14:05

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-9

Matrix: Solid

Percent Solids: 82.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.2	U	1.2	0.27	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,1-Dichloroethane	1.2	U	1.2	0.24	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,1-Dichloroethene	1.2	U	1.2	0.26	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,2,4-Trimethylbenzene	1.2	U	1.2	0.28	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,2-Dichlorobenzene	1.2	U	1.2	0.42	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,2-Dichloroethane	1.2	U	1.2	0.34	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,3,5-Trimethylbenzene	1.2	U	1.2	0.36	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,3-Dichlorobenzene	1.2	U	1.2	0.42	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,4-Dichlorobenzene	1.2	U	1.2	0.26	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
1,4-Dioxane	23	U	23	11	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
2-Butanone (MEK)	5.8	U	5.8	0.42	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Acetone	6.9	U	6.9	6.6	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Benzene	1.2	U	1.2	0.30	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Carbon tetrachloride	1.2	U	1.2	0.45	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Chlorobenzene	1.2	U	1.2	0.20	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Chloroform	1.2	U	1.2	1.1	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
cis-1,2-Dichloroethene	1.2	U	1.2	0.41	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Ethylbenzene	1.2	U	1.2	0.23	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Methyl tert-butyl ether	1.2	U	1.2	0.59	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Methylene Chloride	2.3	U	2.3	1.3	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
n-Butylbenzene	1.2	U	1.2	0.34	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
N-Propylbenzene	1.2	U	1.2	0.20	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
sec-Butylbenzene	1.2	U	1.2	0.33	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
tert-Butylbenzene	1.2	U	1.2	0.32	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Tetrachloroethene	1.2	U	1.2	0.35	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Toluene	1.2	U	1.2	0.27	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
trans-1,2-Dichloroethene	1.2	U	1.2	0.28	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Trichloroethene	1.2	U	1.2	0.37	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Vinyl chloride	1.2	U	1.2	0.63	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1
Xylenes, Total	2.3	U	2.3	0.74	ug/Kg	☆	10/29/21 14:58	11/02/21 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 145	10/29/21 14:58	11/02/21 23:55	1
4-Bromofluorobenzene	101		70 - 139	10/29/21 14:58	11/02/21 23:55	1
Dibromofluoromethane (Surr)	104		48 - 150	10/29/21 14:58	11/02/21 23:55	1
Toluene-d8 (Surr)	89		80 - 120	10/29/21 14:58	11/02/21 23:55	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 105_PE-16

Lab Sample ID: 460-246010-9

Date Collected: 10/27/21 14:05

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 82.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	320	J	400	15	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
2-Methylphenol	280	J	400	15	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
3 & 4 Methylphenol	560		400	25	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Pentachlorophenol	320	U	320	82	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Naphthalene	5000		400	6.9	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Acenaphthylene	440		400	4.0	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Acenaphthene	4100		400	11	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Dibenzofuran	4100		400	5.6	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Fluorene	6600		400	5.4	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Benzo[k]fluoranthene	4700		40	7.9	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Indeno[1,2,3-cd]pyrene	5500		40	16	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Dibenz(a,h)anthracene	1600		40	17	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
Benzo[g,h,i]perylene	4100		400	12	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	10/29/21 10:03	10/30/21 05:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	54		11 - 104	10/29/21 10:03	10/30/21 05:32	1
Phenol-d5 (Surr)	58		15 - 100	10/29/21 10:03	10/30/21 05:32	1
Terphenyl-d14 (Surr)	55		12 - 126	10/29/21 10:03	10/30/21 05:32	1
2,4,6-Tribromophenol (Surr)	47		10 - 123	10/29/21 10:03	10/30/21 05:32	1
2-Fluorophenol (Surr)	59		10 - 105	10/29/21 10:03	10/30/21 05:32	1
2-Fluorobiphenyl	53		14 - 103	10/29/21 10:03	10/30/21 05:32	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	38000		2000	35	ug/Kg	✱	10/29/21 10:03	10/30/21 23:10	5
Anthracene	17000		2000	61	ug/Kg	✱	10/29/21 10:03	10/30/21 23:10	5
Fluoranthene	31000		2000	70	ug/Kg	✱	10/29/21 10:03	10/30/21 23:10	5
Pyrene	25000		2000	50	ug/Kg	✱	10/29/21 10:03	10/30/21 23:10	5
Benzo[a]anthracene	13000		200	70	ug/Kg	✱	10/29/21 10:03	10/30/21 23:10	5
Chrysene	12000		2000	34	ug/Kg	✱	10/29/21 10:03	10/30/21 23:10	5
Benzo[b]fluoranthene	15000		200	52	ug/Kg	✱	10/29/21 10:03	10/30/21 23:10	5
Benzo[a]pyrene	11000		200	53	ug/Kg	✱	10/29/21 10:03	10/30/21 23:10	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		11 - 104	10/29/21 10:03	10/30/21 23:10	5
Phenol-d5 (Surr)	50		15 - 100	10/29/21 10:03	10/30/21 23:10	5
Terphenyl-d14 (Surr)	50		12 - 126	10/29/21 10:03	10/30/21 23:10	5
2,4,6-Tribromophenol (Surr)	48		10 - 123	10/29/21 10:03	10/30/21 23:10	5
2-Fluorophenol (Surr)	52		10 - 105	10/29/21 10:03	10/30/21 23:10	5
2-Fluorobiphenyl	48		14 - 103	10/29/21 10:03	10/30/21 23:10	5

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	110		8.1	1.4	ug/Kg	✱	10/31/21 08:58	11/02/21 09:35	1
4,4'-DDE	39		8.1	0.96	ug/Kg	✱	10/31/21 08:58	11/02/21 09:35	1
4,4'-DDT	66		8.1	1.5	ug/Kg	✱	10/31/21 08:58	11/02/21 09:35	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 09:35	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	10/31/21 08:58	11/02/21 09:35	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 105_PE-16

Lab Sample ID: 460-246010-9

Date Collected: 10/27/21 14:05

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 82.6

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	2.4	U	2.4	0.91	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Chlordane (technical)	81	U	81	20	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Endosulfan II	8.1	U *	8.1	2.1	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Endrin	8.1	U	8.1	1.2	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Heptachlor	8.1	U	8.1	0.96	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Methoxychlor	8.1	U	8.1	1.9	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
Toxaphene	81	U	81	29	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	☆	10/31/21 08:58	11/02/21 09:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	142		10 - 150	10/31/21 08:58	11/02/21 09:35	1
DCB Decachlorobiphenyl	151	*	10 - 150	10/31/21 08:58	11/02/21 09:35	1
Tetrachloro-m-xylene	80		10 - 133	10/31/21 08:58	11/02/21 09:35	1
Tetrachloro-m-xylene	84		10 - 133	10/31/21 08:58	11/02/21 09:35	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Aroclor 1221	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Aroclor 1232	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Aroclor 1242	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Aroclor 1248	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Aroclor 1254	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Aroclor 1260	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Aroclor-1262	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Aroclor 1268	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1
Polychlorinated biphenyls, Total	81	U	81	22	ug/Kg	☆	10/31/21 08:47	11/02/21 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	129		37 - 150	10/31/21 08:47	11/02/21 16:16	1
DCB Decachlorobiphenyl	138		37 - 150	10/31/21 08:47	11/02/21 16:16	1
Tetrachloro-m-xylene	100		54 - 150	10/31/21 08:47	11/02/21 16:16	1
Tetrachloro-m-xylene	106		54 - 150	10/31/21 08:47	11/02/21 16:16	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	☆	11/02/21 21:40	11/03/21 13:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	70		65 - 150	11/02/21 21:40	11/03/21 13:18	1
2,4-Dichlorophenylacetic acid	144		65 - 150	11/02/21 21:40	11/03/21 13:18	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 105_PE-16

Lab Sample ID: 460-246010-9

Date Collected: 10/27/21 14:05

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 82.6

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluoroheptanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorooctanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorononanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorodecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorotridecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorotetradecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorobutanesulfonic acid	2.20	U	2.20	0.44	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorohexanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorooctanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
NEtFOSAA	2.20	U	2.20	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
NMeFOSAA	2.20	U	2.20	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluoroheptanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorodecanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorooctanesulfonamide	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorobutanoic acid	2.20	U	2.20	0.88	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluoroundecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluorododecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
6:2 Fluorotelomer sulfonic acid	2.20	U	2.20	0.66	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
8:2 Fluorotelomer sulfonic acid	3.30	U	3.30	0.66	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1
Perfluoropentanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	11/04/21 09:15	11/06/21 02:11	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	117		10 - 178	11/04/21 09:15	11/06/21 02:11	1
M2-6:2 FTS	99		10 - 182	11/04/21 09:15	11/06/21 02:11	1
13C5 PFHxA	86		11 - 138	11/04/21 09:15	11/06/21 02:11	1
13C4 PFHpA	87		15 - 139	11/04/21 09:15	11/06/21 02:11	1
13C8 PFOA	85		21 - 133	11/04/21 09:15	11/06/21 02:11	1
13C9 PFNA	86		15 - 145	11/04/21 09:15	11/06/21 02:11	1
13C6 PFDA	93		21 - 134	11/04/21 09:15	11/06/21 02:11	1
13C7 PFUnA	88		15 - 138	11/04/21 09:15	11/06/21 02:11	1
13C2-PFDoDA	90		28 - 126	11/04/21 09:15	11/06/21 02:11	1
13C2 PFTeDA	87		10 - 138	11/04/21 09:15	11/06/21 02:11	1
13C3 PFBS	98		23 - 130	11/04/21 09:15	11/06/21 02:11	1
13C3 PFHxS	94		24 - 136	11/04/21 09:15	11/06/21 02:11	1
13C8 PFOS	90		31 - 130	11/04/21 09:15	11/06/21 02:11	1
d3-NMeFOSAA	89		10 - 172	11/04/21 09:15	11/06/21 02:11	1
d5-NEtFOSAA	109		10 - 176	11/04/21 09:15	11/06/21 02:11	1
13C8 FOSA	87		25 - 135	11/04/21 09:15	11/06/21 02:11	1
13C4 PFBA	88		12 - 137	11/04/21 09:15	11/06/21 02:11	1
13C5 PFPeA	94		12 - 135	11/04/21 09:15	11/06/21 02:11	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.22	J	1.1	0.099	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Arsenic	6.3		1.1	0.11	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Barium	70.5		2.2	0.16	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Beryllium	0.42	J	0.44	0.063	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Chromium	20.9		2.2	0.30	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 105_PE-16

Lab Sample ID: 460-246010-9

Date Collected: 10/27/21 14:05

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 82.6

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	40.1		2.2	0.41	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Manganese	122		4.4	0.45	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Nickel	16.7		2.2	0.52	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Lead	171		0.67	0.22	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Selenium	2.1		1.4	0.14	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1
Zinc	76.5		8.9	3.4	mg/Kg	☆	11/03/21 03:39	11/04/21 17:12	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.83		0.021	0.0097	mg/Kg	☆	11/03/21 03:56	11/03/21 09:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	20.9		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	☆	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.25	J	0.27	0.15	mg/Kg	☆	11/02/21 18:11	11/03/21 21:13	1
Percent Moisture	17.4		1.0	1.0	%			11/01/21 00:24	1
Percent Solids	82.6		1.0	1.0	%			11/01/21 00:24	1

Client Sample ID: 106_PE-18

Lab Sample ID: 460-246010-10

Date Collected: 10/27/21 14:15

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.26	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,2-Dichlorobenzene	1.0	U	1.0	0.38	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,2-Dichloroethane	1.0	U	1.0	0.31	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,3-Dichlorobenzene	1.0	U	1.0	0.38	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
1,4-Dioxane	21	U	21	9.6	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
2-Butanone (MEK)	5.2	U	5.2	0.38	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Acetone	6.3	U	6.3	6.0	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Benzene	1.0	U	1.0	0.27	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Carbon tetrachloride	1.0	U	1.0	0.40	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Chloroform	1.0	U	1.0	1.0	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.37	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Ethylbenzene	1.0	U	1.0	0.21	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.53	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Methylene Chloride	2.1	U	2.1	1.2	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
n-Butylbenzene	1.0	U	1.0	0.31	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
sec-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
tert-Butylbenzene	1.0	U	1.0	0.29	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1
Tetrachloroethene	1.0	U	1.0	0.32	ug/Kg	☆	10/29/21 14:59	11/03/21 13:50	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 106_PE-18

Lab Sample ID: 460-246010-10

Date Collected: 10/27/21 14:15

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.5

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.0	U	1.0	0.24	ug/Kg	✱	10/29/21 14:59	11/03/21 13:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/Kg	✱	10/29/21 14:59	11/03/21 13:50	1
Trichloroethene	1.0	U	1.0	0.33	ug/Kg	✱	10/29/21 14:59	11/03/21 13:50	1
Vinyl chloride	1.0	U	1.0	0.57	ug/Kg	✱	10/29/21 14:59	11/03/21 13:50	1
Xylenes, Total	2.1	U	2.1	0.67	ug/Kg	✱	10/29/21 14:59	11/03/21 13:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 145	10/29/21 14:59	11/03/21 13:50	1
4-Bromofluorobenzene	104		70 - 139	10/29/21 14:59	11/03/21 13:50	1
Dibromofluoromethane (Surr)	111		48 - 150	10/29/21 14:59	11/03/21 13:50	1
Toluene-d8 (Surr)	93		80 - 120	10/29/21 14:59	11/03/21 13:50	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
2-Methylphenol	380	U	380	14	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Pentachlorophenol	310	U	310	78	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Naphthalene	380	U	380	6.6	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Acenaphthylene	380	U	380	3.8	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Acenaphthene	380	U	380	11	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Dibenzofuran	380	U	380	5.4	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Fluorene	380	U	380	5.2	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Hexachlorobenzene	38	U	38	18	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Phenanthrene	22	J	380	6.7	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Anthracene	380	U	380	12	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Fluoranthene	48	J	380	13	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Pyrene	47	J	380	9.5	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[a]anthracene	35	J	38	13	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Chrysene	28	J	380	6.5	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[b]fluoranthene	38		38	9.9	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[k]fluoranthene	21	J	38	7.5	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[a]pyrene	26	J	38	10	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Indeno[1,2,3-cd]pyrene	38	U	38	15	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Dibenz(a,h)anthracene	38	U	38	17	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
Benzo[g,h,i]perylene	16	J	380	11	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	10/29/21 10:03	10/30/21 06:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	46		11 - 104	10/29/21 10:03	10/30/21 06:08	1
Phenol-d5 (Surr)	51		15 - 100	10/29/21 10:03	10/30/21 06:08	1
Terphenyl-d14 (Surr)	59		12 - 126	10/29/21 10:03	10/30/21 06:08	1
2,4,6-Tribromophenol (Surr)	55		10 - 123	10/29/21 10:03	10/30/21 06:08	1
2-Fluorophenol (Surr)	50		10 - 105	10/29/21 10:03	10/30/21 06:08	1
2-Fluorobiphenyl	45		14 - 103	10/29/21 10:03	10/30/21 06:08	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.7	U	7.7	1.3	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
4,4'-DDE	7.7	U	7.7	0.91	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 106_PE-18

Lab Sample ID: 460-246010-10

Date Collected: 10/27/21 14:15

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.5

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	2.3	J	7.7	1.4	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Chlordane (technical)	77	U	77	19	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Endosulfan II	7.7	U *	7.7	2.0	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Endosulfan sulfate	7.7	U	7.7	0.97	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Endrin	7.7	U	7.7	1.1	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Heptachlor	7.7	U	7.7	0.91	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Heptachlor epoxide	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Methoxychlor	7.7	U	7.7	1.8	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
Toxaphene	77	U	77	28	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 09:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	116		10 - 150	10/31/21 08:58	11/02/21 09:50	1
DCB Decachlorobiphenyl	122		10 - 150	10/31/21 08:58	11/02/21 09:50	1
Tetrachloro-m-xylene	70		10 - 133	10/31/21 08:58	11/02/21 09:50	1
Tetrachloro-m-xylene	74		10 - 133	10/31/21 08:58	11/02/21 09:50	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Aroclor 1221	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Aroclor 1232	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Aroclor 1242	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Aroclor 1248	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Aroclor 1254	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Aroclor 1260	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Aroclor-1262	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Aroclor 1268	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1
Polychlorinated biphenyls, Total	77	U	77	21	ug/Kg	✱	10/31/21 08:47	11/02/21 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	144		37 - 150	10/31/21 08:47	11/02/21 15:54	1
DCB Decachlorobiphenyl	154	*	37 - 150	10/31/21 08:47	11/02/21 15:54	1
Tetrachloro-m-xylene	101		54 - 150	10/31/21 08:47	11/02/21 15:54	1
Tetrachloro-m-xylene	107		54 - 150	10/31/21 08:47	11/02/21 15:54	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	✱	11/02/21 21:40	11/03/21 13:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	115		65 - 150	11/02/21 21:40	11/03/21 13:31	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 106_PE-18

Lab Sample ID: 460-246010-10

Date Collected: 10/27/21 14:15

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.5

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	102		65 - 150	11/02/21 21:40	11/03/21 13:31	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluoroheptanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorooctanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorononanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorodecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorotridecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorotetradecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorobutanesulfonic acid	2.29	U	2.29	0.46	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorohexanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorooctanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
NEtFOSAA	2.29	U	2.29	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
NMeFOSAA	2.29	U	2.29	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluoroheptanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorodecanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorooctanesulfonamide	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorobutanoic acid	2.29	U	2.29	0.92	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluoroundecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluorododecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
6:2 Fluorotelomer sulfonic acid	2.29	U	2.29	0.69	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
8:2 Fluorotelomer sulfonic acid	3.43	U	3.43	0.69	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1
Perfluoropentanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	11/04/21 09:15	11/06/21 02:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	90		10 - 178	11/04/21 09:15	11/06/21 02:22	1
M2-6:2 FTS	71		10 - 182	11/04/21 09:15	11/06/21 02:22	1
13C5 PFHxA	76		11 - 138	11/04/21 09:15	11/06/21 02:22	1
13C4 PFHpA	77		15 - 139	11/04/21 09:15	11/06/21 02:22	1
13C8 PFOA	76		21 - 133	11/04/21 09:15	11/06/21 02:22	1
13C9 PFNA	77		15 - 145	11/04/21 09:15	11/06/21 02:22	1
13C6 PFDA	81		21 - 134	11/04/21 09:15	11/06/21 02:22	1
13C7 PFUnA	80		15 - 138	11/04/21 09:15	11/06/21 02:22	1
13C2-PFDoDA	79		28 - 126	11/04/21 09:15	11/06/21 02:22	1
13C2 PFTeDA	81		10 - 138	11/04/21 09:15	11/06/21 02:22	1
13C3 PFBS	90		23 - 130	11/04/21 09:15	11/06/21 02:22	1
13C3 PFHxS	86		24 - 136	11/04/21 09:15	11/06/21 02:22	1
13C8 PFOS	79		31 - 130	11/04/21 09:15	11/06/21 02:22	1
d3-NMeFOSAA	68		10 - 172	11/04/21 09:15	11/06/21 02:22	1
d5-NEtFOSAA	87		10 - 176	11/04/21 09:15	11/06/21 02:22	1
13C8 FOSA	81		25 - 135	11/04/21 09:15	11/06/21 02:22	1
13C4 PFBA	77		12 - 137	11/04/21 09:15	11/06/21 02:22	1
13C5 PFPeA	82		12 - 135	11/04/21 09:15	11/06/21 02:22	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.67	J	1.1	0.096	mg/Kg	☆	11/03/21 04:04	11/04/21 17:14	1
Arsenic	2.5		1.1	0.11	mg/Kg	☆	11/03/21 04:04	11/04/21 17:14	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 106_PE-18

Lab Sample ID: 460-246010-10

Date Collected: 10/27/21 14:15

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.5

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	62.8		2.2	0.16	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Beryllium	0.40	J	0.43	0.062	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Chromium	12.6		2.2	0.29	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Copper	14.0		2.2	0.40	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Manganese	346		4.3	0.44	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Nickel	11.4		2.2	0.51	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Lead	89.4		0.65	0.22	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Selenium	1.4	U	1.4	0.14	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1
Zinc	46.9		8.6	3.3	mg/Kg	✱	11/03/21 04:04	11/04/21 17:14	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.41		0.019	0.0089	mg/Kg	✱	11/03/21 03:56	11/03/21 09:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.6		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	✱	10/31/21 08:54	11/01/21 14:15	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	11/02/21 18:11	11/03/21 21:14	1
Percent Moisture	13.5		1.0	1.0	%			11/02/21 01:21	1
Percent Solids	86.5		1.0	1.0	%			11/02/21 01:21	1

Client Sample ID: 107_TB-6

Lab Sample ID: 460-246010-11

Date Collected: 10/27/21 00:00

Matrix: Water

Date Received: 10/27/21 19:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			10/31/21 10:33	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			10/31/21 10:33	1
Acetone	5.0	U	5.0	4.4	ug/L			10/31/21 10:33	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			10/31/21 10:33	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			10/31/21 10:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			10/31/21 10:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			10/31/21 10:33	1
Chloroform	1.0	U	1.0	0.33	ug/L			10/31/21 10:33	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			10/31/21 10:33	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			10/31/21 10:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/31/21 10:33	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			10/31/21 10:33	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			10/31/21 10:33	1
Benzene	1.0	U	1.0	0.20	ug/L			10/31/21 10:33	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			10/31/21 10:33	1
Toluene	1.0	U	1.0	0.38	ug/L			10/31/21 10:33	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			10/31/21 10:33	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			10/31/21 10:33	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			10/31/21 10:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			10/31/21 10:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			10/31/21 10:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 107_TB-6

Lab Sample ID: 460-246010-11

Date Collected: 10/27/21 00:00

Matrix: Water

Date Received: 10/27/21 19:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			10/31/21 10:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			10/31/21 10:33	1
1,4-Dioxane	50	U	50	28	ug/L			10/31/21 10:33	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			10/31/21 10:33	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			10/31/21 10:33	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			10/31/21 10:33	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			10/31/21 10:33	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			10/31/21 10:33	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			10/31/21 10:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		75 - 123		10/31/21 10:33	1
Toluene-d8 (Surr)	100		80 - 120		10/31/21 10:33	1
4-Bromofluorobenzene	96		76 - 120		10/31/21 10:33	1
Dibromofluoromethane (Surr)	105		77 - 124		10/31/21 10:33	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-246010-1	097_PE-2	101	100	106	90
460-246010-2	098_PE-3	100	101	106	91
460-246010-3	099_PE-5	106	98	114	92
460-246010-4	100_PE-8	99	95	103	86
460-246010-5	101_PE-7	98	98	103	89
460-246010-6	102_PE-14	106	103	112	91
460-246010-7	103_PE-15	99	99	104	88
460-246010-8	104_PE-9	98	94	104	87
460-246010-9	105_PE-16	100	101	104	89
460-246010-10	106_PE-18	109	104	111	93
LCS 460-810773/3	Lab Control Sample	89	95	97	89
LCS 460-810922/3	Lab Control Sample	96	102	102	97
LCS 460-811047/5	Lab Control Sample	85	93	93	88
LCSD 460-810773/4	Lab Control Sample Dup	98	102	104	98
LCSD 460-810922/5	Lab Control Sample Dup	97	100	102	96
LCSD 460-811047/6	Lab Control Sample Dup	88	97	97	93
MB 460-810773/8	Method Blank	89	93	98	86
MB 460-810922/9	Method Blank	99	100	103	91
MB 460-811047/11	Method Blank	100	98	104	88

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-246010-11	107_TB-6	105	100	96	105
LCS 460-810451/3	Lab Control Sample	93	102	96	94
LCSD 460-810451/4	Lab Control Sample Dup	95	102	97	96
MB 460-810451/7	Method Blank	107	101	95	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-246010-1	097_PE-2	50	50	56	37	52	48
460-246010-2	098_PE-3	52	57	60	54	57	58

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-246010-3	099_PE-5	51	55	54	43	55	48
460-246010-4	100_PE-8	53	55	71	61	46	52
460-246010-5	101_PE-7	53	60	61	59	58	59
460-246010-6	102_PE-14	51	57	57	52	56	56
460-246010-7	103_PE-15	50	57	61	55	52	56
460-246010-7 - DL	103_PE-15	49	54	62	58	51	54
460-246010-8	104_PE-9	50	50	59	46	50	47
460-246010-9	105_PE-16	54	58	55	47	59	53
460-246010-9 - DL	105_PE-16	51	50	50	48	52	48
460-246010-10	106_PE-18	46	51	59	55	50	45
LCS 460-810127/2-A	Lab Control Sample	78	78	81	84	76	74
LCSD 460-810127/3-A	Lab Control Sample Dup	77	78	80	83	74	73
MB 460-810127/1-A	Method Blank	78	78	80	75	77	73

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-246010-1	097_PE-2	113	113	72	70
460-246010-1 MS	097_PE-2	114	128	80	83
460-246010-1 MSD	097_PE-2	133	117	93	90
460-246010-2	098_PE-3	168 *	101	74	78
460-246010-3	099_PE-5	123	108	71	73
460-246010-4	100_PE-8	128	121	83	81
460-246010-5	101_PE-7	128	113	87	87
460-246010-6	102_PE-14	151 *	95	71	68
460-246010-7	103_PE-15	156 *	104	92	89
460-246010-8	104_PE-9	129	110	77	74
460-246010-9	105_PE-16	151 *	142	84	80
460-246010-10	106_PE-18	122	116	74	70
LCS 460-810503/2-A	Lab Control Sample	104	107	91	91
LCSD 460-810503/3-A	Lab Control Sample Dup	107	95	91	92
MB 460-810503/1-A	Method Blank	122	108	93	90

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-246010-1	097_PE-2	137	129	91	92
460-246010-2	098_PE-3	155 *	144	91	101
460-246010-3	099_PE-5	138	129	84	85
460-246010-4	100_PE-8	140	133	102	102
460-246010-5	101_PE-7	134	124	115	93
460-246010-6	102_PE-14	135	118	98	91
460-246010-7	103_PE-15	148	119	114	99
460-246010-8	104_PE-9	168 *	154 *	123	115
460-246010-9	105_PE-16	138	129	106	100
460-246010-10	106_PE-18	154 *	144	107	101
LCS 460-810497/2-A	Lab Control Sample	113	105	99	99
LCSD 460-810497/3-A	Lab Control Sample Dup	110	103	97	98
MB 460-810497/1-A	Method Blank	118	112	95	96

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1 (65-150)	DCPAA2 (65-150)
460-246010-1	097_PE-2	127	137
460-246010-1 MS	097_PE-2	114	122
460-246010-1 MSD	097_PE-2	123	130
460-246010-2	098_PE-3	122	93
460-246010-3	099_PE-5	109	55 *
460-246010-4	100_PE-8	106	102
460-246010-5	101_PE-7	120	98
460-246010-6	102_PE-14	113	84
460-246010-7	103_PE-15	111	73
460-246010-8	104_PE-9	127	75
460-246010-9	105_PE-16	144	70
460-246010-10	106_PE-18	102	115
LCS 460-810973/2-A	Lab Control Sample	89	90
LCSD 460-810973/3-A	Lab Control Sample Dup	83	84
MB 460-810973/1-A	Method Blank	121	119

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-246010-1	097_PE-2	93	77	82	84	83	81	84	83
460-246010-2	098_PE-3	149	100	83	85	84	91	90	84
460-246010-3	099_PE-5	127	95	92	94	91	89	95	89
460-246010-4	100_PE-8	111	84	82	86	87	88	90	91
460-246010-5	101_PE-7	113	86	83	83	82	90	82	81
460-246010-6	102_PE-14	152	109	85	89	88	97	90	84
460-246010-7	103_PE-15	161	110	89	90	91	92	92	94
460-246010-8	104_PE-9	112	85	85	89	83	84	87	86
460-246010-9	105_PE-16	117	99	86	87	85	86	93	88
460-246010-10	106_PE-18	90	71	76	77	76	77	81	80
LCS 410-190726/2-B	Lab Control Sample	95	79	89	86	86	90	88	89
LCSD 410-190726/3-B	Lab Control Sample Dup	98	84	87	87	82	86	93	88
MB 410-190726/1-B	Method Blank	91	82	87	83	86	87	82	84

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-246010-1	097_PE-2	82	83	92	92	78	71	92	83
460-246010-2	098_PE-3	86	82	99	93	92	82	95	86
460-246010-3	099_PE-5	90	89	102	99	94	67	87	96
460-246010-4	100_PE-8	88	87	99	94	90	65	94	93
460-246010-5	101_PE-7	82	79	92	89	87	76	97	82
460-246010-6	102_PE-14	88	82	102	95	91	98	110	90
460-246010-7	103_PE-15	89	88	100	100	93	100	122	91
460-246010-8	104_PE-9	88	83	94	94	86	79	97	87
460-246010-9	105_PE-16	90	87	98	94	90	89	109	87
460-246010-10	106_PE-18	79	81	90	86	79	68	87	81
LCS 410-190726/2-B	Lab Control Sample	95	93	94	95	91	78	94	96
LCSD 410-190726/3-B	Lab Control Sample Dup	93	91	94	95	86	81	97	96
MB 410-190726/1-B	Method Blank	83	82	94	91	89	70	84	86

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)
460-246010-1	097_PE-2	83	90
460-246010-2	098_PE-3	88	93
460-246010-3	099_PE-5	93	99
460-246010-4	100_PE-8	89	95
460-246010-5	101_PE-7	84	90
460-246010-6	102_PE-14	92	96
460-246010-7	103_PE-15	92	101
460-246010-8	104_PE-9	84	93
460-246010-9	105_PE-16	88	94
460-246010-10	106_PE-18	77	82
LCS 410-190726/2-B	Lab Control Sample	87	92
LCSD 410-190726/3-B	Lab Control Sample Dup	87	92
MB 410-190726/1-B	Method Blank	88	94

Surrogate Legend

M282FTS = M2-8:2 FTS

M262FTS = M2-6:2 FTS

Eurofins Edison

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-810451/7

Matrix: Water

Analysis Batch: 810451

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			10/31/21 07:44	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			10/31/21 07:44	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			10/31/21 07:44	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/31/21 07:44	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			10/31/21 07:44	1
Acetone	5.0	U	5.0	4.4	ug/L			10/31/21 07:44	1
Benzene	1.0	U	1.0	0.20	ug/L			10/31/21 07:44	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			10/31/21 07:44	1
Chloroform	1.0	U	1.0	0.33	ug/L			10/31/21 07:44	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			10/31/21 07:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			10/31/21 07:44	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			10/31/21 07:44	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			10/31/21 07:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			10/31/21 07:44	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			10/31/21 07:44	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			10/31/21 07:44	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			10/31/21 07:44	1
1,4-Dioxane	50	U	50	28	ug/L			10/31/21 07:44	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			10/31/21 07:44	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			10/31/21 07:44	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			10/31/21 07:44	1
Toluene	1.0	U	1.0	0.38	ug/L			10/31/21 07:44	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			10/31/21 07:44	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			10/31/21 07:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			10/31/21 07:44	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			10/31/21 07:44	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			10/31/21 07:44	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			10/31/21 07:44	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			10/31/21 07:44	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			10/31/21 07:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		75 - 123		10/31/21 07:44	1
4-Bromofluorobenzene	95		76 - 120		10/31/21 07:44	1
Toluene-d8 (Surr)	101		80 - 120		10/31/21 07:44	1
Dibromofluoromethane (Surr)	102		77 - 124		10/31/21 07:44	1

Lab Sample ID: LCS 460-810451/3

Matrix: Water

Analysis Batch: 810451

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	17.5		ug/L		87	68 - 133
1,1-Dichloroethane	20.0	18.5		ug/L		93	73 - 130
1,2-Dichloroethane	20.0	19.5		ug/L		97	75 - 121
1,1,1-Trichloroethane	20.0	19.0		ug/L		95	68 - 128
2-Butanone (MEK)	100	98.6		ug/L		99	69 - 128
Acetone	100	96.9		ug/L		97	61 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-810451/3

Matrix: Water

Analysis Batch: 810451

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	20.9		ug/L		104	78 - 126
Carbon tetrachloride	20.0	19.0		ug/L		95	56 - 131
Chloroform	20.0	18.6		ug/L		93	78 - 125
Chlorobenzene	20.0	20.3		ug/L		102	80 - 119
cis-1,2-Dichloroethene	20.0	17.5		ug/L		87	78 - 121
Ethylbenzene	20.0	19.3		ug/L		96	78 - 120
Methylene Chloride	20.0	17.3		ug/L		87	74 - 127
m-Xylene & p-Xylene	20.0	20.3		ug/L		101	78 - 123
Methyl tert-butyl ether	20.0	18.0		ug/L		90	65 - 131
1,3-Dichlorobenzene	20.0	18.1		ug/L		90	80 - 121
1,4-Dichlorobenzene	20.0	18.5		ug/L		93	80 - 118
o-Xylene	20.0	19.1		ug/L		95	78 - 122
1,2-Dichlorobenzene	20.0	19.8		ug/L		99	79 - 122
1,4-Dioxane	400	407		ug/L		102	70 - 142
1,2,4-Trimethylbenzene	20.0	20.3		ug/L		102	75 - 125
Tetrachloroethene	20.0	19.3		ug/L		97	70 - 127
1,3,5-Trimethylbenzene	20.0	19.8		ug/L		99	75 - 125
Toluene	20.0	20.0		ug/L		100	78 - 119
N-Propylbenzene	20.0	20.8		ug/L		104	74 - 129
sec-Butylbenzene	20.0	20.5		ug/L		103	73 - 129
trans-1,2-Dichloroethene	20.0	18.5		ug/L		92	74 - 126
tert-Butylbenzene	20.0	19.3		ug/L		97	72 - 124
Trichloroethene	20.0	19.8		ug/L		99	71 - 121
n-Butylbenzene	20.0	19.5		ug/L		98	69 - 135
Vinyl chloride	20.0	18.4		ug/L		92	61 - 144
Xylenes, Total	40.0	39.3		ug/L		98	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		75 - 123
4-Bromofluorobenzene	96		76 - 120
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	94		77 - 124

Lab Sample ID: LCSD 460-810451/4

Matrix: Water

Analysis Batch: 810451

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	17.3		ug/L		87	68 - 133	1	30
1,1-Dichloroethane	20.0	18.7		ug/L		94	73 - 130	1	30
1,2-Dichloroethane	20.0	20.5		ug/L		103	75 - 121	5	30
1,1,1-Trichloroethane	20.0	19.0		ug/L		95	68 - 128	0	30
2-Butanone (MEK)	100	105		ug/L		105	69 - 128	6	30
Acetone	100	95.6		ug/L		96	61 - 134	1	30
Benzene	20.0	20.5		ug/L		102	78 - 126	2	30
Carbon tetrachloride	20.0	19.9		ug/L		99	56 - 131	5	30
Chloroform	20.0	19.2		ug/L		96	78 - 125	3	30
Chlorobenzene	20.0	19.6		ug/L		98	80 - 119	4	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-810451/4

Matrix: Water

Analysis Batch: 810451

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	17.5		ug/L		88	78 - 121	0	30
Ethylbenzene	20.0	19.6		ug/L		98	78 - 120	2	30
Methylene Chloride	20.0	18.5		ug/L		93	74 - 127	7	30
m-Xylene & p-Xylene	20.0	19.3		ug/L		96	78 - 123	5	30
Methyl tert-butyl ether	20.0	19.2		ug/L		96	65 - 131	7	30
1,3-Dichlorobenzene	20.0	17.8		ug/L		89	80 - 121	1	30
1,4-Dichlorobenzene	20.0	18.4		ug/L		92	80 - 118	1	30
o-Xylene	20.0	18.7		ug/L		93	78 - 122	2	30
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	79 - 122	2	30
1,4-Dioxane	400	336		ug/L		84	70 - 142	19	30
1,2,4-Trimethylbenzene	20.0	19.5		ug/L		97	75 - 125	4	30
Tetrachloroethene	20.0	18.9		ug/L		94	70 - 127	2	30
1,3,5-Trimethylbenzene	20.0	19.8		ug/L		99	75 - 125	0	30
Toluene	20.0	20.0		ug/L		100	78 - 119	0	30
N-Propylbenzene	20.0	21.0		ug/L		105	74 - 129	1	30
sec-Butylbenzene	20.0	20.4		ug/L		102	73 - 129	1	30
trans-1,2-Dichloroethene	20.0	18.6		ug/L		93	74 - 126	1	30
tert-Butylbenzene	20.0	19.2		ug/L		96	72 - 124	1	30
Trichloroethene	20.0	18.6		ug/L		93	71 - 121	7	30
n-Butylbenzene	20.0	19.8		ug/L		99	69 - 135	2	30
Vinyl chloride	20.0	18.5		ug/L		93	61 - 144	0	30
Xylenes, Total	40.0	37.9		ug/L		95	78 - 122	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		75 - 123
4-Bromofluorobenzene	97		76 - 120
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	96		77 - 124

Lab Sample ID: MB 460-810773/8

Matrix: Solid

Analysis Batch: 810773

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			11/02/21 10:04	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			11/02/21 10:04	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			11/02/21 10:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			11/02/21 10:04	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			11/02/21 10:04	1
Acetone	6.0	U	6.0	5.7	ug/Kg			11/02/21 10:04	1
Benzene	1.0	U	1.0	0.26	ug/Kg			11/02/21 10:04	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			11/02/21 10:04	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			11/02/21 10:04	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			11/02/21 10:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			11/02/21 10:04	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			11/02/21 10:04	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			11/02/21 10:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			11/02/21 10:04	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-810773/8

Matrix: Solid

Analysis Batch: 810773

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			11/02/21 10:04	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			11/02/21 10:04	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			11/02/21 10:04	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			11/02/21 10:04	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			11/02/21 10:04	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			11/02/21 10:04	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			11/02/21 10:04	1
Toluene	1.0	U	1.0	0.23	ug/Kg			11/02/21 10:04	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			11/02/21 10:04	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/02/21 10:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			11/02/21 10:04	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			11/02/21 10:04	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			11/02/21 10:04	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/02/21 10:04	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			11/02/21 10:04	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			11/02/21 10:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		77 - 145		11/02/21 10:04	1
4-Bromofluorobenzene	93		70 - 139		11/02/21 10:04	1
Toluene-d8 (Surr)	86		80 - 120		11/02/21 10:04	1
Dibromofluoromethane (Surr)	98		48 - 150		11/02/21 10:04	1

Lab Sample ID: LCS 460-810773/3

Matrix: Solid

Analysis Batch: 810773

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	18.5		ug/Kg		92	77 - 132
1,1-Dichloroethane	20.0	18.2		ug/Kg		91	76 - 129
1,2-Dichloroethane	20.0	15.3		ug/Kg		77	70 - 132
1,1,1-Trichloroethane	20.0	16.6		ug/Kg		83	78 - 132
2-Butanone (MEK)	100	72.3	*	ug/Kg		72	75 - 120
Acetone	100	76.2		ug/Kg		76	63 - 131
Benzene	20.0	17.8		ug/Kg		89	80 - 123
Carbon tetrachloride	20.0	16.2		ug/Kg		81	72 - 136
Chloroform	20.0	17.0		ug/Kg		85	79 - 126
Chlorobenzene	20.0	15.9	*	ug/Kg		79	80 - 120
cis-1,2-Dichloroethene	20.0	17.2		ug/Kg		86	80 - 123
Ethylbenzene	20.0	16.3		ug/Kg		81	80 - 120
Methylene Chloride	20.0	18.0		ug/Kg		90	76 - 127
m-Xylene & p-Xylene	20.0	16.3		ug/Kg		81	80 - 120
Methyl tert-butyl ether	20.0	17.2		ug/Kg		86	80 - 125
1,3-Dichlorobenzene	20.0	16.8		ug/Kg		84	80 - 120
1,4-Dichlorobenzene	20.0	16.9		ug/Kg		85	80 - 120
o-Xylene	20.0	16.4		ug/Kg		82	80 - 120
1,2-Dichlorobenzene	20.0	16.9		ug/Kg		85	80 - 120
1,4-Dioxane	400	321		ug/Kg		80	73 - 136

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-810773/3

Matrix: Solid

Analysis Batch: 810773

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	16.8		ug/Kg		84	79 - 120
Tetrachloroethene	20.0	15.7		ug/Kg		79	78 - 123
1,3,5-Trimethylbenzene	20.0	16.8		ug/Kg		84	79 - 120
Toluene	20.0	16.3		ug/Kg		81	80 - 120
N-Propylbenzene	20.0	18.3		ug/Kg		91	78 - 120
sec-Butylbenzene	20.0	18.2		ug/Kg		91	78 - 120
trans-1,2-Dichloroethene	20.0	17.9		ug/Kg		90	78 - 128
tert-Butylbenzene	20.0	17.3		ug/Kg		86	76 - 120
Trichloroethene	20.0	16.9		ug/Kg		85	79 - 120
n-Butylbenzene	20.0	18.2		ug/Kg		91	77 - 123
Vinyl chloride	20.0	21.1		ug/Kg		106	56 - 147
Xylenes, Total	40.0	32.7		ug/Kg		82	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		77 - 145
4-Bromofluorobenzene	95		70 - 139
Toluene-d8 (Surr)	89		80 - 120
Dibromofluoromethane (Surr)	97		48 - 150

Lab Sample ID: LCSD 460-810773/4

Matrix: Solid

Analysis Batch: 810773

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	21.0		ug/Kg		105	77 - 132	13	30
1,1-Dichloroethane	20.0	20.5		ug/Kg		102	76 - 129	11	30
1,2-Dichloroethane	20.0	17.3		ug/Kg		86	70 - 132	12	30
1,1,1-Trichloroethane	20.0	18.8		ug/Kg		94	78 - 132	12	30
2-Butanone (MEK)	100	81.3		ug/Kg		81	75 - 120	12	30
Acetone	100	84.5		ug/Kg		84	63 - 131	10	30
Benzene	20.0	19.9		ug/Kg		99	80 - 123	11	30
Carbon tetrachloride	20.0	18.3		ug/Kg		91	72 - 136	12	30
Chloroform	20.0	19.1		ug/Kg		95	79 - 126	12	30
Chlorobenzene	20.0	18.0		ug/Kg		90	80 - 120	13	30
cis-1,2-Dichloroethene	20.0	19.6		ug/Kg		98	80 - 123	13	30
Ethylbenzene	20.0	18.2		ug/Kg		91	80 - 120	11	30
Methylene Chloride	20.0	20.3		ug/Kg		101	76 - 127	12	30
m-Xylene & p-Xylene	20.0	18.2		ug/Kg		91	80 - 120	11	30
Methyl tert-butyl ether	20.0	19.6		ug/Kg		98	80 - 125	13	30
1,3-Dichlorobenzene	20.0	19.0		ug/Kg		95	80 - 120	12	30
1,4-Dichlorobenzene	20.0	19.0		ug/Kg		95	80 - 120	12	30
o-Xylene	20.0	18.3		ug/Kg		91	80 - 120	11	30
1,2-Dichlorobenzene	20.0	18.8		ug/Kg		94	80 - 120	11	30
1,4-Dioxane	400	339		ug/Kg		85	73 - 136	5	30
1,2,4-Trimethylbenzene	20.0	18.8		ug/Kg		94	79 - 120	12	30
Tetrachloroethene	20.0	17.7		ug/Kg		89	78 - 123	12	30
1,3,5-Trimethylbenzene	20.0	18.8		ug/Kg		94	79 - 120	11	30
Toluene	20.0	18.8		ug/Kg		94	80 - 120	14	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-810773/4

Matrix: Solid

Analysis Batch: 810773

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Propylbenzene	20.0	20.4		ug/Kg		102	78 - 120	11	30
sec-Butylbenzene	20.0	20.3		ug/Kg		101	78 - 120	11	30
trans-1,2-Dichloroethene	20.0	20.4		ug/Kg		102	78 - 128	13	30
tert-Butylbenzene	20.0	19.0		ug/Kg		95	76 - 120	10	30
Trichloroethene	20.0	19.2		ug/Kg		96	79 - 120	13	30
n-Butylbenzene	20.0	20.4		ug/Kg		102	77 - 123	12	30
Vinyl chloride	20.0	22.2		ug/Kg		111	56 - 147	5	30
Xylenes, Total	40.0	36.5		ug/Kg		91	80 - 120	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		77 - 145
4-Bromofluorobenzene	102		70 - 139
Toluene-d8 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	104		48 - 150

Lab Sample ID: MB 460-810922/9

Matrix: Solid

Analysis Batch: 810922

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			11/02/21 22:04	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			11/02/21 22:04	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			11/02/21 22:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			11/02/21 22:04	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			11/02/21 22:04	1
Acetone	6.0	U	6.0	5.7	ug/Kg			11/02/21 22:04	1
Benzene	1.0	U	1.0	0.26	ug/Kg			11/02/21 22:04	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			11/02/21 22:04	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			11/02/21 22:04	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			11/02/21 22:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			11/02/21 22:04	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			11/02/21 22:04	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			11/02/21 22:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			11/02/21 22:04	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			11/02/21 22:04	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			11/02/21 22:04	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			11/02/21 22:04	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			11/02/21 22:04	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			11/02/21 22:04	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			11/02/21 22:04	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			11/02/21 22:04	1
Toluene	1.0	U	1.0	0.23	ug/Kg			11/02/21 22:04	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			11/02/21 22:04	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/02/21 22:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			11/02/21 22:04	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			11/02/21 22:04	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			11/02/21 22:04	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/02/21 22:04	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-810922/9

Matrix: Solid

Analysis Batch: 810922

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			11/02/21 22:04	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			11/02/21 22:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 145					11/02/21 22:04	1
4-Bromofluorobenzene	100		70 - 139					11/02/21 22:04	1
Toluene-d8 (Surr)	91		80 - 120					11/02/21 22:04	1
Dibromofluoromethane (Surr)	103		48 - 150					11/02/21 22:04	1

Lab Sample ID: LCS 460-810922/3

Matrix: Solid

Analysis Batch: 810922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	20.6		ug/Kg		103	77 - 132
1,1-Dichloroethane	20.0	20.1		ug/Kg		101	76 - 129
1,2-Dichloroethane	20.0	17.0		ug/Kg		85	70 - 132
1,1,1-Trichloroethane	20.0	18.1		ug/Kg		91	78 - 132
2-Butanone (MEK)	100	80.3		ug/Kg		80	75 - 120
Acetone	100	85.4		ug/Kg		85	63 - 131
Benzene	20.0	19.8		ug/Kg		99	80 - 123
Carbon tetrachloride	20.0	17.7		ug/Kg		88	72 - 136
Chloroform	20.0	18.6		ug/Kg		93	79 - 126
Chlorobenzene	20.0	17.9		ug/Kg		89	80 - 120
cis-1,2-Dichloroethene	20.0	19.2		ug/Kg		96	80 - 123
Ethylbenzene	20.0	17.9		ug/Kg		90	80 - 120
Methylene Chloride	20.0	20.0		ug/Kg		100	76 - 127
m-Xylene & p-Xylene	20.0	18.0		ug/Kg		90	80 - 120
Methyl tert-butyl ether	20.0	19.1		ug/Kg		95	80 - 125
1,3-Dichlorobenzene	20.0	18.5		ug/Kg		93	80 - 120
1,4-Dichlorobenzene	20.0	18.7		ug/Kg		94	80 - 120
o-Xylene	20.0	17.8		ug/Kg		89	80 - 120
1,2-Dichlorobenzene	20.0	18.3		ug/Kg		92	80 - 120
1,4-Dioxane	400	367		ug/Kg		92	73 - 136
1,2,4-Trimethylbenzene	20.0	18.2		ug/Kg		91	79 - 120
Tetrachloroethene	20.0	17.4		ug/Kg		87	78 - 123
1,3,5-Trimethylbenzene	20.0	18.3		ug/Kg		91	79 - 120
Toluene	20.0	18.3		ug/Kg		92	80 - 120
N-Propylbenzene	20.0	19.8		ug/Kg		99	78 - 120
sec-Butylbenzene	20.0	18.5		ug/Kg		93	78 - 120
trans-1,2-Dichloroethene	20.0	20.0		ug/Kg		100	78 - 128
tert-Butylbenzene	20.0	17.7		ug/Kg		89	76 - 120
Trichloroethene	20.0	19.1		ug/Kg		95	79 - 120
n-Butylbenzene	20.0	18.2		ug/Kg		91	77 - 123
Vinyl chloride	20.0	21.5		ug/Kg		108	56 - 147
Xylenes, Total	40.0	35.8		ug/Kg		90	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-810922/3

Matrix: Solid

Analysis Batch: 810922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		77 - 145
4-Bromofluorobenzene	102		70 - 139
Toluene-d8 (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	102		48 - 150

Lab Sample ID: LCSD 460-810922/5

Matrix: Solid

Analysis Batch: 810922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	22.9		ug/Kg		114	77 - 132	10	30
1,1-Dichloroethane	20.0	22.0		ug/Kg		110	76 - 129	9	30
1,2-Dichloroethane	20.0	18.7		ug/Kg		93	70 - 132	9	30
1,1,1-Trichloroethane	20.0	20.4		ug/Kg		102	78 - 132	12	30
2-Butanone (MEK)	100	82.9		ug/Kg		83	75 - 120	3	30
Acetone	100	87.4		ug/Kg		87	63 - 131	2	30
Benzene	20.0	21.6		ug/Kg		108	80 - 123	9	30
Carbon tetrachloride	20.0	19.9		ug/Kg		100	72 - 136	12	30
Chloroform	20.0	20.1		ug/Kg		101	79 - 126	8	30
Chlorobenzene	20.0	19.2		ug/Kg		96	80 - 120	7	30
cis-1,2-Dichloroethene	20.0	20.7		ug/Kg		104	80 - 123	8	30
Ethylbenzene	20.0	19.8		ug/Kg		99	80 - 120	10	30
Methylene Chloride	20.0	21.4		ug/Kg		107	76 - 127	7	30
m-Xylene & p-Xylene	20.0	19.7		ug/Kg		99	80 - 120	9	30
Methyl tert-butyl ether	20.0	21.4		ug/Kg		107	80 - 125	12	30
1,3-Dichlorobenzene	20.0	20.0		ug/Kg		100	80 - 120	8	30
1,4-Dichlorobenzene	20.0	20.0		ug/Kg		100	80 - 120	7	30
o-Xylene	20.0	19.5		ug/Kg		97	80 - 120	9	30
1,2-Dichlorobenzene	20.0	19.9		ug/Kg		100	80 - 120	8	30
1,4-Dioxane	400	353		ug/Kg		88	73 - 136	4	30
1,2,4-Trimethylbenzene	20.0	20.1		ug/Kg		101	79 - 120	10	30
Tetrachloroethene	20.0	19.3		ug/Kg		97	78 - 123	11	30
1,3,5-Trimethylbenzene	20.0	20.2		ug/Kg		101	79 - 120	10	30
Toluene	20.0	20.1		ug/Kg		101	80 - 120	9	30
N-Propylbenzene	20.0	22.2		ug/Kg		111	78 - 120	11	30
sec-Butylbenzene	20.0	21.6		ug/Kg		108	78 - 120	15	30
trans-1,2-Dichloroethene	20.0	21.9		ug/Kg		110	78 - 128	9	30
tert-Butylbenzene	20.0	20.5		ug/Kg		102	76 - 120	14	30
Trichloroethene	20.0	21.3		ug/Kg		107	79 - 120	11	30
n-Butylbenzene	20.0	21.8		ug/Kg		109	77 - 123	18	30
Vinyl chloride	20.0	23.3		ug/Kg		117	56 - 147	8	30
Xylenes, Total	40.0	39.2		ug/Kg		98	80 - 120	9	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		77 - 145
4-Bromofluorobenzene	100		70 - 139
Toluene-d8 (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	102		48 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-811047/11

Matrix: Solid

Analysis Batch: 811047

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			11/03/21 12:22	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			11/03/21 12:22	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			11/03/21 12:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			11/03/21 12:22	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			11/03/21 12:22	1
Acetone	6.0	U	6.0	5.7	ug/Kg			11/03/21 12:22	1
Benzene	1.0	U	1.0	0.26	ug/Kg			11/03/21 12:22	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			11/03/21 12:22	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			11/03/21 12:22	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			11/03/21 12:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			11/03/21 12:22	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			11/03/21 12:22	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			11/03/21 12:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			11/03/21 12:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			11/03/21 12:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			11/03/21 12:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			11/03/21 12:22	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			11/03/21 12:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			11/03/21 12:22	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			11/03/21 12:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			11/03/21 12:22	1
Toluene	1.0	U	1.0	0.23	ug/Kg			11/03/21 12:22	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			11/03/21 12:22	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/03/21 12:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			11/03/21 12:22	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			11/03/21 12:22	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			11/03/21 12:22	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/03/21 12:22	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			11/03/21 12:22	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			11/03/21 12:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 145		11/03/21 12:22	1
4-Bromofluorobenzene	98		70 - 139		11/03/21 12:22	1
Toluene-d8 (Surr)	88		80 - 120		11/03/21 12:22	1
Dibromofluoromethane (Surr)	104		48 - 150		11/03/21 12:22	1

Lab Sample ID: LCS 460-811047/5

Matrix: Solid

Analysis Batch: 811047

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	21.7		ug/Kg		109	77 - 132
1,1-Dichloroethane	20.0	21.6		ug/Kg		108	76 - 129
1,2-Dichloroethane	20.0	18.0		ug/Kg		90	70 - 132
1,1,1-Trichloroethane	20.0	19.3		ug/Kg		97	78 - 132
2-Butanone (MEK)	100	89.7		ug/Kg		90	75 - 120
Acetone	100	97.4		ug/Kg		97	63 - 131

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-811047/5

Matrix: Solid

Analysis Batch: 811047

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	21.1		ug/Kg		106	80 - 123
Carbon tetrachloride	20.0	18.8		ug/Kg		94	72 - 136
Chloroform	20.0	19.7		ug/Kg		99	79 - 126
Chlorobenzene	20.0	19.0		ug/Kg		95	80 - 120
cis-1,2-Dichloroethene	20.0	20.3		ug/Kg		102	80 - 123
Ethylbenzene	20.0	19.2		ug/Kg		96	80 - 120
Methylene Chloride	20.0	21.3		ug/Kg		106	76 - 127
m-Xylene & p-Xylene	20.0	19.4		ug/Kg		97	80 - 120
Methyl tert-butyl ether	20.0	19.8		ug/Kg		99	80 - 125
1,3-Dichlorobenzene	20.0	20.3		ug/Kg		102	80 - 120
1,4-Dichlorobenzene	20.0	20.7		ug/Kg		104	80 - 120
o-Xylene	20.0	19.3		ug/Kg		96	80 - 120
1,2-Dichlorobenzene	20.0	20.1		ug/Kg		100	80 - 120
1,4-Dioxane	400	347		ug/Kg		87	73 - 136
1,2,4-Trimethylbenzene	20.0	20.1		ug/Kg		100	79 - 120
Tetrachloroethene	20.0	18.3		ug/Kg		91	78 - 123
1,3,5-Trimethylbenzene	20.0	19.9		ug/Kg		99	79 - 120
Toluene	20.0	19.6		ug/Kg		98	80 - 120
N-Propylbenzene	20.0	21.9		ug/Kg		109	78 - 120
sec-Butylbenzene	20.0	21.3		ug/Kg		106	78 - 120
trans-1,2-Dichloroethene	20.0	21.1		ug/Kg		106	78 - 128
tert-Butylbenzene	20.0	20.1		ug/Kg		100	76 - 120
Trichloroethene	20.0	20.0		ug/Kg		100	79 - 120
n-Butylbenzene	20.0	21.8		ug/Kg		109	77 - 123
Vinyl chloride	20.0	18.8		ug/Kg		94	56 - 147
Xylenes, Total	40.0	38.7		ug/Kg		97	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		77 - 145
4-Bromofluorobenzene	93		70 - 139
Toluene-d8 (Surr)	88		80 - 120
Dibromofluoromethane (Surr)	93		48 - 150

Lab Sample ID: LCSD 460-811047/6

Matrix: Solid

Analysis Batch: 811047

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	21.3		ug/Kg		106	77 - 132	2	30
1,1-Dichloroethane	20.0	21.9		ug/Kg		109	76 - 129	1	30
1,2-Dichloroethane	20.0	19.1		ug/Kg		95	70 - 132	6	30
1,1,1-Trichloroethane	20.0	19.0		ug/Kg		95	78 - 132	2	30
2-Butanone (MEK)	100	92.5		ug/Kg		92	75 - 120	3	30
Acetone	100	99.4		ug/Kg		99	63 - 131	2	30
Benzene	20.0	21.6		ug/Kg		108	80 - 123	2	30
Carbon tetrachloride	20.0	18.2		ug/Kg		91	72 - 136	3	30
Chloroform	20.0	20.4		ug/Kg		102	79 - 126	3	30
Chlorobenzene	20.0	19.5		ug/Kg		98	80 - 120	3	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-811047/6

Matrix: Solid

Analysis Batch: 811047

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	80 - 123	2	30
Ethylbenzene	20.0	19.4		ug/Kg		97	80 - 120	1	30
Methylene Chloride	20.0	22.2		ug/Kg		111	76 - 127	4	30
m-Xylene & p-Xylene	20.0	19.2		ug/Kg		96	80 - 120	1	30
Methyl tert-butyl ether	20.0	20.7		ug/Kg		103	80 - 125	4	30
1,3-Dichlorobenzene	20.0	20.5		ug/Kg		103	80 - 120	1	30
1,4-Dichlorobenzene	20.0	20.9		ug/Kg		104	80 - 120	1	30
o-Xylene	20.0	19.6		ug/Kg		98	80 - 120	2	30
1,2-Dichlorobenzene	20.0	20.7		ug/Kg		104	80 - 120	3	30
1,4-Dioxane	400	387		ug/Kg		97	73 - 136	11	30
1,2,4-Trimethylbenzene	20.0	20.3		ug/Kg		101	79 - 120	1	30
Tetrachloroethene	20.0	18.1		ug/Kg		90	78 - 123	1	30
1,3,5-Trimethylbenzene	20.0	19.9		ug/Kg		100	79 - 120	0	30
Toluene	20.0	19.9		ug/Kg		99	80 - 120	2	30
N-Propylbenzene	20.0	21.9		ug/Kg		109	78 - 120	0	30
sec-Butylbenzene	20.0	21.2		ug/Kg		106	78 - 120	0	30
trans-1,2-Dichloroethene	20.0	21.6		ug/Kg		108	78 - 128	2	30
tert-Butylbenzene	20.0	20.0		ug/Kg		100	76 - 120	0	30
Trichloroethene	20.0	20.0		ug/Kg		100	79 - 120	0	30
n-Butylbenzene	20.0	21.6		ug/Kg		108	77 - 123	1	30
Vinyl chloride	20.0	19.4		ug/Kg		97	56 - 147	3	30
Xylenes, Total	40.0	38.8		ug/Kg		97	80 - 120	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		77 - 145
4-Bromofluorobenzene	97		70 - 139
Toluene-d8 (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	97		48 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-810127/1-A

Matrix: Solid

Analysis Batch: 810280

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
2-Methylphenol	330	U	330	12	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Pentachlorophenol	270	U	270	68	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Naphthalene	330	U	330	5.7	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Acenaphthylene	330	U	330	3.3	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Acenaphthene	330	U	330	9.4	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Dibenzofuran	330	U	330	4.6	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Fluorene	330	U	330	4.5	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Hexachlorobenzene	33	U	33	16	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Phenanthrene	330	U	330	5.8	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Anthracene	330	U	330	10	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Fluoranthene	330	U	330	12	ug/Kg		10/29/21 10:03	10/29/21 23:49	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-810127/1-A

Matrix: Solid

Analysis Batch: 810280

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	330	U	330	8.2	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Chrysene	330	U	330	5.6	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		10/29/21 10:03	10/29/21 23:49	1
1,4-Dioxane	33	U	33	29	ug/Kg		10/29/21 10:03	10/29/21 23:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	78		11 - 104	10/29/21 10:03	10/29/21 23:49	1
Phenol-d5 (Surr)	78		15 - 100	10/29/21 10:03	10/29/21 23:49	1
Terphenyl-d14 (Surr)	80		12 - 126	10/29/21 10:03	10/29/21 23:49	1
2,4,6-Tribromophenol (Surr)	75		10 - 123	10/29/21 10:03	10/29/21 23:49	1
2-Fluorophenol (Surr)	77		10 - 105	10/29/21 10:03	10/29/21 23:49	1
2-Fluorobiphenyl	73		14 - 103	10/29/21 10:03	10/29/21 23:49	1

Lab Sample ID: LCS 460-810127/2-A

Matrix: Solid

Analysis Batch: 810280

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	2890		ug/Kg		87	63 - 110
2-Methylphenol	3330	2860		ug/Kg		86	63 - 108
3 & 4 Methylphenol	3330	2910		ug/Kg		87	61 - 108
Pentachlorophenol	6670	5990		ug/Kg		90	44 - 126
Naphthalene	3330	2840		ug/Kg		85	63 - 106
Acenaphthylene	3330	2880		ug/Kg		86	64 - 108
Acenaphthene	3330	2870		ug/Kg		86	53 - 110
Dibenzofuran	3330	2880		ug/Kg		86	65 - 108
Fluorene	3330	2910		ug/Kg		87	65 - 109
Hexachlorobenzene	3330	2980		ug/Kg		89	61 - 113
Phenanthrene	3330	3000		ug/Kg		90	66 - 112
Anthracene	3330	3020		ug/Kg		91	67 - 114
Fluoranthene	3330	3060		ug/Kg		92	61 - 106
Pyrene	3330	2990		ug/Kg		90	61 - 111
Benzo[a]anthracene	3330	2990		ug/Kg		90	67 - 115
Chrysene	3330	2910		ug/Kg		87	71 - 122
Benzo[b]fluoranthene	3330	3470		ug/Kg		104	70 - 125
Benzo[k]fluoranthene	3330	3100		ug/Kg		93	67 - 115
Benzo[a]pyrene	3330	3390		ug/Kg		102	73 - 123
Indeno[1,2,3-cd]pyrene	3330	3240		ug/Kg		97	62 - 121
Dibenz(a,h)anthracene	3330	3470		ug/Kg		104	66 - 119
Benzo[g,h,i]perylene	3330	3000		ug/Kg		90	61 - 113
1,4-Dioxane	3330	2650		ug/Kg		79	31 - 81

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-810127/2-A

Matrix: Solid

Analysis Batch: 810280

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	78		11 - 104
Phenol-d5 (Surr)	78		15 - 100
Terphenyl-d14 (Surr)	81		12 - 126
2,4,6-Tribromophenol (Surr)	84		10 - 123
2-Fluorophenol (Surr)	76		10 - 105
2-Fluorobiphenyl	74		14 - 103

Lab Sample ID: LCSD 460-810127/3-A

Matrix: Solid

Analysis Batch: 810280

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810127

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	2880		ug/Kg		87	63 - 110	0	30
2-Methylphenol	3330	2870		ug/Kg		86	63 - 108	0	30
3 & 4 Methylphenol	3330	2920		ug/Kg		87	61 - 108	0	30
Pentachlorophenol	6670	5890		ug/Kg		88	44 - 126	2	30
Naphthalene	3330	2830		ug/Kg		85	63 - 106	0	30
Acenaphthylene	3330	2860		ug/Kg		86	64 - 108	1	30
Acenaphthene	3330	2820		ug/Kg		84	53 - 110	2	30
Dibenzofuran	3330	2880		ug/Kg		87	65 - 108	0	30
Fluorene	3330	2930		ug/Kg		88	65 - 109	0	30
Hexachlorobenzene	3330	2930		ug/Kg		88	61 - 113	2	30
Phenanthrene	3330	2990		ug/Kg		90	66 - 112	0	30
Anthracene	3330	3000		ug/Kg		90	67 - 114	1	30
Fluoranthene	3330	3040		ug/Kg		91	61 - 106	1	30
Pyrene	3330	2970		ug/Kg		89	61 - 111	1	30
Benzo[a]anthracene	3330	2990		ug/Kg		90	67 - 115	0	30
Chrysene	3330	2940		ug/Kg		88	71 - 122	1	30
Benzo[b]fluoranthene	3330	3450		ug/Kg		104	70 - 125	1	30
Benzo[k]fluoranthene	3330	3140		ug/Kg		94	67 - 115	1	30
Benzo[a]pyrene	3330	3400		ug/Kg		102	73 - 123	0	30
Indeno[1,2,3-cd]pyrene	3330	3290		ug/Kg		99	62 - 121	2	30
Dibenz(a,h)anthracene	3330	3500		ug/Kg		105	66 - 119	1	30
Benzo[g,h,i]perylene	3330	3020		ug/Kg		91	61 - 113	1	30
1,4-Dioxane	3330	2710		ug/Kg		81	31 - 81	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	77		11 - 104
Phenol-d5 (Surr)	78		15 - 100
Terphenyl-d14 (Surr)	80		12 - 126
2,4,6-Tribromophenol (Surr)	83		10 - 123
2-Fluorophenol (Surr)	74		10 - 105
2-Fluorobiphenyl	73		14 - 103

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-810503/1-A

Matrix: Solid

Analysis Batch: 810578

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810503

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Chlordane (technical)	67	U	67	16	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Chlordane (technical)	67	U	67	16	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin	6.7	U	6.7	0.96	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin	6.7	U	6.7	0.96	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Toxaphene	67	U	67	24	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Toxaphene	67	U	67	24	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		10/31/21 08:58	11/01/21 12:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	108		10 - 150	10/31/21 08:58	11/01/21 12:18	1
DCB Decachlorobiphenyl	122		10 - 150	10/31/21 08:58	11/01/21 12:18	1
Tetrachloro-m-xylene	90		10 - 133	10/31/21 08:58	11/01/21 12:18	1
Tetrachloro-m-xylene	93		10 - 133	10/31/21 08:58	11/01/21 12:18	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 460-810503/2-A

Matrix: Solid

Analysis Batch: 810578

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810503

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	132		ug/Kg		99	70 - 140
4,4'-DDD	133	165		ug/Kg		124	70 - 140
4,4'-DDE	133	135		ug/Kg		101	71 - 137
4,4'-DDE	133	158		ug/Kg		118	71 - 137
4,4'-DDT	133	130		ug/Kg		97	63 - 131
4,4'-DDT	133	147		ug/Kg		110	63 - 131
Aldrin	133	131		ug/Kg		99	74 - 140
Aldrin	133	153		ug/Kg		115	74 - 140
alpha-BHC	133	128		ug/Kg		96	72 - 142
alpha-BHC	133	155		ug/Kg		117	72 - 142
beta-BHC	133	150		ug/Kg		113	65 - 137
beta-BHC	133	164		ug/Kg		123	65 - 137
delta-BHC	133	132		ug/Kg		99	70 - 143
delta-BHC	133	150		ug/Kg		112	70 - 143
Dieldrin	133	136		ug/Kg		102	70 - 135
Dieldrin	133	165		ug/Kg		123	70 - 135
Endosulfan I	133	138		ug/Kg		104	68 - 135
Endosulfan I	133	161		ug/Kg		121	68 - 135
Endosulfan II	133	147		ug/Kg		110	64 - 130
Endosulfan II	133	173		ug/Kg		130	64 - 130
Endosulfan sulfate	133	148		ug/Kg		111	66 - 143
Endosulfan sulfate	133	172		ug/Kg		129	66 - 143
Endrin	133	132		ug/Kg		99	68 - 136
Endrin	133	159		ug/Kg		119	68 - 136
Endrin aldehyde	133	143		ug/Kg		107	68 - 132
Endrin aldehyde	133	168		ug/Kg		126	68 - 132
Endrin ketone	133	148		ug/Kg		111	60 - 150
Endrin ketone	133	163		ug/Kg		122	60 - 150
gamma-BHC (Lindane)	133	135		ug/Kg		101	70 - 134
gamma-BHC (Lindane)	133	152		ug/Kg		114	70 - 134
Heptachlor	133	130		ug/Kg		98	69 - 134
Heptachlor	133	152		ug/Kg		114	69 - 134
Heptachlor epoxide	133	134		ug/Kg		100	70 - 135
Heptachlor epoxide	133	156		ug/Kg		117	70 - 135
Methoxychlor	133	119		ug/Kg		89	57 - 135
Methoxychlor	133	120		ug/Kg		90	57 - 135
cis-Chlordane	133	135		ug/Kg		101	70 - 136
cis-Chlordane	133	158		ug/Kg		119	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	107		10 - 150
DCB Decachlorobiphenyl	104		10 - 150
Tetrachloro-m-xylene	91		10 - 133
Tetrachloro-m-xylene	91		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-810503/3-A

Matrix: Solid

Analysis Batch: 810578

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810503

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	133	129		ug/Kg		97	70 - 140	2	30
4,4'-DDD	133	168		ug/Kg		126	70 - 140	2	30
4,4'-DDE	133	137		ug/Kg		103	71 - 137	1	30
4,4'-DDE	133	163		ug/Kg		122	71 - 137	3	30
4,4'-DDT	133	124		ug/Kg		93	63 - 131	5	30
4,4'-DDT	133	150		ug/Kg		112	63 - 131	2	30
Aldrin	133	133		ug/Kg		100	74 - 140	1	30
Aldrin	133	157		ug/Kg		118	74 - 140	3	30
alpha-BHC	133	133		ug/Kg		99	72 - 142	4	30
alpha-BHC	133	158		ug/Kg		119	72 - 142	2	30
beta-BHC	133	156		ug/Kg		117	65 - 137	4	30
beta-BHC	133	167		ug/Kg		125	65 - 137	2	30
delta-BHC	133	137		ug/Kg		103	70 - 143	3	30
delta-BHC	133	153		ug/Kg		115	70 - 143	2	30
Dieldrin	133	138		ug/Kg		103	70 - 135	1	30
Dieldrin	133	170		ug/Kg		127	70 - 135	3	30
Endosulfan I	133	141		ug/Kg		105	68 - 135	2	30
Endosulfan I	133	166		ug/Kg		125	68 - 135	3	30
Endosulfan II	133	144		ug/Kg		108	64 - 130	2	30
Endosulfan II	133	177 *		ug/Kg		132	64 - 130	2	30
Endosulfan sulfate	133	141		ug/Kg		106	66 - 143	5	30
Endosulfan sulfate	133	174		ug/Kg		131	66 - 143	2	30
Endrin	133	131		ug/Kg		98	68 - 136	1	30
Endrin	133	163		ug/Kg		122	68 - 136	2	30
Endrin aldehyde	133	137		ug/Kg		103	68 - 132	4	30
Endrin aldehyde	133	171		ug/Kg		128	68 - 132	2	30
Endrin ketone	133	149		ug/Kg		112	60 - 150	1	30
Endrin ketone	133	165		ug/Kg		124	60 - 150	1	30
gamma-BHC (Lindane)	133	139		ug/Kg		104	70 - 134	3	30
gamma-BHC (Lindane)	133	156		ug/Kg		117	70 - 134	2	30
Heptachlor	133	135		ug/Kg		101	69 - 134	3	30
Heptachlor	133	156		ug/Kg		117	69 - 134	3	30
Heptachlor epoxide	133	137		ug/Kg		103	70 - 135	3	30
Heptachlor epoxide	133	161		ug/Kg		121	70 - 135	3	30
Methoxychlor	133	120		ug/Kg		90	57 - 135	1	30
Methoxychlor	133	121		ug/Kg		91	57 - 135	1	30
cis-Chlordane	133	136		ug/Kg		102	70 - 136	1	30
cis-Chlordane	133	164		ug/Kg		123	70 - 136	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	95		10 - 150
DCB Decachlorobiphenyl	107		10 - 150
Tetrachloro-m-xylene	92		10 - 133
Tetrachloro-m-xylene	91		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-246010-1 MS

Matrix: Solid

Analysis Batch: 810578

Client Sample ID: 097_PE-2

Prep Type: Total/NA

Prep Batch: 810503

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	7.5	U	150	167		ug/Kg	⊛	111	70 - 140
4,4'-DDD	7.5	U	150	207		ug/Kg	⊛	138	70 - 140
4,4'-DDE	7.5	U	150	173		ug/Kg	⊛	116	71 - 137
4,4'-DDE	7.5	U	150	204		ug/Kg	⊛	136	71 - 137
4,4'-DDT	7.5	U	150	178		ug/Kg	⊛	119	63 - 131
4,4'-DDT	7.5	U	150	194		ug/Kg	⊛	129	63 - 131
Aldrin	7.5	U	150	161		ug/Kg	⊛	107	74 - 140
Aldrin	7.5	U	150	187		ug/Kg	⊛	125	74 - 140
alpha-BHC	2.3	U	150	152		ug/Kg	⊛	101	72 - 142
alpha-BHC	2.3	U	150	183		ug/Kg	⊛	122	72 - 142
beta-BHC	2.3	U	150	186		ug/Kg	⊛	124	65 - 137
beta-BHC	2.3	U	150	204		ug/Kg	⊛	136	65 - 137
delta-BHC	2.3	U	150	163		ug/Kg	⊛	109	70 - 143
delta-BHC	2.3	U	150	186		ug/Kg	⊛	124	70 - 143
Dieldrin	2.3	U	150	174		ug/Kg	⊛	116	70 - 135
Dieldrin	2.3	U	150	208	*	ug/Kg	⊛	139	70 - 135
Endosulfan I	7.5	U	150	177		ug/Kg	⊛	118	68 - 135
Endosulfan I	7.5	U	150	201		ug/Kg	⊛	134	68 - 135
Endosulfan II	7.5	U *	150	182		ug/Kg	⊛	121	64 - 130
Endosulfan II	7.5	U *	150	211	*	ug/Kg	⊛	141	64 - 130
Endosulfan sulfate	7.5	U	150	178		ug/Kg	⊛	118	66 - 143
Endosulfan sulfate	7.5	U	150	191		ug/Kg	⊛	127	66 - 143
Endrin	7.5	U	150	175		ug/Kg	⊛	116	68 - 136
Endrin	7.5	U	150	205	*	ug/Kg	⊛	137	68 - 136
Endrin aldehyde	7.5	U	150	146		ug/Kg	⊛	97	68 - 132
Endrin aldehyde	7.5	U	150	159		ug/Kg	⊛	106	68 - 132
Endrin ketone	7.5	U	150	191		ug/Kg	⊛	127	60 - 150
Endrin ketone	7.5	U	150	197		ug/Kg	⊛	131	60 - 150
gamma-BHC (Lindane)	2.3	U	150	166		ug/Kg	⊛	110	70 - 134
gamma-BHC (Lindane)	2.3	U	150	186		ug/Kg	⊛	124	70 - 134
Heptachlor	7.5	U	150	159		ug/Kg	⊛	106	69 - 134
Heptachlor	7.5	U	150	187		ug/Kg	⊛	125	69 - 134
Heptachlor epoxide	7.5	U	150	169		ug/Kg	⊛	113	70 - 135
Heptachlor epoxide	7.5	U	150	197		ug/Kg	⊛	131	70 - 135
Methoxychlor	7.5	U	150	178		ug/Kg	⊛	119	57 - 135
Methoxychlor	7.5	U	150	165		ug/Kg	⊛	110	57 - 135
cis-Chlordane	7.5	U	150	172		ug/Kg	⊛	115	70 - 136
cis-Chlordane	7.5	U	150	200		ug/Kg	⊛	133	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	128		10 - 150
DCB Decachlorobiphenyl	114		10 - 150
Tetrachloro-m-xylene	83		10 - 133
Tetrachloro-m-xylene	80		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-246010-1 MSD

Matrix: Solid

Analysis Batch: 810578

Client Sample ID: 097_PE-2

Prep Type: Total/NA

Prep Batch: 810503

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	7.5	U	150	178		ug/Kg	☼	119	70 - 140	7	30
4,4'-DDD	7.5	U	150	234	*	ug/Kg	☼	156	70 - 140	12	30
4,4'-DDE	7.5	U	150	186		ug/Kg	☼	124	71 - 137	7	30
4,4'-DDE	7.5	U	150	236	*	ug/Kg	☼	157	71 - 137	14	30
4,4'-DDT	7.5	U	150	198	*	ug/Kg	☼	132	63 - 131	10	30
4,4'-DDT	7.5	U	150	226	*	ug/Kg	☼	150	63 - 131	15	30
Aldrin	7.5	U	150	179		ug/Kg	☼	119	74 - 140	11	30
Aldrin	7.5	U	150	219	*	ug/Kg	☼	146	74 - 140	15	30
alpha-BHC	2.3	U	150	177		ug/Kg	☼	118	72 - 142	15	30
alpha-BHC	2.3	U	150	219	*	ug/Kg	☼	146	72 - 142	18	30
beta-BHC	2.3	U	150	201		ug/Kg	☼	134	65 - 137	8	30
beta-BHC	2.3	U	150	229	*	ug/Kg	☼	152	65 - 137	11	30
delta-BHC	2.3	U	150	186		ug/Kg	☼	124	70 - 143	13	30
delta-BHC	2.3	U	150	214		ug/Kg	☼	142	70 - 143	14	30
Dieldrin	2.3	U	150	187		ug/Kg	☼	124	70 - 135	7	30
Dieldrin	2.3	U	150	238	*	ug/Kg	☼	159	70 - 135	14	30
Endosulfan I	7.5	U	150	189		ug/Kg	☼	126	68 - 135	6	30
Endosulfan I	7.5	U	150	229	*	ug/Kg	☼	153	68 - 135	13	30
Endosulfan II	7.5	U *	150	192		ug/Kg	☼	128	64 - 130	6	30
Endosulfan II	7.5	U *	150	241	*	ug/Kg	☼	160	64 - 130	13	30
Endosulfan sulfate	7.5	U	150	86.5	p *	ug/Kg	☼	58	66 - 143	69	30
Endosulfan sulfate	7.5	U	150	211		ug/Kg	☼	141	66 - 143	10	30
Endrin	7.5	U	150	187		ug/Kg	☼	124	68 - 136	7	30
Endrin	7.5	U	150	235	*	ug/Kg	☼	156	68 - 136	13	30
Endrin aldehyde	7.5	U	150	152		ug/Kg	☼	101	68 - 132	4	30
Endrin aldehyde	7.5	U	150	178		ug/Kg	☼	119	68 - 132	11	30
Endrin ketone	7.5	U	150	195		ug/Kg	☼	130	60 - 150	2	30
Endrin ketone	7.5	U	150	221		ug/Kg	☼	147	60 - 150	12	30
gamma-BHC (Lindane)	2.3	U	150	187		ug/Kg	☼	125	70 - 134	12	30
gamma-BHC (Lindane)	2.3	U	150	217	*	ug/Kg	☼	145	70 - 134	15	30
Heptachlor	7.5	U	150	185		ug/Kg	☼	123	69 - 134	15	30
Heptachlor	7.5	U	150	219	*	ug/Kg	☼	146	69 - 134	16	30
Heptachlor epoxide	7.5	U	150	185		ug/Kg	☼	123	70 - 135	9	30
Heptachlor epoxide	7.5	U	150	224	*	ug/Kg	☼	149	70 - 135	13	30
Methoxychlor	7.5	U	150	179		ug/Kg	☼	119	57 - 135	0	30
Methoxychlor	7.5	U	150	193		ug/Kg	☼	128	57 - 135	15	30
cis-Chlordane	7.5	U	150	184		ug/Kg	☼	123	70 - 136	7	30
cis-Chlordane	7.5	U	150	229	*	ug/Kg	☼	152	70 - 136	13	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	117		10 - 150
DCB Decachlorobiphenyl	133		10 - 150
Tetrachloro-m-xylene	90		10 - 133
Tetrachloro-m-xylene	93		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-810497/1-A

Matrix: Solid

Analysis Batch: 810692

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1016	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1221	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1221	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1232	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1232	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1242	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1242	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1248	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1248	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1254	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1254	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1260	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1260	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor-1262	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor-1262	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1268	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1268	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		37 - 150	10/31/21 08:47	11/01/21 18:23	1
DCB Decachlorobiphenyl	118		37 - 150	10/31/21 08:47	11/01/21 18:23	1
Tetrachloro-m-xylene	96		54 - 150	10/31/21 08:47	11/01/21 18:23	1
Tetrachloro-m-xylene	95		54 - 150	10/31/21 08:47	11/01/21 18:23	1

Lab Sample ID: LCS 460-810497/2-A

Matrix: Solid

Analysis Batch: 810692

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	407		ug/Kg		122	65 - 133
Aroclor 1016	333	389		ug/Kg		117	65 - 133
Aroclor 1260	333	424		ug/Kg		127	71 - 150
Aroclor 1260	333	419		ug/Kg		126	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	105		37 - 150
DCB Decachlorobiphenyl	113		37 - 150
Tetrachloro-m-xylene	99		54 - 150
Tetrachloro-m-xylene	99		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-810497/3-A

Matrix: Solid

Analysis Batch: 810692

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	403		ug/Kg		121	65 - 133	1	30
Aroclor 1016	333	385		ug/Kg		115	65 - 133	1	30
Aroclor 1260	333	415		ug/Kg		125	71 - 150	2	30
Aroclor 1260	333	415		ug/Kg		124	71 - 150	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	103		37 - 150
DCB Decachlorobiphenyl	110		37 - 150
Tetrachloro-m-xylene	98		54 - 150
Tetrachloro-m-xylene	97		54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-810973/1-A

Matrix: Solid

Analysis Batch: 811030

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810973

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		11/02/21 21:40	11/03/21 10:22	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		11/02/21 21:40	11/03/21 10:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	119		65 - 150	11/02/21 21:40	11/03/21 10:22	1
2,4-Dichlorophenylacetic acid	121		65 - 150	11/02/21 21:40	11/03/21 10:22	1

Lab Sample ID: LCS 460-810973/2-A

Matrix: Solid

Analysis Batch: 811030

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810973

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	8.33	10.4	J	ug/Kg		124	58 - 150
Silvex (2,4,5-TP)	8.33	11.8	J	ug/Kg		142	58 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	90		65 - 150
2,4-Dichlorophenylacetic acid	89		65 - 150

Lab Sample ID: LCSD 460-810973/3-A

Matrix: Solid

Analysis Batch: 811030

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810973

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	8.33	10.8	J	ug/Kg		129	58 - 150	4	30
Silvex (2,4,5-TP)	8.33	12.3	J	ug/Kg		148	58 - 150	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	84		65 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 460-810973/3-A

Matrix: Solid

Analysis Batch: 811030

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810973

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	83		65 - 150

Lab Sample ID: 460-246010-1 MS

Matrix: Solid

Analysis Batch: 811030

Client Sample ID: 097_PE-2

Prep Type: Total/NA

Prep Batch: 810973

	Sample	Sample	Spike	MS	MS					
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silvex (2,4,5-TP)	38	U	9.39	10.6	J p	ug/Kg	⊛	113	58 - 150	
Silvex (2,4,5-TP)	38	U	9.39	26.5	J *	ug/Kg	⊛	283	58 - 150	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
2,4-Dichlorophenylacetic acid	122		65 - 150							
2,4-Dichlorophenylacetic acid	114		65 - 150							

Lab Sample ID: 460-246010-1 MSD

Matrix: Solid

Analysis Batch: 811030

Client Sample ID: 097_PE-2

Prep Type: Total/NA

Prep Batch: 810973

	Sample	Sample	Spike	MSD	MSD						
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silvex (2,4,5-TP)	38	U	9.39	13.7	J p	ug/Kg	⊛	146	58 - 150	26	30
Silvex (2,4,5-TP)	38	U	9.39	22.8	J *	ug/Kg	⊛	243	58 - 150	15	30
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
2,4-Dichlorophenylacetic acid	130		65 - 150								
2,4-Dichlorophenylacetic acid	123		65 - 150								

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-190726/1-B

Matrix: Solid

Analysis Batch: 191250

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 190726

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1	

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-190726/1-B

Matrix: Solid

Analysis Batch: 191250

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 190726

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		11/04/21 09:15	11/05/21 23:58	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		11/04/21 09:15	11/05/21 23:58	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		11/04/21 09:15	11/05/21 23:58	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 09:15	11/05/21 23:58	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	91		10 - 178	11/04/21 09:15	11/05/21 23:58	1
M2-6:2 FTS	82		10 - 182	11/04/21 09:15	11/05/21 23:58	1
13C5 PFHxA	87		11 - 138	11/04/21 09:15	11/05/21 23:58	1
13C4 PFHpA	83		15 - 139	11/04/21 09:15	11/05/21 23:58	1
13C8 PFOA	86		21 - 133	11/04/21 09:15	11/05/21 23:58	1
13C9 PFNA	87		15 - 145	11/04/21 09:15	11/05/21 23:58	1
13C6 PFDA	82		21 - 134	11/04/21 09:15	11/05/21 23:58	1
13C7 PFUnA	84		15 - 138	11/04/21 09:15	11/05/21 23:58	1
13C2-PFDoDA	83		28 - 126	11/04/21 09:15	11/05/21 23:58	1
13C2 PFTeDA	82		10 - 138	11/04/21 09:15	11/05/21 23:58	1
13C3 PFBS	94		23 - 130	11/04/21 09:15	11/05/21 23:58	1
13C3 PFHxS	91		24 - 136	11/04/21 09:15	11/05/21 23:58	1
13C8 PFOS	89		31 - 130	11/04/21 09:15	11/05/21 23:58	1
d3-NMeFOSAA	70		10 - 172	11/04/21 09:15	11/05/21 23:58	1
d5-NEtFOSAA	84		10 - 176	11/04/21 09:15	11/05/21 23:58	1
13C8 FOSA	86		25 - 135	11/04/21 09:15	11/05/21 23:58	1
13C4 PFBA	88		12 - 137	11/04/21 09:15	11/05/21 23:58	1
13C5 PFPeA	94		12 - 135	11/04/21 09:15	11/05/21 23:58	1

Lab Sample ID: LCS 410-190726/2-B

Matrix: Solid

Analysis Batch: 191250

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 190726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorohexanoic acid	25.0	24.53		ug/Kg		98	61 - 147
Perfluoroheptanoic acid	25.0	27.23		ug/Kg		109	61 - 151
Perfluorooctanoic acid	25.0	27.86		ug/Kg		111	62 - 144
Perfluorononanoic acid	25.0	27.63		ug/Kg		111	62 - 148
Perfluorodecanoic acid	25.0	26.45		ug/Kg		106	62 - 142
Perfluorotridecanoic acid	25.0	28.31		ug/Kg		113	57 - 152
Perfluorotetradecanoic acid	25.0	26.40		ug/Kg		106	60 - 147
Perfluorobutanesulfonic acid	22.1	23.00		ug/Kg		104	62 - 137
Perfluorohexanesulfonic acid	22.8	23.05		ug/Kg		101	57 - 135
Perfluorooctanesulfonic acid	23.1	25.63		ug/Kg		111	48 - 134
NEtFOSAA	25.0	24.78		ug/Kg		99	50 - 140
NMeFOSAA	25.0	28.51		ug/Kg		114	53 - 149
Perfluoroheptanesulfonic acid	23.8	24.58		ug/Kg		103	67 - 138
Perfluorodecanesulfonic acid	24.1	29.62		ug/Kg		123	60 - 142
Perfluorooctanesulfonamide	25.0	28.02		ug/Kg		112	52 - 132
Perfluorobutanoic acid	25.0	26.82		ug/Kg		107	50 - 185
Perfluoroundecanoic acid	25.0	29.96		ug/Kg		120	62 - 144

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-190726/2-B

Matrix: Solid

Analysis Batch: 191250

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 190726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorododecanoic acid	25.0	26.79		ug/Kg		107	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	26.14		ug/Kg		110	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	26.40		ug/Kg		110	50 - 147
Perfluoropentanoic acid	25.0	29.09		ug/Kg		116	69 - 144

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-8:2 FTS	95		10 - 178
M2-6:2 FTS	79		10 - 182
13C5 PFHxA	89		11 - 138
13C4 PFHpA	86		15 - 139
13C8 PFOA	86		21 - 133
13C9 PFNA	90		15 - 145
13C6 PFDA	88		21 - 134
13C7 PFUnA	89		15 - 138
13C2-PFDoDA	95		28 - 126
13C2 PFTeDA	93		10 - 138
13C3 PFBS	94		23 - 130
13C3 PFHxS	95		24 - 136
13C8 PFOS	91		31 - 130
d3-NMeFOSAA	78		10 - 172
d5-NEtFOSAA	94		10 - 176
13C8 FOSA	96		25 - 135
13C4 PFBA	87		12 - 137
13C5 PFPeA	92		12 - 135

Lab Sample ID: LCSD 410-190726/3-B

Matrix: Solid

Analysis Batch: 191250

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 190726

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	25.0	25.41		ug/Kg		102	61 - 147	3	30
Perfluoroheptanoic acid	25.0	28.17		ug/Kg		113	61 - 151	3	30
Perfluorooctanoic acid	25.0	28.27		ug/Kg		113	62 - 144	1	30
Perfluorononanoic acid	25.0	27.23		ug/Kg		109	62 - 148	1	30
Perfluorodecanoic acid	25.0	25.54		ug/Kg		102	62 - 142	3	30
Perfluorotridecanoic acid	25.0	29.56		ug/Kg		118	57 - 152	4	30
Perfluorotetradecanoic acid	25.0	26.96		ug/Kg		108	60 - 147	2	30
Perfluorobutanesulfonic acid	22.1	23.32		ug/Kg		105	62 - 137	1	30
Perfluorohexanesulfonic acid	22.8	23.11		ug/Kg		101	57 - 135	0	30
Perfluorooctanesulfonic acid	23.1	25.16		ug/Kg		109	48 - 134	2	30
NEtFOSAA	25.0	24.94		ug/Kg		100	50 - 140	1	30
NMeFOSAA	25.0	27.89		ug/Kg		112	53 - 149	2	30
Perfluoroheptanesulfonic acid	23.8	24.38		ug/Kg		102	67 - 138	1	30
Perfluorodecanesulfonic acid	24.1	30.58		ug/Kg		127	60 - 142	3	30
Perfluorooctanesulfonamide	25.0	28.64		ug/Kg		115	52 - 132	2	30
Perfluorobutanoic acid	25.0	26.51		ug/Kg		106	50 - 185	1	30
Perfluoroundecanoic acid	25.0	30.89		ug/Kg		124	62 - 144	3	30
Perfluorododecanoic acid	25.0	28.21		ug/Kg		113	60 - 147	5	30
6:2 Fluorotelomer sulfonic acid	23.7	23.79		ug/Kg		100	53 - 137	9	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-190726/3-B

Matrix: Solid

Analysis Batch: 191250

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 190726

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
8:2 Fluorotelomer sulfonic acid	24.0	24.58		ug/Kg		103	50 - 147	7	30
Perfluoropentanoic acid	25.0	28.68		ug/Kg		115	69 - 144	1	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
M2-8:2 FTS	98		10 - 178
M2-6:2 FTS	84		10 - 182
13C5 PFHxA	87		11 - 138
13C4 PFHpA	87		15 - 139
13C8 PFOA	82		21 - 133
13C9 PFNA	86		15 - 145
13C6 PFDA	93		21 - 134
13C7 PFUnA	88		15 - 138
13C2-PFDoDA	93		28 - 126
13C2 PFTeDA	91		10 - 138
13C3 PFBS	94		23 - 130
13C3 PFHxS	95		24 - 136
13C8 PFOS	86		31 - 130
d3-NMeFOSAA	81		10 - 172
d5-NEtFOSAA	97		10 - 176
13C8 FOSA	96		25 - 135
13C4 PFBA	87		12 - 137
13C5 PFPeA	92		12 - 135

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-811008/1-A

Matrix: Solid

Analysis Batch: 811334

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811008

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Barium	2.0	U	2.0	0.15	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Chromium	2.0	U	2.0	0.27	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Copper	2.0	U	2.0	0.37	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Manganese	4.0	U	4.0	0.40	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Nickel	2.0	U	2.0	0.47	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Lead	0.60	U	0.60	0.20	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Selenium	1.3	U	1.3	0.13	mg/Kg		11/03/21 03:39	11/04/21 13:08	1
Zinc	8.0	U	8.0	3.1	mg/Kg		11/03/21 03:39	11/04/21 13:08	1

Lab Sample ID: LCSSRM 460-811008/2-A ^5

Matrix: Solid

Analysis Batch: 811334

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811008

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	21.21		mg/Kg		63.1	48.2 - 73.5

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-811008/2-A ^5

Matrix: Solid

Analysis Batch: 811334

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811008

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	140	148.7		mg/Kg		106.2	82.9 - 117.9
Barium	202	209.1		mg/Kg		103.5	81.2 - 118.3
Beryllium	42.6	45.57		mg/Kg		107.0	81.0 - 119.0
Cadmium	97.9	103.2		mg/Kg		105.5	80.0 - 119.5
Chromium	60.4	61.83		mg/Kg		102.4	80.3 - 119.7
Copper	122	127.8		mg/Kg		104.8	82.8 - 117.2
Manganese	457	471.6		mg/Kg		103.2	79.6 - 120.6
Nickel	151	160.1		mg/Kg		106.0	79.5 - 121.2
Lead	56.7	64.56		mg/Kg		113.9	82.9 - 116.9
Selenium	35.5	39.57		mg/Kg		111.5	77.5 - 122.3
Zinc	186	186.9		mg/Kg		100.5	79.0 - 121.0

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-811009/1-A

Matrix: Solid

Analysis Batch: 811102

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		11/03/21 03:42	11/03/21 08:21	1

Lab Sample ID: LCSSRM 460-811009/2-A ^40

Matrix: Solid

Analysis Batch: 811102

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811009

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	16.68		mg/Kg		101.1	74.5 - 124.8

Lab Sample ID: MB 460-811011/1-A

Matrix: Solid

Analysis Batch: 811102

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811011

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		11/03/21 03:56	11/03/21 10:24	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 460-811011/2-A ^40
Matrix: Solid
Analysis Batch: 811102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 811011

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	17.04		mg/Kg		103.3	74.5 - 124.8

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-810501/1-A
Matrix: Solid
Analysis Batch: 810681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 810501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		10/31/21 08:54	11/01/21 13:15	1

Lab Sample ID: LCSi 460-810501/3-A
Matrix: Solid
Analysis Batch: 810681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 810501

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	681.9		mg/Kg		96	80 - 120

Lab Sample ID: LCSSRM 460-810501/2-A
Matrix: Solid
Analysis Batch: 810681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 810501

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	12.3	12.14		mg/Kg		98.4	84.0 - 114.6

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-810944/1-A
Matrix: Solid
Analysis Batch: 811215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 810944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		11/02/21 18:11	11/03/21 20:59	1

Lab Sample ID: LCSSRM 460-810944/2-A ^20
Matrix: Solid
Analysis Batch: 811215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 810944

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	95.3	63.36		mg/Kg		66.5	23.7 - 123.8

Lab Sample ID: 460-246010-1 MS
Matrix: Solid
Analysis Batch: 811215

Client Sample ID: 097_PE-2
Prep Type: Total/NA
Prep Batch: 810944

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.24	U	5.01	4.98		mg/Kg	✱	99	11 - 108

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 460-246010-1 MSD

Matrix: Solid

Analysis Batch: 811215

Client Sample ID: 097_PE-2

Prep Type: Total/NA

Prep Batch: 810944

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.24	U	5.01	5.76	N	mg/Kg	☆	115	11 - 108	14	40

Lab Sample ID: MRL 460-811200/1-A

Matrix: Solid

Analysis Batch: 811215

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811200

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0100	0.0109		mg/L		109	50 - 150		

Method: Moisture - Percent Moisture

Lab Sample ID: 460-246010-9 DU

Matrix: Solid

Analysis Batch: 810569

Client Sample ID: 105_PE-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	17.4		17.4		%		0	20
Percent Solids	82.6		82.6		%		0	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

GC/MS VOA

Prep Batch: 810209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	5035	
460-246010-2	098_PE-3	Total/NA	Solid	5035	
460-246010-3	099_PE-5	Total/NA	Solid	5035	
460-246010-4	100_PE-8	Total/NA	Solid	5035	
460-246010-5	101_PE-7	Total/NA	Solid	5035	
460-246010-6	102_PE-14	Total/NA	Solid	5035	
460-246010-7	103_PE-15	Total/NA	Solid	5035	
460-246010-8	104_PE-9	Total/NA	Solid	5035	
460-246010-9	105_PE-16	Total/NA	Solid	5035	
460-246010-10	106_PE-18	Total/NA	Solid	5035	

Analysis Batch: 810451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-11	107_TB-6	Total/NA	Water	8260D	
MB 460-810451/7	Method Blank	Total/NA	Water	8260D	
LCS 460-810451/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-810451/4	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 810773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	8260D	810209
460-246010-2	098_PE-3	Total/NA	Solid	8260D	810209
460-246010-3	099_PE-5	Total/NA	Solid	8260D	810209
460-246010-4	100_PE-8	Total/NA	Solid	8260D	810209
460-246010-5	101_PE-7	Total/NA	Solid	8260D	810209
460-246010-6	102_PE-14	Total/NA	Solid	8260D	810209
MB 460-810773/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-810773/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-810773/4	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 810922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-7	103_PE-15	Total/NA	Solid	8260D	810209
460-246010-9	105_PE-16	Total/NA	Solid	8260D	810209
MB 460-810922/9	Method Blank	Total/NA	Solid	8260D	
LCS 460-810922/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-810922/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 811047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-8	104_PE-9	Total/NA	Solid	8260D	810209
460-246010-10	106_PE-18	Total/NA	Solid	8260D	810209
MB 460-811047/11	Method Blank	Total/NA	Solid	8260D	
LCS 460-811047/5	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-811047/6	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 810127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

GC/MS Semi VOA (Continued)

Prep Batch: 810127 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-2	098_PE-3	Total/NA	Solid	3546	
460-246010-3	099_PE-5	Total/NA	Solid	3546	
460-246010-4	100_PE-8	Total/NA	Solid	3546	
460-246010-5	101_PE-7	Total/NA	Solid	3546	
460-246010-6	102_PE-14	Total/NA	Solid	3546	
460-246010-7	103_PE-15	Total/NA	Solid	3546	
460-246010-7 - DL	103_PE-15	Total/NA	Solid	3546	
460-246010-8	104_PE-9	Total/NA	Solid	3546	
460-246010-9	105_PE-16	Total/NA	Solid	3546	
460-246010-9 - DL	105_PE-16	Total/NA	Solid	3546	
460-246010-10	106_PE-18	Total/NA	Solid	3546	
MB 460-810127/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-810127/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-810127/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 810252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-2	098_PE-3	Total/NA	Solid	8270E	810127
460-246010-5	101_PE-7	Total/NA	Solid	8270E	810127
460-246010-6	102_PE-14	Total/NA	Solid	8270E	810127
460-246010-7	103_PE-15	Total/NA	Solid	8270E	810127
460-246010-9	105_PE-16	Total/NA	Solid	8270E	810127

Analysis Batch: 810255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-4	100_PE-8	Total/NA	Solid	8270E	810127

Analysis Batch: 810280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	8270E	810127
460-246010-3	099_PE-5	Total/NA	Solid	8270E	810127
460-246010-8	104_PE-9	Total/NA	Solid	8270E	810127
460-246010-10	106_PE-18	Total/NA	Solid	8270E	810127
MB 460-810127/1-A	Method Blank	Total/NA	Solid	8270E	810127
LCS 460-810127/2-A	Lab Control Sample	Total/NA	Solid	8270E	810127
LCSD 460-810127/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	810127

Analysis Batch: 810400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-7 - DL	103_PE-15	Total/NA	Solid	8270E	810127
460-246010-9 - DL	105_PE-16	Total/NA	Solid	8270E	810127

GC Semi VOA

Prep Batch: 810497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	3546	
460-246010-2	098_PE-3	Total/NA	Solid	3546	
460-246010-3	099_PE-5	Total/NA	Solid	3546	
460-246010-4	100_PE-8	Total/NA	Solid	3546	
460-246010-5	101_PE-7	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

GC Semi VOA (Continued)

Prep Batch: 810497 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-6	102_PE-14	Total/NA	Solid	3546	
460-246010-7	103_PE-15	Total/NA	Solid	3546	
460-246010-8	104_PE-9	Total/NA	Solid	3546	
460-246010-9	105_PE-16	Total/NA	Solid	3546	
460-246010-10	106_PE-18	Total/NA	Solid	3546	
MB 460-810497/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-810497/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-810497/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 810503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	3546	
460-246010-2	098_PE-3	Total/NA	Solid	3546	
460-246010-3	099_PE-5	Total/NA	Solid	3546	
460-246010-4	100_PE-8	Total/NA	Solid	3546	
460-246010-5	101_PE-7	Total/NA	Solid	3546	
460-246010-6	102_PE-14	Total/NA	Solid	3546	
460-246010-7	103_PE-15	Total/NA	Solid	3546	
460-246010-8	104_PE-9	Total/NA	Solid	3546	
460-246010-9	105_PE-16	Total/NA	Solid	3546	
460-246010-10	106_PE-18	Total/NA	Solid	3546	
MB 460-810503/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-810503/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-810503/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246010-1 MS	097_PE-2	Total/NA	Solid	3546	
460-246010-1 MSD	097_PE-2	Total/NA	Solid	3546	

Analysis Batch: 810578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	8081B	810503
460-246010-2	098_PE-3	Total/NA	Solid	8081B	810503
460-246010-3	099_PE-5	Total/NA	Solid	8081B	810503
460-246010-4	100_PE-8	Total/NA	Solid	8081B	810503
460-246010-5	101_PE-7	Total/NA	Solid	8081B	810503
460-246010-6	102_PE-14	Total/NA	Solid	8081B	810503
460-246010-7	103_PE-15	Total/NA	Solid	8081B	810503
MB 460-810503/1-A	Method Blank	Total/NA	Solid	8081B	810503
LCS 460-810503/2-A	Lab Control Sample	Total/NA	Solid	8081B	810503
LCSD 460-810503/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	810503
460-246010-1 MS	097_PE-2	Total/NA	Solid	8081B	810503
460-246010-1 MSD	097_PE-2	Total/NA	Solid	8081B	810503

Analysis Batch: 810692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	8082A	810497
460-246010-2	098_PE-3	Total/NA	Solid	8082A	810497
460-246010-3	099_PE-5	Total/NA	Solid	8082A	810497
460-246010-4	100_PE-8	Total/NA	Solid	8082A	810497
MB 460-810497/1-A	Method Blank	Total/NA	Solid	8082A	810497
LCS 460-810497/2-A	Lab Control Sample	Total/NA	Solid	8082A	810497
LCSD 460-810497/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	810497

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

GC Semi VOA

Analysis Batch: 810767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-8	104_PE-9	Total/NA	Solid	8081B	810503
460-246010-9	105_PE-16	Total/NA	Solid	8081B	810503
460-246010-10	106_PE-18	Total/NA	Solid	8081B	810503

Analysis Batch: 810811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-6	102_PE-14	Total/NA	Solid	8082A	810497
460-246010-7	103_PE-15	Total/NA	Solid	8082A	810497
460-246010-8	104_PE-9	Total/NA	Solid	8082A	810497
460-246010-9	105_PE-16	Total/NA	Solid	8082A	810497
460-246010-10	106_PE-18	Total/NA	Solid	8082A	810497

Prep Batch: 810973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	8151A	
460-246010-2	098_PE-3	Total/NA	Solid	8151A	
460-246010-3	099_PE-5	Total/NA	Solid	8151A	
460-246010-4	100_PE-8	Total/NA	Solid	8151A	
460-246010-5	101_PE-7	Total/NA	Solid	8151A	
460-246010-6	102_PE-14	Total/NA	Solid	8151A	
460-246010-7	103_PE-15	Total/NA	Solid	8151A	
460-246010-8	104_PE-9	Total/NA	Solid	8151A	
460-246010-9	105_PE-16	Total/NA	Solid	8151A	
460-246010-10	106_PE-18	Total/NA	Solid	8151A	
MB 460-810973/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-810973/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-810973/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-246010-1 MS	097_PE-2	Total/NA	Solid	8151A	
460-246010-1 MSD	097_PE-2	Total/NA	Solid	8151A	

Analysis Batch: 811030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	8151A	810973
460-246010-2	098_PE-3	Total/NA	Solid	8151A	810973
460-246010-3	099_PE-5	Total/NA	Solid	8151A	810973
460-246010-4	100_PE-8	Total/NA	Solid	8151A	810973
460-246010-5	101_PE-7	Total/NA	Solid	8151A	810973
460-246010-6	102_PE-14	Total/NA	Solid	8151A	810973
460-246010-7	103_PE-15	Total/NA	Solid	8151A	810973
460-246010-8	104_PE-9	Total/NA	Solid	8151A	810973
460-246010-9	105_PE-16	Total/NA	Solid	8151A	810973
460-246010-10	106_PE-18	Total/NA	Solid	8151A	810973
MB 460-810973/1-A	Method Blank	Total/NA	Solid	8151A	810973
LCS 460-810973/2-A	Lab Control Sample	Total/NA	Solid	8151A	810973
LCSD 460-810973/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	810973
460-246010-1 MS	097_PE-2	Total/NA	Solid	8151A	810973
460-246010-1 MSD	097_PE-2	Total/NA	Solid	8151A	810973

Analysis Batch: 811061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-5	101_PE-7	Total/NA	Solid	8082A	810497

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

LCMS

Prep Batch: 190726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	SHAKE	
460-246010-2	098_PE-3	Total/NA	Solid	SHAKE	
460-246010-3	099_PE-5	Total/NA	Solid	SHAKE	
460-246010-4	100_PE-8	Total/NA	Solid	SHAKE	
460-246010-5	101_PE-7	Total/NA	Solid	SHAKE	
460-246010-6	102_PE-14	Total/NA	Solid	SHAKE	
460-246010-7	103_PE-15	Total/NA	Solid	SHAKE	
460-246010-8	104_PE-9	Total/NA	Solid	SHAKE	
460-246010-9	105_PE-16	Total/NA	Solid	SHAKE	
460-246010-10	106_PE-18	Total/NA	Solid	SHAKE	
MB 410-190726/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-190726/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
LCSD 410-190726/3-B	Lab Control Sample Dup	Total/NA	Solid	SHAKE	

Cleanup Batch: 190778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	Extract Aliquot	190726
460-246010-2	098_PE-3	Total/NA	Solid	Extract Aliquot	190726
460-246010-3	099_PE-5	Total/NA	Solid	Extract Aliquot	190726
460-246010-4	100_PE-8	Total/NA	Solid	Extract Aliquot	190726
460-246010-5	101_PE-7	Total/NA	Solid	Extract Aliquot	190726
460-246010-6	102_PE-14	Total/NA	Solid	Extract Aliquot	190726
460-246010-7	103_PE-15	Total/NA	Solid	Extract Aliquot	190726
460-246010-8	104_PE-9	Total/NA	Solid	Extract Aliquot	190726
460-246010-9	105_PE-16	Total/NA	Solid	Extract Aliquot	190726
460-246010-10	106_PE-18	Total/NA	Solid	Extract Aliquot	190726
MB 410-190726/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	190726
LCS 410-190726/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	190726
LCSD 410-190726/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	190726

Analysis Batch: 191250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	537 IDA	190778
460-246010-2	098_PE-3	Total/NA	Solid	537 IDA	190778
460-246010-3	099_PE-5	Total/NA	Solid	537 IDA	190778
460-246010-4	100_PE-8	Total/NA	Solid	537 IDA	190778
460-246010-5	101_PE-7	Total/NA	Solid	537 IDA	190778
460-246010-6	102_PE-14	Total/NA	Solid	537 IDA	190778
460-246010-7	103_PE-15	Total/NA	Solid	537 IDA	190778
460-246010-8	104_PE-9	Total/NA	Solid	537 IDA	190778
460-246010-9	105_PE-16	Total/NA	Solid	537 IDA	190778
460-246010-10	106_PE-18	Total/NA	Solid	537 IDA	190778
MB 410-190726/1-B	Method Blank	Total/NA	Solid	537 IDA	190778
LCS 410-190726/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	190778
LCSD 410-190726/3-B	Lab Control Sample Dup	Total/NA	Solid	537 IDA	190778

Metals

Prep Batch: 811008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	3050B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Metals (Continued)

Prep Batch: 811008 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-2	098_PE-3	Total/NA	Solid	3050B	
460-246010-3	099_PE-5	Total/NA	Solid	3050B	
460-246010-4	100_PE-8	Total/NA	Solid	3050B	
460-246010-5	101_PE-7	Total/NA	Solid	3050B	
460-246010-6	102_PE-14	Total/NA	Solid	3050B	
460-246010-7	103_PE-15	Total/NA	Solid	3050B	
460-246010-8	104_PE-9	Total/NA	Solid	3050B	
460-246010-9	105_PE-16	Total/NA	Solid	3050B	
460-246010-10	106_PE-18	Total/NA	Solid	3050B	
MB 460-811008/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-811008/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 811009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	7471B	
460-246010-2	098_PE-3	Total/NA	Solid	7471B	
460-246010-3	099_PE-5	Total/NA	Solid	7471B	
460-246010-4	100_PE-8	Total/NA	Solid	7471B	
460-246010-5	101_PE-7	Total/NA	Solid	7471B	
MB 460-811009/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-811009/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 811011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-6	102_PE-14	Total/NA	Solid	7471B	
460-246010-7	103_PE-15	Total/NA	Solid	7471B	
460-246010-8	104_PE-9	Total/NA	Solid	7471B	
460-246010-9	105_PE-16	Total/NA	Solid	7471B	
460-246010-10	106_PE-18	Total/NA	Solid	7471B	
MB 460-811011/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-811011/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 81102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	7471B	811009
460-246010-2	098_PE-3	Total/NA	Solid	7471B	811009
460-246010-3	099_PE-5	Total/NA	Solid	7471B	811009
460-246010-4	100_PE-8	Total/NA	Solid	7471B	811009
460-246010-5	101_PE-7	Total/NA	Solid	7471B	811009
460-246010-6	102_PE-14	Total/NA	Solid	7471B	811011
460-246010-7	103_PE-15	Total/NA	Solid	7471B	811011
460-246010-8	104_PE-9	Total/NA	Solid	7471B	811011
460-246010-9	105_PE-16	Total/NA	Solid	7471B	811011
460-246010-10	106_PE-18	Total/NA	Solid	7471B	811011
MB 460-811009/1-A	Method Blank	Total/NA	Solid	7471B	811009
MB 460-811011/1-A	Method Blank	Total/NA	Solid	7471B	811011
LCSSRM 460-811009/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	811009
LCSSRM 460-811011/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	811011

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Metals

Analysis Batch: 811334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	6020B	811008
460-246010-2	098_PE-3	Total/NA	Solid	6020B	811008
460-246010-3	099_PE-5	Total/NA	Solid	6020B	811008
460-246010-4	100_PE-8	Total/NA	Solid	6020B	811008
460-246010-5	101_PE-7	Total/NA	Solid	6020B	811008
460-246010-6	102_PE-14	Total/NA	Solid	6020B	811008
460-246010-7	103_PE-15	Total/NA	Solid	6020B	811008
460-246010-8	104_PE-9	Total/NA	Solid	6020B	811008
460-246010-9	105_PE-16	Total/NA	Solid	6020B	811008
460-246010-10	106_PE-18	Total/NA	Solid	6020B	811008
MB 460-811008/1-A	Method Blank	Total/NA	Solid	6020B	811008
LCSSRM 460-811008/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	811008

General Chemistry

Analysis Batch: 810073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	7196A	
460-246010-2	098_PE-3	Total/NA	Solid	7196A	
460-246010-3	099_PE-5	Total/NA	Solid	7196A	
460-246010-4	100_PE-8	Total/NA	Solid	7196A	
460-246010-5	101_PE-7	Total/NA	Solid	7196A	
460-246010-6	102_PE-14	Total/NA	Solid	7196A	
460-246010-7	103_PE-15	Total/NA	Solid	7196A	
460-246010-8	104_PE-9	Total/NA	Solid	7196A	
460-246010-9	105_PE-16	Total/NA	Solid	7196A	
460-246010-10	106_PE-18	Total/NA	Solid	7196A	

Prep Batch: 810501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	3060A	
460-246010-2	098_PE-3	Total/NA	Solid	3060A	
460-246010-3	099_PE-5	Total/NA	Solid	3060A	
460-246010-4	100_PE-8	Total/NA	Solid	3060A	
460-246010-5	101_PE-7	Total/NA	Solid	3060A	
460-246010-6	102_PE-14	Total/NA	Solid	3060A	
460-246010-7	103_PE-15	Total/NA	Solid	3060A	
460-246010-8	104_PE-9	Total/NA	Solid	3060A	
460-246010-9	105_PE-16	Total/NA	Solid	3060A	
460-246010-10	106_PE-18	Total/NA	Solid	3060A	
MB 460-810501/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-810501/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-810501/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 810569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	Moisture	
460-246010-2	098_PE-3	Total/NA	Solid	Moisture	
460-246010-3	099_PE-5	Total/NA	Solid	Moisture	
460-246010-5	101_PE-7	Total/NA	Solid	Moisture	
460-246010-6	102_PE-14	Total/NA	Solid	Moisture	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

General Chemistry (Continued)

Analysis Batch: 810569 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-7	103_PE-15	Total/NA	Solid	Moisture	
460-246010-8	104_PE-9	Total/NA	Solid	Moisture	
460-246010-9	105_PE-16	Total/NA	Solid	Moisture	
460-246010-9 DU	105_PE-16	Total/NA	Solid	Moisture	

Analysis Batch: 810681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	7196A	810501
460-246010-2	098_PE-3	Total/NA	Solid	7196A	810501
460-246010-3	099_PE-5	Total/NA	Solid	7196A	810501
460-246010-4	100_PE-8	Total/NA	Solid	7196A	810501
460-246010-5	101_PE-7	Total/NA	Solid	7196A	810501
460-246010-6	102_PE-14	Total/NA	Solid	7196A	810501
460-246010-7	103_PE-15	Total/NA	Solid	7196A	810501
460-246010-8	104_PE-9	Total/NA	Solid	7196A	810501
460-246010-9	105_PE-16	Total/NA	Solid	7196A	810501
460-246010-10	106_PE-18	Total/NA	Solid	7196A	810501
MB 460-810501/1-A	Method Blank	Total/NA	Solid	7196A	810501
LCSI 460-810501/3-A	Lab Control Sample	Total/NA	Solid	7196A	810501
LCSSRM 460-810501/2-A	Lab Control Sample	Total/NA	Solid	7196A	810501

Analysis Batch: 810746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-4	100_PE-8	Total/NA	Solid	Moisture	
460-246010-10	106_PE-18	Total/NA	Solid	Moisture	

Prep Batch: 810944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	9012B	
460-246010-2	098_PE-3	Total/NA	Solid	9012B	
460-246010-3	099_PE-5	Total/NA	Solid	9012B	
460-246010-4	100_PE-8	Total/NA	Solid	9012B	
460-246010-5	101_PE-7	Total/NA	Solid	9012B	
460-246010-6	102_PE-14	Total/NA	Solid	9012B	
460-246010-7	103_PE-15	Total/NA	Solid	9012B	
460-246010-8	104_PE-9	Total/NA	Solid	9012B	
460-246010-9	105_PE-16	Total/NA	Solid	9012B	
460-246010-10	106_PE-18	Total/NA	Solid	9012B	
MB 460-810944/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-810944/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-246010-1 MS	097_PE-2	Total/NA	Solid	9012B	
460-246010-1 MSD	097_PE-2	Total/NA	Solid	9012B	

Prep Batch: 811200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-811200/1-A	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 811215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-1	097_PE-2	Total/NA	Solid	9012B	810944
460-246010-2	098_PE-3	Total/NA	Solid	9012B	810944

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

General Chemistry (Continued)

Analysis Batch: 811215 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246010-3	099_PE-5	Total/NA	Solid	9012B	810944
460-246010-4	100_PE-8	Total/NA	Solid	9012B	810944
460-246010-5	101_PE-7	Total/NA	Solid	9012B	810944
460-246010-6	102_PE-14	Total/NA	Solid	9012B	810944
460-246010-7	103_PE-15	Total/NA	Solid	9012B	810944
460-246010-8	104_PE-9	Total/NA	Solid	9012B	810944
460-246010-9	105_PE-16	Total/NA	Solid	9012B	810944
460-246010-10	106_PE-18	Total/NA	Solid	9012B	810944
MB 460-810944/1-A	Method Blank	Total/NA	Solid	9012B	810944
LCSSRM 460-810944/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	810944
MRL 460-811200/1-A	Lab Control Sample	Total/NA	Solid	9012B	811200
460-246010-1 MS	097_PE-2	Total/NA	Solid	9012B	810944
460-246010-1 MSD	097_PE-2	Total/NA	Solid	9012B	810944

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 097_PE-2

Date Collected: 10/27/21 12:10

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810569	11/01/21 00:24	MIE	TAL EDI

Client Sample ID: 097_PE-2

Date Collected: 10/27/21 12:10

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-1

Matrix: Solid

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:54	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810773	11/02/21 10:48	AAT	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810280	10/30/21 05:17	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810578	11/01/21 13:20	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810692	11/01/21 19:13	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 11:30	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 00:42	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 13:15	MDC	TAL EDI
Total/NA	Prep	7471B			811009	11/03/21 03:42	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811102	11/03/21 09:03	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 13:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:01	VBG	TAL EDI

Client Sample ID: 098_PE-3

Date Collected: 10/27/21 12:20

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810569	11/01/21 00:24	MIE	TAL EDI

Client Sample ID: 098_PE-3

Date Collected: 10/27/21 12:20

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-2

Matrix: Solid

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:54	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810773	11/02/21 11:10	AAT	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 098_PE-3

Lab Sample ID: 460-246010-2

Date Collected: 10/27/21 12:20

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810252	10/30/21 05:54	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810578	11/01/21 13:36	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810692	11/01/21 20:03	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 11:43	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 00:53	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 16:44	MDC	TAL EDI
Total/NA	Prep	7471B			811009	11/03/21 03:42	TJS	TAL EDI
Total/NA	Analysis	7471B		3	811102	11/03/21 10:17	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:07	VBG	TAL EDI

Client Sample ID: 099_PE-5

Lab Sample ID: 460-246010-3

Date Collected: 10/27/21 12:40

Matrix: Solid

Date Received: 10/27/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810569	11/01/21 00:24	MIE	TAL EDI

Client Sample ID: 099_PE-5

Lab Sample ID: 460-246010-3

Date Collected: 10/27/21 12:40

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:55	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810773	11/02/21 11:32	AAT	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810280	10/30/21 05:34	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810578	11/01/21 13:52	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810692	11/01/21 20:19	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 11:57	SAK	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 099_PE-5

Date Collected: 10/27/21 12:40

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-3

Matrix: Solid

Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 01:04	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 17:37	MDC	TAL EDI
Total/NA	Prep	7471B			811009	11/03/21 03:42	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811102	11/03/21 10:19	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:08	VBG	TAL EDI

Client Sample ID: 100_PE-8

Date Collected: 10/27/21 12:50

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810746	11/02/21 01:21	MIE	TAL EDI

Client Sample ID: 100_PE-8

Date Collected: 10/27/21 12:50

Date Received: 10/27/21 19:30

Lab Sample ID: 460-246010-4

Matrix: Solid

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:55	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810773	11/02/21 11:54	AAT	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810255	10/30/21 06:08	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810578	11/01/21 14:08	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810692	11/01/21 20:36	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 12:10	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 01:16	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 17:39	MDC	TAL EDI
Total/NA	Prep	7471B			811009	11/03/21 03:42	TJS	TAL EDI
Total/NA	Analysis	7471B		5	811102	11/03/21 10:20	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 100_PE-8

Lab Sample ID: 460-246010-4

Date Collected: 10/27/21 12:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:09	VBG	TAL EDI

Client Sample ID: 101_PE-7

Lab Sample ID: 460-246010-5

Date Collected: 10/27/21 13:00

Matrix: Solid

Date Received: 10/27/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810569	11/01/21 00:24	MIE	TAL EDI

Client Sample ID: 101_PE-7

Lab Sample ID: 460-246010-5

Date Collected: 10/27/21 13:00

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:56	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810773	11/02/21 18:30	AAT	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810252	10/30/21 04:22	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810578	11/01/21 14:24	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	811061	11/03/21 09:49	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 12:24	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 01:27	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 17:42	MDC	TAL EDI
Total/NA	Prep	7471B			811009	11/03/21 03:42	TJS	TAL EDI
Total/NA	Analysis	7471B		5	811102	11/03/21 10:22	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:10	VBG	TAL EDI

Client Sample ID: 102_PE-14

Lab Sample ID: 460-246010-6

Date Collected: 10/27/21 13:25

Matrix: Solid

Date Received: 10/27/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810569	11/01/21 00:24	MIE	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 102_PE-14

Lab Sample ID: 460-246010-6

Date Collected: 10/27/21 13:25

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:56	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810773	11/02/21 13:44	AAT	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810252	10/30/21 04:46	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810578	11/01/21 14:40	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 17:22	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 12:37	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 01:38	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 17:44	MDC	TAL EDI
Total/NA	Prep	7471B			811011	11/03/21 03:56	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811102	11/03/21 09:34	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:10	VBG	TAL EDI

Client Sample ID: 103_PE-15

Lab Sample ID: 460-246010-7

Date Collected: 10/27/21 13:35

Matrix: Solid

Date Received: 10/27/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810569	11/01/21 00:24	MIE	TAL EDI

Client Sample ID: 103_PE-15

Lab Sample ID: 460-246010-7

Date Collected: 10/27/21 13:35

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:57	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810922	11/02/21 23:10	VBP	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810252	10/30/21 05:09	YAH	TAL EDI
Total/NA	Prep	3546	DL		810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E	DL	2	810400	10/30/21 22:53	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810578	11/01/21 14:56	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 17:00	JHP	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 103_PE-15

Lab Sample ID: 460-246010-7

Date Collected: 10/27/21 13:35

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 12:51	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 01:49	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 17:46	MDC	TAL EDI
Total/NA	Prep	7471B			811011	11/03/21 03:56	TJS	TAL EDI
Total/NA	Analysis	7471B		3	811102	11/03/21 10:29	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:11	VBG	TAL EDI

Client Sample ID: 104_PE-9

Lab Sample ID: 460-246010-8

Date Collected: 10/27/21 13:50

Matrix: Solid

Date Received: 10/27/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810569	11/01/21 00:24	MIE	TAL EDI

Client Sample ID: 104_PE-9

Lab Sample ID: 460-246010-8

Date Collected: 10/27/21 13:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:58	YXG	TAL EDI
Total/NA	Analysis	8260D		1	811047	11/03/21 13:28	EMM	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810280	10/30/21 05:51	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810767	11/02/21 09:19	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 16:38	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 13:04	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 02:00	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 17:10	MDC	TAL EDI
Total/NA	Prep	7471B			811011	11/03/21 03:56	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811102	11/03/21 10:31	TJS	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 104_PE-9

Lab Sample ID: 460-246010-8

Date Collected: 10/27/21 13:50

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:12	VBG	TAL EDI

Client Sample ID: 105_PE-16

Lab Sample ID: 460-246010-9

Date Collected: 10/27/21 14:05

Matrix: Solid

Date Received: 10/27/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810569	11/01/21 00:24	MIE	TAL EDI

Client Sample ID: 105_PE-16

Lab Sample ID: 460-246010-9

Date Collected: 10/27/21 14:05

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:58	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810922	11/02/21 23:55	VBP	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810252	10/30/21 05:32	YAH	TAL EDI
Total/NA	Prep	3546	DL		810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E	DL	5	810400	10/30/21 23:10	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810767	11/02/21 09:35	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 16:16	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 13:18	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 02:11	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 03:39	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 17:12	MDC	TAL EDI
Total/NA	Prep	7471B			811011	11/03/21 03:56	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811102	11/03/21 09:39	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:13	VBG	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Client Sample ID: 106_PE-18

Lab Sample ID: 460-246010-10

Date Collected: 10/27/21 14:15

Matrix: Solid

Date Received: 10/27/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810746	11/02/21 01:21	MIE	TAL EDI

Client Sample ID: 106_PE-18

Lab Sample ID: 460-246010-10

Date Collected: 10/27/21 14:15

Matrix: Solid

Date Received: 10/27/21 19:30

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 14:59	YXG	TAL EDI
Total/NA	Analysis	8260D		1	811047	11/03/21 13:50	EMM	TAL EDI
Total/NA	Prep	3546			810127	10/29/21 10:03	OTS	TAL EDI
Total/NA	Analysis	8270E		1	810280	10/30/21 06:08	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810767	11/02/21 09:50	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 15:54	JHP	TAL EDI
Total/NA	Prep	8151A			810973	11/02/21 21:40	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811030	11/03/21 13:31	SAK	TAL EDI
Total/NA	Prep	SHAKE			190726	11/04/21 09:15	PR5J	ELLE
Total/NA	Cleanup	Extract Aliquot			190778	11/04/21 10:35	PR5J	ELLE
Total/NA	Analysis	537 IDA		1	191250	11/06/21 02:22	ZG8V	ELLE
Total/NA	Prep	3050B			811008	11/03/21 04:04	GMC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 17:14	MDC	TAL EDI
Total/NA	Prep	7471B			811011	11/03/21 03:56	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811102	11/03/21 09:41	TJS	TAL EDI
Total/NA	Prep	3060A			810501	10/31/21 08:54	VBG	TAL EDI
Total/NA	Analysis	7196A		1	810681	11/01/21 14:15	RAK	TAL EDI
Total/NA	Prep	9012B			810944	11/02/21 18:11	OXG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 21:14	VBG	TAL EDI

Client Sample ID: 107_TB-6

Lab Sample ID: 460-246010-11

Date Collected: 10/27/21 00:00

Matrix: Water

Date Received: 10/27/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	810451	10/31/21 10:33	SZD	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	12-09-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-10-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	11-08-21
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-10-22
Minnesota	NELAP	042-999-487	01-05-22
Missouri	State	450	11-09-21
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	11-10-21
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-10-22
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-31-22
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	11-14-21
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	12-20-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246010-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-246010-1	097_PE-2	Solid	10/27/21 12:10	10/27/21 19:30
460-246010-2	098_PE-3	Solid	10/27/21 12:20	10/27/21 19:30
460-246010-3	099_PE-5	Solid	10/27/21 12:40	10/27/21 19:30
460-246010-4	100_PE-8	Solid	10/27/21 12:50	10/27/21 19:30
460-246010-5	101_PE-7	Solid	10/27/21 13:00	10/27/21 19:30
460-246010-6	102_PE-14	Solid	10/27/21 13:25	10/27/21 19:30
460-246010-7	103_PE-15	Solid	10/27/21 13:35	10/27/21 19:30
460-246010-8	104_PE-9	Solid	10/27/21 13:50	10/27/21 19:30
460-246010-9	105_PE-16	Solid	10/27/21 14:05	10/27/21 19:30
460-246010-10	106_PE-18	Solid	10/27/21 14:15	10/27/21 19:30
460-246010-11	107_TB-6	Water	10/27/21 00:00	10/27/21 19:30

Address: 2455 Third Ave, Bronx NY

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: **NYSDEC BOP** TAL-8210

Client Contact
 Company Name: **Langan**
 Address: **300 Remond Dr**
 City/State/Zip: **Passaic, NJ**
 Phone: **973 560 4441**
 Fax:
 Project Name: **2455 Third Ave**
 Site: **1905101**
 P O #

Project Manager: **A. Foy**
 Tel/Email: **973 560 4574**
 Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
 TAT if different from Below
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Site Contact: **M. McBride** Date: **10/27/21** COC No: **1** of **1** COCs
 Lab Contact: **Carrier:** Sampler:



Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes:
047-PE-2	10/27/21	1210	G	S	8	N	N	1
048-PE-3		1220				N	N	2
049-PE-5		1240				N	N	3
100-PE-8		1250				N	N	4
101-PE-7		1300				N	N	5
102-PE-14		1325				N	N	6
103-PE-15		1335				N	N	7
104-PE-9		1350				N	N	8
105-PE-16		1405				N	N	9
106-PE-13		1415				N	N	10
107-TB-6	10/27/21	-	-	AG	2	N	N	11

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

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained long)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for

SHORT HOLD

Special Instructions/QC Requirements & Comments: **ASP-B w/ NYSDEC PCR**

Custody Seal No.: **Langen**

Relinquished by: **Wagner McBride** Date/Time: **10/27/21 14:45**

Relinquished by: **Carrier** Date/Time: **10/27/21 1700**

Relinquished by: **Carrier** Date/Time: **10/27/21 1830**

1015 7284

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

46010

[illegible]

If pH adjustments are required record the information below:

, adjusted:

Volume of Preservative used (ml):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: Lavel

Eurofins TestAmerica, Edison

777 New Durham Road

Edison, NJ 08817

Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Environment Testing
America

Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:			
Client Contact:		Phone:		E-Mail:		State of Origin:		Page:			
Shipping/Receiving				Patricia Grieco@Eurofinset.com		New York		Page 1 of 2			
Company:				Accreditations Required (See note):				Job #:			
Eurofins Lancaster Laboratories Environm				NELAP - New York				460-246010-1			
Address:		Due Date Requested:		Analysis Requested						Preservation Codes:	
2425 New Holland Pike,		11/5/2021									
City:		TAT Requested (days):		Total Number of Containers						Other:	
Lancaster											
State, Zip:		PO #:		Field Filtered Sample (Yes or No)						Total Number of Containers	
PA, 17601											
Phone:		WO #:		Performance Method (Yes or No)						Total Number of Containers	
717-656-2300(Tel)											
Email:				PFC ID/SHake_Bath_14D NY 21 PFAS						Total Number of Containers	
Project Name:		Project #:		Total Number of Containers						Total Number of Containers	
2455 Third Avenue, Bronx, NY		46035981									
Site:		SSOW#		Total Number of Containers						Total Number of Containers	
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil/sediment)	Field Filtered Sample (Yes or No)	Performance Method (Yes or No)	PFC ID/SHake_Bath_14D NY 21 PFAS	Special Instructions/Note:		
097_PE-2 (460-246010-1)		10/27/21	12:10 Eastern		Solid			X			
098_PE-3 (460-246010-2)		10/27/21	12:20 Eastern		Solid			X			
099_PE-5 (460-246010-3)		10/27/21	12:40 Eastern		Solid			X			
100_PE-8 (460-246010-4)		10/27/21	12:50 Eastern		Solid			X			
101_PE-7 (460-246010-5)		10/27/21	13:00 Eastern		Solid			X			
102_PE-14 (460-246010-8)		10/27/21	13:25 Eastern		Solid			X			
103_PE-15 (460-246010-7)		10/27/21	13:35 Eastern		Solid			X			
104_PE-9 (460-246010-8)		10/27/21	13:50 Eastern		Solid			X			
105_PE-16 (460-246010-9)		10/27/21	14:05 Eastern		Solid			X			
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.											
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Unconfirmed						☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)						Primary Deliverable Rank: 4					
Empty Kit Relinquished by:						Special Instructions/QC Requirements:					
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Burr		10/29/21 1610		STAEI		Burr		10/29/21 1610		STAEI	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Burr		10/29/21 2020		STAEI		Burr		10/29/21 2020		STAEI	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Burr		10/29/21 2020		STAEI		Burr		10/29/21 2020		STAEI	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:							
Δ Yes Δ No		Not Present		1.5-2.4 °C							

Ver: 06/08/2021

Eurofins TestAmerica, Edison

777 New Durham Road

Edison, NJ 08817

Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Environment Testing
America

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Grieco, Patricia		Carrier Tracking No(s):		COC No: 460-63223.2	
Client Contact: Shipping/Receiving		Phone:		E-Mail: Patricia.Grieco@Eurofinset.com		State of Origin: New York		Page: Page 2 of 2	
Company: Eurofins Lancaster Laboratories Environm		Due Date Requested: 11/5/2021		Accreditations Required (See note): NELAP - New York		Job #: 460-246010-1		Preservation Codes:	
Address: 2425 New Holland Pike,		TAT Requested (days):		Analysis Requested		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		Other:	
City: Lancaster		PO #:							
State, Zip: PA, 17601		WO #:							
Phone: 717-656-2300(Tel)		Project #: 46035981							
Email:		SSOW#:		Project Name: 2455 Third Avenue, Bronx, NY		Site:			
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other)	Special Instructions/Note:			
106_PE-18 (460-246010-10)	10/27/21	14:15 Eastern	Solid						
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Primary Deliverable Rank: 4				
Empty Kit Relinquished by:					Special Instructions/QC Requirements:				
Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>Bgr</i>		Date/Time: 10/29/21 1610		Company: ETOEL		Received by: <i>Bgr</i>		Date/Time: 10/29/21 1610	
Relinquished by:		Date/Time: 10/29/21 2020		Company: ETC		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by: <i>Kan</i>		Date/Time: 10/29/21 2020	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					
Δ Yes Δ No		Not Present		1.5-24 C					

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-246010-1

Login Number: 246010

List Number: 1

Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-246010-1

Login Number: 246010

List Number: 2

Creator: Cyms, Carolyn M

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 10/29/21 07:05 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

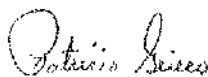
Laboratory Job ID: 460-246107-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:
2/14/2022 5:37:51 PM

Patricia Grieco, Senior Project Manager
(732)593-2507
Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



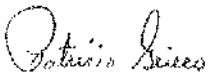
Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
2/14/2022 5:37:51 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	13
Client Sample Results	16
Surrogate Summary	37
Isotope Dilution Summary	41
QC Sample Results	43
QC Association Summary	88
Lab Chronicle	98
Certification Summary	103
Method Summary	105
Sample Summary	106
Chain of Custody	107
Receipt Checklists	110



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
*	Duplicate analysis not within control limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
*	Duplicate analysis not within control limits.
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Job ID: 460-246107-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-246107-1

Revision #1: Check On Metals Results

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 10/28/2021 7:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 10/29/2021 and analyzed on 11/02/2021.

The continuing calibration verification (CCV) associated with batch 460-810770 recovered above the upper control limit for Vinyl chloride. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 112_TB-7 (460-246107-5) and 113_FB-6 (460-246107-6) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 11/02/2021.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Job ID: 460-246107-1 (Continued)

Laboratory: Eurofins Edison (Continued)

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 10/29/2021 and analyzed on 10/30/2021 and 11/01/2021.

Several analytes failed the recovery criteria low for the MS of sample 460-245855-1 in batch 460-810400.

Several analytes failed the recovery criteria low for the MSD of sample 460-245855-1 in batch 460-810400.

Several analytes failed the recovery criteria low for the MSD of sample 460-246078-7 in batch 460-810280.

Refer to the QC report for details.

Sample 108_PE-22 (460-246107-1)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 460-810241 was outside the method criteria for the following analyte(s): Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-810280 was outside the method criteria for the following analyte(s): Benzo[a]pyrene and Dibenzo(a,h)anthracene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-810400 was outside the method criteria for the following analyte(s): Benzo[b]fluoranthene, 4,6-Dinitro-2-methylphenol, Benzo[a]pyrene, Benzaldehyde and Dibenzo(a,h)anthracene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The following sample was diluted to bring the concentration of target analytes within the calibration range: 108_PE-22 (460-246107-1). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 113_FB-6 (460-246107-6) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 10/29/2021 and analyzed on 10/30/2021.

2-Methylphenol, 3 & 4 Methylphenol and Phenol failed the recovery criteria low for the MSD of sample 460-246021-3 in batch 460-810241. 2-Methylphenol, 3 & 4 Methylphenol, Benzo[k]fluoranthene and Phenol exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 10/31/2021 and analyzed on 11/02/2021.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Job ID: 460-246107-1 (Continued)

Laboratory: Eurofins Edison (Continued)

DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 109_PE-23 (460-246107-2). Refer to the QC report for details.

Endosulfan II failed the recovery criteria high for LCSD 460-810503/3-A. Refer to the QC report for details.

The continuing calibration verification (CCV) associated with batch 460-810571 recovered above the upper control limit for delta-BHC and Endrin ketone. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 460-810571/3).

The continuing calibration verification (CCV) for DCB Decachlorobiphenyl exceeded control criteria on the primary column but within control limits on secondary column. The sample were reported on the secondary column for analytes detected. The data have been qualified and reported. (CCVIS 460-810767/3)

The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: 109_PE-23 (460-246107-2). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Sample 113_FB-6 (460-246107-6) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 10/29/2021 and analyzed on 11/01/2021.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 10/31/2021 and analyzed on 11/02/2021.

DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 108_PE-22 (460-246107-1). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 109_PE-23 (460-246107-2). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 111_PE-6 (460-246107-4). Refer to the QC report for details.

Decachlorobiphenyl surrogate recovery for this sample was outside control limits but Tetrachloro-m-xylene surrogate recovery within control limits; therefore the data have been qualified and reported. 109_PE-23 (460-246107-2)

The Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: 108_PE-22 (460-246107-1) and 111_PE-6 (460-246107-4). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample 113_FB-6 (460-246107-6) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 10/29/2021 and analyzed on 11/01/2021.

No difficulties were encountered during the PCBs analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Job ID: 460-246107-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 11/01/2021 and analyzed on 11/02/2021.

2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria high for 108_PE-22 (460-246107-1). 2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria high for 480-191597-D-6-A MS. 2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria high for 480-191597-D-6-B MSD. Refer to the QC report for details.

Silvex (2,4,5-TP) failed the recovery criteria high for LCS 460-810745/2-A. Silvex (2,4,5-TP) failed the recovery criteria high for LCSD 460-810745/3-A. Refer to the QC report for details.

Silvex (2,4,5-TP) failed the recovery criteria high for the MS of sample 480-191597-6 in batch 460-810879.

Silvex (2,4,5-TP) exceeded the RPD limit for the MSD of sample 480-191597-6 in batch 460-810879.

Refer to the QC report for details.

The closing continuing calibration verification (CCVC) associated with batch 460-810596 recovered above the upper control limit for 2,4,5-T. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The 2,4-Dichlorophenylacetic acid surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: (480-191597-D-6-C). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

The continuing calibration verification (CCV) associated with batch 460-810879 recovered above the upper control limit for Dinoseb. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 460-810745 and analytical batch 460-810800 recovered outside control limits for the following analytes: 2,4-D and Silvex (2,4,5-TP). These analytes were biased high in the LCS and LCSD and were not detected in the associated samples; therefore, the data have been reported.

The 2,4-Dichlorophenylacetic acid surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Sample 113_FB-6 (460-246107-6) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 10/29/2021 and analyzed on 11/01/2021.

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 11/04/2021 and analyzed on 11/06/2021.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Job ID: 460-246107-1 (Continued)

Laboratory: Eurofins Edison (Continued)

The recovery for the labeled isotope(s) in the following samples: 113_FB-6 (460-246107-6) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

The recovery for the labeled isotope(s) in the method blank and the laboratory control spike sample(s) associated with the following sample(s): 113_FB-6 (460-246107-6) is outside the QC acceptance limits. Since the recovery is biased high, associated target analytes are not detected in the method blank and the recovery for target analytes in the Laboratory Control Spike(s) is within the QC limits, the data is reported.

The LCS/LCSD labeled isotope(s) recovery associated with samples: 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) is outside the QC acceptance limits. Since the recovery for target analytes is within the limits, the data is reported.

The recovery for the labeled isotope(s) in the method blank associated with samples: 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 11/03/2021 and analyzed on 11/03/2021, 11/04/2021, 11/07/2021 and 11/08/2021.

Manganese failed the recovery criteria high for the MS of sample 460-245871-3 in batch 460-811589.

Refer to the QC report for details.

Samples 109_PE-23 (460-246107-2)[50X], 110_DUP-6 (460-246107-3)[50X] and 111_PE-6 (460-246107-4)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Sample 113_FB-6 (460-246107-6) was analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 11/03/2021 and analyzed on 11/04/2021 and 11/08/2021.

No other difficulties were encountered during the Total Metals (ICP/MS) analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 11/05/2021 and analyzed on 11/07/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample 113_FB-6 (460-246107-6) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Job ID: 460-246107-1 (Continued)

Laboratory: Eurofins Edison (Continued)

were analyzed on 10/29/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample 113_FB-6 (460-246107-6) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 11/04/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 11/05/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 10/29/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Sample 113_FB-6 (460-246107-6) was analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 10/29/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 11/03/2021 and analyzed on 11/04/2021.

Cyanide, Total failed the recovery criteria high for the MS of sample 109_PE-23MS (460-246107-2) in batch 460-811344.

Cyanide, Total failed the recovery criteria high for the MSD of sample 109_PE-23MSD (460-246107-2) in batch 460-811344.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Sample 113_FB-6 (460-246107-6) was analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Job ID: 460-246107-1 (Continued)

Laboratory: Eurofins Edison (Continued)

prepared and analyzed on 11/03/2021.

Cyanide, Total failed the recovery criteria high for the MS of sample 460-245838-1 in batch 460-811215.

Cyanide, Total failed the recovery criteria high for the MSD of sample 460-245838-1 in batch 460-811215.

Refer to the QC report for details.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 108_PE-22 (460-246107-1), 109_PE-23 (460-246107-2), 110_DUP-6 (460-246107-3) and 111_PE-6 (460-246107-4) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 11/02/2021.

Percent Moisture exceeded the RPD limit for the duplicate of sample 460-246207-7. Refer to the QC report for details.

No other difficulties were encountered during the %solids/moisture analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Sample 113_FB-6 (460-246107-6) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA. The samples were prepared on 11/02/2021 and analyzed on 11/05/2021.

No difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 108_PE-22

Lab Sample ID: 460-246107-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	64	J	380	6.5	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	57	J	380	3.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	120	J	380	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	63	J	380	5.3	ug/Kg	1	✱	8270E	Total/NA
Fluorene	160	J	380	5.1	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	2900		380	6.6	ug/Kg	1	✱	8270E	Total/NA
Anthracene	1200		380	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	6900		38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	5800		380	6.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	8200		38	9.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	3100		38	7.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	6200		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	2900		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	720		38	16	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	1900		380	11	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene - DL	11000		750	26	ug/Kg	2	✱	8270E	Total/NA
Pyrene - DL	9700		750	19	ug/Kg	2	✱	8270E	Total/NA
4,4'-DDD	6.3	J	7.6	1.3	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDE	7.7	p	7.6	0.90	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	44		7.6	1.4	ug/Kg	1	✱	8081B	Total/NA
Arsenic	2.1		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	45.2		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.23	J	0.43	0.061	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.16	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	8.3		2.1	0.28	mg/Kg	1	✱	6020B	Total/NA
Copper	44.6		2.1	0.39	mg/Kg	1	✱	6020B	Total/NA
Manganese	225		4.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	8.5		2.1	0.50	mg/Kg	1	✱	6020B	Total/NA
Lead	158		0.64	0.21	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.16	J	1.3	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	64.6		8.5	3.2	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.33		0.018	0.0085	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	8.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 109_PE-23

Lab Sample ID: 460-246107-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	24	J	400	6.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	14	J	400	4.0	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	9.1	J	400	5.6	ug/Kg	1	✱	8270E	Total/NA
Fluorene	9.8	J	400	5.4	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	98	J	400	7.0	ug/Kg	1	✱	8270E	Total/NA
Anthracene	33	J	400	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	150	J	400	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	140	J	400	9.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	87		40	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	68	J	400	6.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	89		40	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	35	J	40	7.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	72		40	11	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	410		40	16	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 109_PE-23 (Continued)

Lab Sample ID: 460-246107-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz(a,h)anthracene	54		40	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	390	J	400	12	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDT	4.4	J	8.1	1.5	ug/Kg	1	✱	8081B	Total/NA
Silver	1.6		1.1	0.10	mg/Kg	1	✱	6020B	Total/NA
Arsenic	20.4		1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	8890		115	8.3	mg/Kg	50	✱	6020B	Total/NA
Beryllium	0.51		0.46	0.065	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.28	J	1.1	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	23.9		2.3	0.31	mg/Kg	1	✱	6020B	Total/NA
Copper	229		2.3	0.42	mg/Kg	1	✱	6020B	Total/NA
Manganese	862		4.6	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.8		2.3	0.54	mg/Kg	1	✱	6020B	Total/NA
Lead	78100		34.4	11.5	mg/Kg	50	✱	6020B	Total/NA
Selenium	0.39	J	1.4	0.15	mg/Kg	1	✱	6020B	Total/NA
Zinc	8060		459	175	mg/Kg	50	✱	6020B	Total/NA
Mercury	0.15		0.020	0.0096	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	23.9		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cyanide, Total	0.24	J	0.29	0.16	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11		6.8	6.5	ug/Kg	1	✱	8260D	Total/NA
Acenaphthylene	14	J	390	4.0	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	14	J	390	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	5.5	J	390	5.5	ug/Kg	1	✱	8270E	Total/NA
Fluorene	8.6	J	390	5.4	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	160	J	390	6.9	ug/Kg	1	✱	8270E	Total/NA
Anthracene	34	J	390	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	270	J	390	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	240	J	390	9.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	130		39	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	120	J	390	6.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	170		39	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	62		39	7.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	130		39	11	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	110		39	15	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	67	J	390	12	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDT	3.4	J	8.0	1.5	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.26	J	0.68	0.23	ug/Kg	1	✱	537 IDA	Total/NA
Silver	1.7		1.1	0.10	mg/Kg	1	✱	6020B	Total/NA
Arsenic	20.0		1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	8580		115	8.3	mg/Kg	50	✱	6020B	Total/NA
Beryllium	0.39	J	0.46	0.065	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.30	J	1.1	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	21.5		2.3	0.31	mg/Kg	1	✱	6020B	Total/NA
Copper	347		2.3	0.42	mg/Kg	1	✱	6020B	Total/NA
Manganese	656		4.6	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.8		2.3	0.54	mg/Kg	1	✱	6020B	Total/NA
Lead	72200		34.4	11.5	mg/Kg	50	✱	6020B	Total/NA
Selenium	0.38	J	1.4	0.15	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 110_DUP-6 (Continued)

Lab Sample ID: 460-246107-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	5790		459	175	mg/Kg	50	✱	6020B	Total/NA
Mercury	0.066		0.020	0.0094	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	19.3		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cr (VI)	2.2	J	2.4	1.0	mg/Kg	1	✱	7196A	Total/NA

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	67	J	380	6.6	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	21	J	380	3.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	14	J	380	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	33	J	380	5.4	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	270	J	380	6.7	ug/Kg	1	✱	8270E	Total/NA
Anthracene	29	J	380	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	500		380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	530		380	9.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	180		38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	340	J	380	6.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	520		38	9.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	240		38	7.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	300		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	390		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	42		38	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	260	J	380	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDE	5.8	J	7.7	0.91	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	4.5	J	7.7	1.4	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanoic acid	0.32	J	0.65	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.10	J	1.1	0.095	mg/Kg	1	✱	6020B	Total/NA
Arsenic	2.6		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	412		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.23	J	0.43	0.061	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.73	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.6		2.1	0.29	mg/Kg	1	✱	6020B	Total/NA
Copper	16.5		2.1	0.39	mg/Kg	1	✱	6020B	Total/NA
Manganese	241		4.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	7.2		2.1	0.50	mg/Kg	1	✱	6020B	Total/NA
Lead	2980		1.3	0.43	mg/Kg	2	✱	6020B	Total/NA
Zinc	643		8.5	3.3	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.41		0.018	0.0084	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	10.5		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cr (VI)	1.0	J	2.3	0.99	mg/Kg	1	✱	7196A	Total/NA
Cyanide, Total	0.36		0.27	0.15	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 112_TB-7

Lab Sample ID: 460-246107-5

No Detections.

Client Sample ID: 113_FB-6

Lab Sample ID: 460-246107-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 108_PE-22

Lab Sample ID: 460-246107-1

Date Collected: 10/28/21 10:05

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 87.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
1,4-Dioxane	20	U	20	9.2	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Acetone	6.0	U	6.0	5.7	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Benzene	1.0	U	1.0	0.26	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Chloroform	1.0	U	1.0	0.97	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Toluene	1.0	U	1.0	0.23	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg	☼	10/29/21 15:05	11/02/21 12:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 145	10/29/21 15:05	11/02/21 12:44	1
4-Bromofluorobenzene	93		70 - 139	10/29/21 15:05	11/02/21 12:44	1
Dibromofluoromethane (Surr)	101		48 - 150	10/29/21 15:05	11/02/21 12:44	1
Toluene-d8 (Surr)	94		80 - 120	10/29/21 15:05	11/02/21 12:44	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
2-Methylphenol	380	U	380	14	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
Pentachlorophenol	300	U	300	77	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
Naphthalene	64	J	380	6.5	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
Acenaphthylene	57	J	380	3.8	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
Acenaphthene	120	J	380	11	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
Dibenzofuran	63	J	380	5.3	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
Fluorene	160	J	380	5.1	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1
Phenanthrene	2900		380	6.6	ug/Kg	☼	10/29/21 19:09	10/30/21 21:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 108_PE-22

Lab Sample ID: 460-246107-1

Date Collected: 10/28/21 10:05

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 87.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	1200		380	11	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
Benzo[a]anthracene	6900		38	13	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
Chrysene	5800		380	6.4	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
Benzo[b]fluoranthene	8200		38	9.8	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
Benzo[k]fluoranthene	3100		38	7.4	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
Benzo[a]pyrene	6200		38	10	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
Indeno[1,2,3-cd]pyrene	2900		38	15	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
Dibenz(a,h)anthracene	720		38	16	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
Benzo[g,h,i]perylene	1900		380	11	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	10/29/21 19:09	10/30/21 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		11 - 104	10/29/21 19:09	10/30/21 21:44	1
Phenol-d5 (Surr)	58		15 - 100	10/29/21 19:09	10/30/21 21:44	1
Terphenyl-d14 (Surr)	61		12 - 126	10/29/21 19:09	10/30/21 21:44	1
2,4,6-Tribromophenol (Surr)	62		10 - 123	10/29/21 19:09	10/30/21 21:44	1
2-Fluorophenol (Surr)	57		10 - 105	10/29/21 19:09	10/30/21 21:44	1
2-Fluorobiphenyl	57		14 - 103	10/29/21 19:09	10/30/21 21:44	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	11000		750	26	ug/Kg	✱	10/29/21 19:09	11/01/21 20:33	2
Pyrene	9700		750	19	ug/Kg	✱	10/29/21 19:09	11/01/21 20:33	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	49		11 - 104	10/29/21 19:09	11/01/21 20:33	2
Phenol-d5 (Surr)	53		15 - 100	10/29/21 19:09	11/01/21 20:33	2
Terphenyl-d14 (Surr)	60		12 - 126	10/29/21 19:09	11/01/21 20:33	2
2,4,6-Tribromophenol (Surr)	63		10 - 123	10/29/21 19:09	11/01/21 20:33	2
2-Fluorophenol (Surr)	55		10 - 105	10/29/21 19:09	11/01/21 20:33	2
2-Fluorobiphenyl	57		14 - 103	10/29/21 19:09	11/01/21 20:33	2

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.3	J	7.6	1.3	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
4,4'-DDE	7.7	p	7.6	0.90	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
4,4'-DDT	44		7.6	1.4	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Aldrin	7.6	U	7.6	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
alpha-BHC	2.3	U	2.3	0.77	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
beta-BHC	2.3	U	2.3	0.85	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Chlordane (technical)	76	U	76	18	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Dieldrin	2.3	U	2.3	0.99	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Endosulfan I	7.6	U	7.6	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Endosulfan II	7.6	U *	7.6	2.0	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Endosulfan sulfate	7.6	U	7.6	0.96	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Endrin	7.6	U	7.6	1.1	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Endrin aldehyde	7.6	U	7.6	1.8	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
Endrin ketone	7.6	U	7.6	1.5	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1
gamma-BHC (Lindane)	2.3	U	2.3	0.71	ug/Kg	✱	10/31/21 08:58	11/02/21 10:06	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 108_PE-22

Lab Sample ID: 460-246107-1

Date Collected: 10/28/21 10:05

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 87.8

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	7.6	U	7.6	0.90	ug/Kg	☆	10/31/21 08:58	11/02/21 10:06	1
Heptachlor epoxide	7.6	U	7.6	1.1	ug/Kg	☆	10/31/21 08:58	11/02/21 10:06	1
Methoxychlor	7.6	U	7.6	1.7	ug/Kg	☆	10/31/21 08:58	11/02/21 10:06	1
Toxaphene	76	U	76	28	ug/Kg	☆	10/31/21 08:58	11/02/21 10:06	1
cis-Chlordane	7.6	U	7.6	1.2	ug/Kg	☆	10/31/21 08:58	11/02/21 10:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		10 - 150	10/31/21 08:58	11/02/21 10:06	1
DCB Decachlorobiphenyl	110		10 - 150	10/31/21 08:58	11/02/21 10:06	1
Tetrachloro-m-xylene	62		10 - 133	10/31/21 08:58	11/02/21 10:06	1
Tetrachloro-m-xylene	71		10 - 133	10/31/21 08:58	11/02/21 10:06	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Aroclor 1221	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Aroclor 1232	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Aroclor 1242	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Aroclor 1248	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Aroclor 1254	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Aroclor 1260	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Aroclor-1262	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Aroclor 1268	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1
Polychlorinated biphenyls, Total	76	U	76	20	ug/Kg	☆	10/31/21 08:47	11/02/21 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	148		37 - 150	10/31/21 08:47	11/02/21 15:32	1
DCB Decachlorobiphenyl	159 *		37 - 150	10/31/21 08:47	11/02/21 15:32	1
Tetrachloro-m-xylene	98		54 - 150	10/31/21 08:47	11/02/21 15:32	1
Tetrachloro-m-xylene	105		54 - 150	10/31/21 08:47	11/02/21 15:32	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	☆	11/01/21 23:16	11/02/21 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	149		65 - 150	11/01/21 23:16	11/02/21 16:14	1
2,4-Dichlorophenylacetic acid	198 *		65 - 150	11/01/21 23:16	11/02/21 16:14	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluoroheptanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluorooctanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluorononanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluorodecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluorotridecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluorotetradecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluorobutanesulfonic acid	2.26	U	2.26	0.45	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluorohexanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1
Perfluorooctanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:27	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 108_PE-22

Lab Sample ID: 460-246107-1

Date Collected: 10/28/21 10:05

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 87.8

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.26	U	2.26	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
NMeFOSAA	2.26	U	2.26	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
Perfluoroheptanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
Perfluorodecanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
Perfluorooctanesulfonamide	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
Perfluorobutanoic acid	2.26	U	2.26	0.90	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
Perfluoroundecanoic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
Perfluorododecanoic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
6:2 Fluorotelomer sulfonic acid	2.26	U	2.26	0.68	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
8:2 Fluorotelomer sulfonic acid	3.38	U	3.38	0.68	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
Perfluoropentanoic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	110		10 - 178				11/04/21 18:39	11/06/21 16:27	1
M2-6:2 FTS	89		10 - 182				11/04/21 18:39	11/06/21 16:27	1
13C5 PFHxA	103		11 - 138				11/04/21 18:39	11/06/21 16:27	1
13C4 PFHpA	105		15 - 139				11/04/21 18:39	11/06/21 16:27	1
13C8 PFOA	99		21 - 133				11/04/21 18:39	11/06/21 16:27	1
13C9 PFNA	107		15 - 145				11/04/21 18:39	11/06/21 16:27	1
13C6 PFDA	108		21 - 134				11/04/21 18:39	11/06/21 16:27	1
13C7 PFUnA	104		15 - 138				11/04/21 18:39	11/06/21 16:27	1
13C2-PFDoDA	106		28 - 126				11/04/21 18:39	11/06/21 16:27	1
13C2 PFTeDA	104		10 - 138				11/04/21 18:39	11/06/21 16:27	1
13C3 PFBS	112		23 - 130				11/04/21 18:39	11/06/21 16:27	1
13C3 PFHxS	108		24 - 136				11/04/21 18:39	11/06/21 16:27	1
13C8 PFOS	107		31 - 130				11/04/21 18:39	11/06/21 16:27	1
d3-NMeFOSAA	71		10 - 172				11/04/21 18:39	11/06/21 16:27	1
d5-NEtFOSAA	100		10 - 176				11/04/21 18:39	11/06/21 16:27	1
13C8 FOSA	101		25 - 135				11/04/21 18:39	11/06/21 16:27	1
13C4 PFBA	105		12 - 137				11/04/21 18:39	11/06/21 16:27	1
13C5 PFPeA	112		12 - 135				11/04/21 18:39	11/06/21 16:27	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.095	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Arsenic	2.1		1.1	0.11	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Barium	45.2		2.1	0.15	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Beryllium	0.23	J	0.43	0.061	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Cadmium	0.16	J	1.1	0.12	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Chromium	8.3		2.1	0.28	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Copper	44.6		2.1	0.39	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Manganese	225		4.3	0.43	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Nickel	8.5		2.1	0.50	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Lead	158		0.64	0.21	mg/Kg	✧	11/03/21 06:52	11/04/21 19:16	1
Selenium	0.16	J	1.3	0.14	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1
Zinc	64.6		8.5	3.2	mg/Kg	✧	11/03/21 06:52	11/03/21 22:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.33		0.018	0.0085	mg/Kg	✧	11/05/21 03:17	11/05/21 06:52	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 108_PE-22

Date Collected: 10/28/21 10:05

Date Received: 10/28/21 19:30

Lab Sample ID: 460-246107-1

Matrix: Solid

Percent Solids: 87.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	8.3		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.3	U	2.3	0.97	mg/Kg	☆	11/05/21 18:06	11/07/21 12:03	1
Cyanide, Total	0.25	U	0.25	0.14	mg/Kg	☆	11/03/21 11:17	11/04/21 12:19	1
Percent Moisture	12.2		1.0	1.0	%			11/02/21 19:12	1
Percent Solids	87.8		1.0	1.0	%			11/02/21 19:12	1

Client Sample ID: 109_PE-23

Date Collected: 10/28/21 10:20

Date Received: 10/28/21 19:30

Lab Sample ID: 460-246107-2

Matrix: Solid

Percent Solids: 83.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.2	U	1.2	0.28	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,1-Dichloroethane	1.2	U	1.2	0.24	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,1-Dichloroethene	1.2	U	1.2	0.27	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,2,4-Trimethylbenzene	1.2	U	1.2	0.29	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,2-Dichlorobenzene	1.2	U	1.2	0.43	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,2-Dichloroethane	1.2	U	1.2	0.35	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,3,5-Trimethylbenzene	1.2	U	1.2	0.37	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,3-Dichlorobenzene	1.2	U	1.2	0.43	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,4-Dichlorobenzene	1.2	U	1.2	0.27	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
1,4-Dioxane	24	U	24	11	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
2-Butanone (MEK)	5.9	U	5.9	0.44	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Acetone	7.1	U	7.1	6.8	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Benzene	1.2	U	1.2	0.31	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Carbon tetrachloride	1.2	U	1.2	0.46	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Chlorobenzene	1.2	U	1.2	0.21	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Chloroform	1.2	U	1.2	1.1	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
cis-1,2-Dichloroethene	1.2	U	1.2	0.42	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Ethylbenzene	1.2	U	1.2	0.24	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Methyl tert-butyl ether	1.2	U	1.2	0.61	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Methylene Chloride	2.4	U	2.4	1.4	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
n-Butylbenzene	1.2	U	1.2	0.35	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
N-Propylbenzene	1.2	U	1.2	0.21	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
sec-Butylbenzene	1.2	U	1.2	0.34	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
tert-Butylbenzene	1.2	U	1.2	0.33	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Tetrachloroethene	1.2	U	1.2	0.36	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Toluene	1.2	U	1.2	0.28	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
trans-1,2-Dichloroethene	1.2	U	1.2	0.29	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Trichloroethene	1.2	U	1.2	0.38	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Vinyl chloride	1.2	U	1.2	0.65	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1
Xylenes, Total	2.4	U	2.4	0.76	ug/Kg	☆	10/29/21 15:06	11/02/21 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 145	10/29/21 15:06	11/02/21 13:04	1
4-Bromofluorobenzene	94		70 - 139	10/29/21 15:06	11/02/21 13:04	1
Dibromofluoromethane (Surr)	102		48 - 150	10/29/21 15:06	11/02/21 13:04	1
Toluene-d8 (Surr)	97		80 - 120	10/29/21 15:06	11/02/21 13:04	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 109_PE-23

Lab Sample ID: 460-246107-2

Date Collected: 10/28/21 10:20

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Pentachlorophenol	320	U	320	82	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Naphthalene	24	J	400	6.9	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Acenaphthylene	14	J	400	4.0	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Acenaphthene	400	U	400	11	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Dibenzofuran	9.1	J	400	5.6	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Fluorene	9.8	J	400	5.4	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Phenanthrene	98	J	400	7.0	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Anthracene	33	J	400	12	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Fluoranthene	150	J	400	14	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Pyrene	140	J	400	9.9	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Benzo[a]anthracene	87		40	14	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Chrysene	68	J	400	6.7	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Benzo[b]fluoranthene	89		40	10	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Benzo[k]fluoranthene	35	J	40	7.8	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Benzo[a]pyrene	72		40	11	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Indeno[1,2,3-cd]pyrene	410		40	16	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Dibenz(a,h)anthracene	54		40	17	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
Benzo[g,h,i]perylene	390	J	400	12	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	10/29/21 19:09	10/30/21 22:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		11 - 104	10/29/21 19:09	10/30/21 22:01	1
Phenol-d5 (Surr)	56		15 - 100	10/29/21 19:09	10/30/21 22:01	1
Terphenyl-d14 (Surr)	60		12 - 126	10/29/21 19:09	10/30/21 22:01	1
2,4,6-Tribromophenol (Surr)	58		10 - 123	10/29/21 19:09	10/30/21 22:01	1
2-Fluorophenol (Surr)	58		10 - 105	10/29/21 19:09	10/30/21 22:01	1
2-Fluorobiphenyl	56		14 - 103	10/29/21 19:09	10/30/21 22:01	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.1	U	8.1	1.4	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
4,4'-DDE	8.1	U	8.1	0.95	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
4,4'-DDT	4.4	J	8.1	1.5	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
beta-BHC	2.4	U	2.4	0.90	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Chlordane (technical)	81	U	81	20	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Endosulfan II	8.1	U *	8.1	2.1	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Endrin	8.1	U	8.1	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	✱	10/31/21 08:58	11/02/21 10:22	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 109_PE-23

Lab Sample ID: 460-246107-2

Date Collected: 10/28/21 10:20

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.0

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	8.1	U	8.1	0.95	ug/Kg	☆	10/31/21 08:58	11/02/21 10:22	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	☆	10/31/21 08:58	11/02/21 10:22	1
Methoxychlor	8.1	U	8.1	1.8	ug/Kg	☆	10/31/21 08:58	11/02/21 10:22	1
Toxaphene	81	U	81	29	ug/Kg	☆	10/31/21 08:58	11/02/21 10:22	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	☆	10/31/21 08:58	11/02/21 10:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	119		10 - 150	10/31/21 08:58	11/02/21 10:22	1
DCB Decachlorobiphenyl	156	*	10 - 150	10/31/21 08:58	11/02/21 10:22	1
Tetrachloro-m-xylene	72		10 - 133	10/31/21 08:58	11/02/21 10:22	1
Tetrachloro-m-xylene	75		10 - 133	10/31/21 08:58	11/02/21 10:22	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Aroclor 1221	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Aroclor 1232	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Aroclor 1242	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Aroclor 1248	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Aroclor 1254	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Aroclor 1260	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Aroclor-1262	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Aroclor 1268	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1
Polychlorinated biphenyls, Total	81	U	81	21	ug/Kg	☆	10/31/21 08:47	11/02/21 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	164	*	37 - 150	10/31/21 08:47	11/02/21 15:10	1
DCB Decachlorobiphenyl	177	*	37 - 150	10/31/21 08:47	11/02/21 15:10	1
Tetrachloro-m-xylene	105		54 - 150	10/31/21 08:47	11/02/21 15:10	1
Tetrachloro-m-xylene	112		54 - 150	10/31/21 08:47	11/02/21 15:10	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	☆	11/01/21 23:16	11/02/21 16:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	115		65 - 150	11/01/21 23:16	11/02/21 16:28	1
2,4-Dichlorophenylacetic acid	185	*	65 - 150	11/01/21 23:16	11/02/21 16:28	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluoroheptanoic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluorooctanoic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluorononanoic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluorodecanoic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluorotridecanoic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluorotetradecanoic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluorobutanesulfonic acid	2.36	U	2.36	0.47	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluorohexanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1
Perfluorooctanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	☆	11/04/21 18:39	11/06/21 16:38	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 109_PE-23

Lab Sample ID: 460-246107-2

Date Collected: 10/28/21 10:20

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.0

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.36	U	2.36	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
NMeFOSAA	2.36	U	2.36	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
Perfluoroheptanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
Perfluorodecanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
Perfluorooctanesulfonamide	0.71	U	0.71	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
Perfluorobutanoic acid	2.36	U	2.36	0.94	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
Perfluoroundecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
Perfluorododecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
6:2 Fluorotelomer sulfonic acid	2.36	U	2.36	0.71	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
8:2 Fluorotelomer sulfonic acid	3.54	U	3.54	0.71	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
Perfluoropentanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 16:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	120		10 - 178				11/04/21 18:39	11/06/21 16:38	1
M2-6:2 FTS	93		10 - 182				11/04/21 18:39	11/06/21 16:38	1
13C5 PFHxA	98		11 - 138				11/04/21 18:39	11/06/21 16:38	1
13C4 PFHpA	104		15 - 139				11/04/21 18:39	11/06/21 16:38	1
13C8 PFOA	100		21 - 133				11/04/21 18:39	11/06/21 16:38	1
13C9 PFNA	105		15 - 145				11/04/21 18:39	11/06/21 16:38	1
13C6 PFDA	106		21 - 134				11/04/21 18:39	11/06/21 16:38	1
13C7 PFUnA	104		15 - 138				11/04/21 18:39	11/06/21 16:38	1
13C2-PFDoDA	105		28 - 126				11/04/21 18:39	11/06/21 16:38	1
13C2 PFTeDA	103		10 - 138				11/04/21 18:39	11/06/21 16:38	1
13C3 PFBS	112		23 - 130				11/04/21 18:39	11/06/21 16:38	1
13C3 PFHxS	104		24 - 136				11/04/21 18:39	11/06/21 16:38	1
13C8 PFOS	104		31 - 130				11/04/21 18:39	11/06/21 16:38	1
d3-NMeFOSAA	109		10 - 172				11/04/21 18:39	11/06/21 16:38	1
d5-NEtFOSAA	132		10 - 176				11/04/21 18:39	11/06/21 16:38	1
13C8 FOSA	103		25 - 135				11/04/21 18:39	11/06/21 16:38	1
13C4 PFBA	104		12 - 137				11/04/21 18:39	11/06/21 16:38	1
13C5 PFPeA	112		12 - 135				11/04/21 18:39	11/06/21 16:38	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.6		1.1	0.10	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Arsenic	20.4		1.1	0.12	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Barium	8890		115	8.3	mg/Kg	✱	11/03/21 06:52	11/04/21 19:19	50
Beryllium	0.51		0.46	0.065	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Cadmium	0.28	J	1.1	0.13	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Chromium	23.9		2.3	0.31	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Copper	229		2.3	0.42	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Manganese	862		4.6	0.46	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Nickel	10.8		2.3	0.54	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Lead	78100		34.4	11.5	mg/Kg	✱	11/03/21 06:52	11/04/21 19:19	50
Selenium	0.39	J	1.4	0.15	mg/Kg	✱	11/03/21 06:52	11/03/21 22:24	1
Zinc	8060		459	175	mg/Kg	✱	11/03/21 06:52	11/04/21 19:19	50

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.020	0.0096	mg/Kg	✱	11/05/21 03:17	11/05/21 06:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 109_PE-23

Lab Sample ID: 460-246107-2

Date Collected: 10/28/21 10:20

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	23.9		2.0	2.0	mg/Kg			10/29/21 06:38	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	☆	11/05/21 18:06	11/07/21 12:03	1
Cyanide, Total	0.24	J	0.29	0.16	mg/Kg	☆	11/03/21 11:17	11/04/21 12:12	1
Percent Moisture	17.0		1.0	1.0	%			11/02/21 19:12	1
Percent Solids	83.0		1.0	1.0	%			11/02/21 19:12	1

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Date Collected: 10/28/21 10:30

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.27	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,1-Dichloroethane	1.1	U	1.1	0.24	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,1-Dichloroethene	1.1	U	1.1	0.26	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,2,4-Trimethylbenzene	1.1	U	1.1	0.28	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,2-Dichlorobenzene	1.1	U	1.1	0.41	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,2-Dichloroethane	1.1	U	1.1	0.34	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,3,5-Trimethylbenzene	1.1	U	1.1	0.36	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,3-Dichlorobenzene	1.1	U	1.1	0.42	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,4-Dichlorobenzene	1.1	U	1.1	0.26	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
1,4-Dioxane	23	U	23	10	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
2-Butanone (MEK)	5.7	U	5.7	0.42	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Acetone	11		6.8	6.5	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Benzene	1.1	U	1.1	0.29	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Carbon tetrachloride	1.1	U	1.1	0.44	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Chlorobenzene	1.1	U	1.1	0.20	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Chloroform	1.1	U	1.1	1.1	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
cis-1,2-Dichloroethene	1.1	U	1.1	0.41	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Ethylbenzene	1.1	U	1.1	0.23	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Methyl tert-butyl ether	1.1	U	1.1	0.58	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Methylene Chloride	2.3	U	2.3	1.3	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
n-Butylbenzene	1.1	U	1.1	0.34	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
N-Propylbenzene	1.1	U	1.1	0.20	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
sec-Butylbenzene	1.1	U	1.1	0.33	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
tert-Butylbenzene	1.1	U	1.1	0.31	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Tetrachloroethene	1.1	U	1.1	0.35	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Toluene	1.1	U	1.1	0.27	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
trans-1,2-Dichloroethene	1.1	U	1.1	0.28	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Trichloroethene	1.1	U	1.1	0.37	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Vinyl chloride	1.1	U	1.1	0.62	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1
Xylenes, Total	2.3	U	2.3	0.73	ug/Kg	☆	10/29/21 15:06	11/02/21 13:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 145	10/29/21 15:06	11/02/21 13:24	1
4-Bromofluorobenzene	96		70 - 139	10/29/21 15:06	11/02/21 13:24	1
Dibromofluoromethane (Surr)	102		48 - 150	10/29/21 15:06	11/02/21 13:24	1
Toluene-d8 (Surr)	98		80 - 120	10/29/21 15:06	11/02/21 13:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Date Collected: 10/28/21 10:30

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	15	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
2-Methylphenol	390	U	390	15	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
3 & 4 Methylphenol	390	U	390	25	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Pentachlorophenol	320	U	320	81	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Naphthalene	390	U	390	6.8	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Acenaphthylene	14	J	390	4.0	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Acenaphthene	14	J	390	11	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Dibenzofuran	5.5	J	390	5.5	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Fluorene	8.6	J	390	5.4	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Hexachlorobenzene	39	U	39	19	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Phenanthrene	160	J	390	6.9	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Anthracene	34	J	390	12	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Fluoranthene	270	J	390	14	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Pyrene	240	J	390	9.8	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Benzo[a]anthracene	130		39	14	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Chrysene	120	J	390	6.7	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Benzo[b]fluoranthene	170		39	10	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Benzo[k]fluoranthene	62		39	7.7	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Benzo[a]pyrene	130		39	11	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Indeno[1,2,3-cd]pyrene	110		39	15	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
Benzo[g,h,i]perylene	67	J	390	12	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1
1,4-Dioxane	39	U	39	34	ug/Kg	✱	10/29/21 19:09	10/30/21 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		11 - 104	10/29/21 19:09	10/30/21 22:18	1
Phenol-d5 (Surr)	49		15 - 100	10/29/21 19:09	10/30/21 22:18	1
Terphenyl-d14 (Surr)	54		12 - 126	10/29/21 19:09	10/30/21 22:18	1
2,4,6-Tribromophenol (Surr)	52		10 - 123	10/29/21 19:09	10/30/21 22:18	1
2-Fluorophenol (Surr)	50		10 - 105	10/29/21 19:09	10/30/21 22:18	1
2-Fluorobiphenyl	48		14 - 103	10/29/21 19:09	10/30/21 22:18	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.0	U	8.0	1.4	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
4,4'-DDE	8.0	U	8.0	0.94	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
4,4'-DDT	3.4	J	8.0	1.5	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Aldrin	8.0	U	8.0	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
alpha-BHC	2.4	U	2.4	0.81	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
beta-BHC	2.4	U	2.4	0.89	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Chlordane (technical)	80	U	80	19	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Endosulfan I	8.0	U	8.0	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Endosulfan II	8.0	U *	8.0	2.1	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Endosulfan sulfate	8.0	U	8.0	1.0	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Endrin	8.0	U	8.0	1.1	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Endrin aldehyde	8.0	U	8.0	1.9	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
Endrin ketone	8.0	U	8.0	1.6	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1
gamma-BHC (Lindane)	2.4	U	2.4	0.74	ug/Kg	✱	10/31/21 08:58	11/02/21 10:38	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Date Collected: 10/28/21 10:30

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.8

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	8.0	U	8.0	0.94	ug/Kg	☆	10/31/21 08:58	11/02/21 10:38	1
Heptachlor epoxide	8.0	U	8.0	1.2	ug/Kg	☆	10/31/21 08:58	11/02/21 10:38	1
Methoxychlor	8.0	U	8.0	1.8	ug/Kg	☆	10/31/21 08:58	11/02/21 10:38	1
Toxaphene	80	U	80	29	ug/Kg	☆	10/31/21 08:58	11/02/21 10:38	1
cis-Chlordane	8.0	U	8.0	1.3	ug/Kg	☆	10/31/21 08:58	11/02/21 10:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	106		10 - 150	10/31/21 08:58	11/02/21 10:38	1
DCB Decachlorobiphenyl	130		10 - 150	10/31/21 08:58	11/02/21 10:38	1
Tetrachloro-m-xylene	78		10 - 133	10/31/21 08:58	11/02/21 10:38	1
Tetrachloro-m-xylene	85		10 - 133	10/31/21 08:58	11/02/21 10:38	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Aroclor 1221	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Aroclor 1232	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Aroclor 1242	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Aroclor 1248	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Aroclor 1254	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Aroclor 1260	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Aroclor-1262	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Aroclor 1268	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1
Polychlorinated biphenyls, Total	80	U	80	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	146		37 - 150	10/31/21 08:47	11/02/21 14:48	1
DCB Decachlorobiphenyl	149		37 - 150	10/31/21 08:47	11/02/21 14:48	1
Tetrachloro-m-xylene	115		54 - 150	10/31/21 08:47	11/02/21 14:48	1
Tetrachloro-m-xylene	116		54 - 150	10/31/21 08:47	11/02/21 14:48	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.1	ug/Kg	☆	11/01/21 23:16	11/02/21 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	114		65 - 150	11/01/21 23:16	11/02/21 16:41	1
2,4-Dichlorophenylacetic acid	202	*	65 - 150	11/01/21 23:16	11/02/21 16:41	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluoroheptanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluorooctanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluorononanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluorodecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluorotridecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluorotetradecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluorobutanesulfonic acid	2.27	U	2.27	0.45	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluorohexanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1
Perfluorooctanesulfonic acid	0.26	J	0.68	0.23	ug/Kg	☆	11/04/21 18:39	11/06/21 16:50	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Date Collected: 10/28/21 10:30

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.8

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.27	U	2.27	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
NMeFOSAA	2.27	U	2.27	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
Perfluoroheptanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
Perfluorodecanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
Perfluorooctanesulfonamide	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
Perfluorobutanoic acid	2.27	U	2.27	0.91	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
Perfluoroundecanoic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
Perfluorododecanoic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
6:2 Fluorotelomer sulfonic acid	2.27	U	2.27	0.68	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
8:2 Fluorotelomer sulfonic acid	3.41	U	3.41	0.68	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
Perfluoropentanoic acid	0.68	U	0.68	0.23	ug/Kg	✧	11/04/21 18:39	11/06/21 16:50	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	131		10 - 178				11/04/21 18:39	11/06/21 16:50	1
M2-6:2 FTS	114		10 - 182				11/04/21 18:39	11/06/21 16:50	1
13C5 PFHxA	119		11 - 138				11/04/21 18:39	11/06/21 16:50	1
13C4 PFHpA	127		15 - 139				11/04/21 18:39	11/06/21 16:50	1
13C8 PFOA	119		21 - 133				11/04/21 18:39	11/06/21 16:50	1
13C9 PFNA	123		15 - 145				11/04/21 18:39	11/06/21 16:50	1
13C6 PFDA	120		21 - 134				11/04/21 18:39	11/06/21 16:50	1
13C7 PFUnA	116		15 - 138				11/04/21 18:39	11/06/21 16:50	1
13C2-PFDoDA	121		28 - 126				11/04/21 18:39	11/06/21 16:50	1
13C2 PFTeDA	113		10 - 138				11/04/21 18:39	11/06/21 16:50	1
13C3 PFBS	125		23 - 130				11/04/21 18:39	11/06/21 16:50	1
13C3 PFHxS	126		24 - 136				11/04/21 18:39	11/06/21 16:50	1
13C8 PFOS	121		31 - 130				11/04/21 18:39	11/06/21 16:50	1
d3-NMeFOSAA	109		10 - 172				11/04/21 18:39	11/06/21 16:50	1
d5-NEtFOSAA	138		10 - 176				11/04/21 18:39	11/06/21 16:50	1
13C8 FOSA	116		25 - 135				11/04/21 18:39	11/06/21 16:50	1
13C4 PFBA	117		12 - 137				11/04/21 18:39	11/06/21 16:50	1
13C5 PFPeA	128		12 - 135				11/04/21 18:39	11/06/21 16:50	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.7		1.1	0.10	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Arsenic	20.0		1.1	0.12	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Barium	8580		115	8.3	mg/Kg	✧	11/03/21 06:52	11/04/21 19:28	50
Beryllium	0.39	J	0.46	0.065	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Cadmium	0.30	J	1.1	0.13	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Chromium	21.5		2.3	0.31	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Copper	347		2.3	0.42	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Manganese	656		4.6	0.46	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Nickel	10.8		2.3	0.54	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Lead	72200		34.4	11.5	mg/Kg	✧	11/03/21 06:52	11/04/21 19:28	50
Selenium	0.38	J	1.4	0.15	mg/Kg	✧	11/03/21 06:52	11/03/21 22:31	1
Zinc	5790		459	175	mg/Kg	✧	11/03/21 06:52	11/04/21 19:28	50

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.066		0.020	0.0094	mg/Kg	✧	11/05/21 03:17	11/05/21 07:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Date Collected: 10/28/21 10:30

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	19.3		2.0	2.0	mg/Kg			10/29/21 06:40	1
Cr (VI)	2.2	J	2.4	1.0	mg/Kg	☆	11/05/21 18:06	11/07/21 12:03	1
Cyanide, Total	0.27	U	0.27	0.14	mg/Kg	☆	11/03/21 11:17	11/04/21 12:20	1
Percent Moisture	16.2		1.0	1.0	%			11/02/21 19:12	1
Percent Solids	83.8		1.0	1.0	%			11/02/21 19:12	1

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Date Collected: 10/28/21 10:45

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 86.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.94	U	0.94	0.22	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,1-Dichloroethane	0.94	U	0.94	0.19	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,1-Dichloroethene	0.94	U	0.94	0.21	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,2,4-Trimethylbenzene	0.94	U	0.94	0.23	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,2-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,2-Dichloroethane	0.94	U	0.94	0.28	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,3,5-Trimethylbenzene	0.94	U	0.94	0.29	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,3-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,4-Dichlorobenzene	0.94	U	0.94	0.21	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
1,4-Dioxane	19	U	19	8.6	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
2-Butanone (MEK)	4.7	U	4.7	0.35	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Acetone	5.6	U	5.6	5.4	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Benzene	0.94	U	0.94	0.24	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Carbon tetrachloride	0.94	U	0.94	0.36	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Chlorobenzene	0.94	U	0.94	0.17	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Chloroform	0.94	U	0.94	0.91	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
cis-1,2-Dichloroethene	0.94	U	0.94	0.34	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Ethylbenzene	0.94	U	0.94	0.19	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Methyl tert-butyl ether	0.94	U	0.94	0.48	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
n-Butylbenzene	0.94	U	0.94	0.28	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
N-Propylbenzene	0.94	U	0.94	0.16	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
sec-Butylbenzene	0.94	U	0.94	0.27	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
tert-Butylbenzene	0.94	U	0.94	0.26	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Tetrachloroethene	0.94	U	0.94	0.29	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Toluene	0.94	U	0.94	0.22	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
trans-1,2-Dichloroethene	0.94	U	0.94	0.23	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Trichloroethene	0.94	U	0.94	0.30	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Vinyl chloride	0.94	U	0.94	0.51	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1
Xylenes, Total	1.9	U	1.9	0.60	ug/Kg	☆	10/29/21 15:07	11/02/21 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 145	10/29/21 15:07	11/02/21 13:44	1
4-Bromofluorobenzene	92		70 - 139	10/29/21 15:07	11/02/21 13:44	1
Dibromofluoromethane (Surr)	99		48 - 150	10/29/21 15:07	11/02/21 13:44	1
Toluene-d8 (Surr)	94		80 - 120	10/29/21 15:07	11/02/21 13:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Date Collected: 10/28/21 10:45

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 86.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
2-Methylphenol	380	U	380	14	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Pentachlorophenol	310	U	310	78	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Naphthalene	67	J	380	6.6	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Acenaphthylene	21	J	380	3.8	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Acenaphthene	14	J	380	11	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Dibenzofuran	33	J	380	5.4	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Fluorene	380	U	380	5.2	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Hexachlorobenzene	38	U	38	18	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Phenanthrene	270	J	380	6.7	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Anthracene	29	J	380	12	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Fluoranthene	500		380	13	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Pyrene	530		380	9.5	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Benzo[a]anthracene	180		38	13	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Chrysene	340	J	380	6.5	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Benzo[b]fluoranthene	520		38	9.9	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Benzo[k]fluoranthene	240		38	7.5	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Benzo[a]pyrene	300		38	10	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Indeno[1,2,3-cd]pyrene	390		38	15	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Dibenz(a,h)anthracene	42		38	17	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
Benzo[g,h,i]perylene	260	J	380	11	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	10/29/21 19:25	10/30/21 07:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	50		11 - 104	10/29/21 19:25	10/30/21 07:52	1
Phenol-d5 (Surr)	49		15 - 100	10/29/21 19:25	10/30/21 07:52	1
Terphenyl-d14 (Surr)	54		12 - 126	10/29/21 19:25	10/30/21 07:52	1
2,4,6-Tribromophenol (Surr)	35		10 - 123	10/29/21 19:25	10/30/21 07:52	1
2-Fluorophenol (Surr)	50		10 - 105	10/29/21 19:25	10/30/21 07:52	1
2-Fluorobiphenyl	49		14 - 103	10/29/21 19:25	10/30/21 07:52	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.7	U	7.7	1.3	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
4,4'-DDE	5.8	J	7.7	0.91	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
4,4'-DDT	4.5	J	7.7	1.4	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
alpha-BHC	2.3	U	2.3	0.78	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Chlordane (technical)	77	U	77	19	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Endosulfan II	7.7	U *	7.7	2.0	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Endosulfan sulfate	7.7	U	7.7	0.97	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Endrin	7.7	U	7.7	1.1	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	✱	10/31/21 08:58	11/02/21 10:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Date Collected: 10/28/21 10:45

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 86.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	7.7	U	7.7	0.91	ug/Kg	☆	10/31/21 08:58	11/02/21 10:54	1
Heptachlor epoxide	7.7	U	7.7	1.2	ug/Kg	☆	10/31/21 08:58	11/02/21 10:54	1
Methoxychlor	7.7	U	7.7	1.8	ug/Kg	☆	10/31/21 08:58	11/02/21 10:54	1
Toxaphene	77	U	77	28	ug/Kg	☆	10/31/21 08:58	11/02/21 10:54	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	☆	10/31/21 08:58	11/02/21 10:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	117		10 - 150	10/31/21 08:58	11/02/21 10:54	1
DCB Decachlorobiphenyl	150		10 - 150	10/31/21 08:58	11/02/21 10:54	1
Tetrachloro-m-xylene	84		10 - 133	10/31/21 08:58	11/02/21 10:54	1
Tetrachloro-m-xylene	92		10 - 133	10/31/21 08:58	11/02/21 10:54	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Aroclor 1221	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Aroclor 1232	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Aroclor 1242	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Aroclor 1248	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Aroclor 1254	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Aroclor 1260	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Aroclor-1262	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Aroclor 1268	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1
Polychlorinated biphenyls, Total	77	U	77	21	ug/Kg	☆	10/31/21 08:47	11/02/21 14:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	144		37 - 150	10/31/21 08:47	11/02/21 14:28	1
DCB Decachlorobiphenyl	158	*	37 - 150	10/31/21 08:47	11/02/21 14:28	1
Tetrachloro-m-xylene	119		54 - 150	10/31/21 08:47	11/02/21 14:28	1
Tetrachloro-m-xylene	131		54 - 150	10/31/21 08:47	11/02/21 14:28	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	☆	11/01/21 23:16	11/02/21 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	119		65 - 150	11/01/21 23:16	11/02/21 16:55	1
2,4-Dichlorophenylacetic acid	199	*	65 - 150	11/01/21 23:16	11/02/21 16:55	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluoroheptanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluorooctanoic acid	0.32	J	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluorononanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluorodecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluorotridecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluorotetradecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluorobutanesulfonic acid	2.18	U	2.18	0.44	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluorohexanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1
Perfluorooctanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	☆	11/04/21 18:39	11/06/21 17:01	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Date Collected: 10/28/21 10:45

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 86.7

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.18	U	2.18	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
NMeFOSAA	2.18	U	2.18	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
Perfluoroheptanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
Perfluorodecanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
Perfluorooctanesulfonamide	0.65	U	0.65	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
Perfluorobutanoic acid	2.18	U	2.18	0.87	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
Perfluoroundecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
Perfluorododecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
6:2 Fluorotelomer sulfonic acid	2.18	U	2.18	0.65	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
8:2 Fluorotelomer sulfonic acid	3.27	U	3.27	0.65	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
Perfluoropentanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:01	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	117		10 - 178				11/04/21 18:39	11/06/21 17:01	1
M2-6:2 FTS	95		10 - 182				11/04/21 18:39	11/06/21 17:01	1
13C5 PFHxA	102		11 - 138				11/04/21 18:39	11/06/21 17:01	1
13C4 PFHpA	107		15 - 139				11/04/21 18:39	11/06/21 17:01	1
13C8 PFOA	112		21 - 133				11/04/21 18:39	11/06/21 17:01	1
13C9 PFNA	109		15 - 145				11/04/21 18:39	11/06/21 17:01	1
13C6 PFDA	107		21 - 134				11/04/21 18:39	11/06/21 17:01	1
13C7 PFUnA	108		15 - 138				11/04/21 18:39	11/06/21 17:01	1
13C2-PFDoDA	109		28 - 126				11/04/21 18:39	11/06/21 17:01	1
13C2 PFTeDA	102		10 - 138				11/04/21 18:39	11/06/21 17:01	1
13C3 PFBS	122		23 - 130				11/04/21 18:39	11/06/21 17:01	1
13C3 PFHxS	115		24 - 136				11/04/21 18:39	11/06/21 17:01	1
13C8 PFOS	120		31 - 130				11/04/21 18:39	11/06/21 17:01	1
d3-NMeFOSAA	27		10 - 172				11/04/21 18:39	11/06/21 17:01	1
d5-NEtFOSAA	47		10 - 176				11/04/21 18:39	11/06/21 17:01	1
13C8 FOSA	111		25 - 135				11/04/21 18:39	11/06/21 17:01	1
13C4 PFBA	109		12 - 137				11/04/21 18:39	11/06/21 17:01	1
13C5 PFPeA	119		12 - 135				11/04/21 18:39	11/06/21 17:01	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	J	1.1	0.095	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Arsenic	2.6		1.1	0.11	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Barium	412		2.1	0.15	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Beryllium	0.23	J	0.43	0.061	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Cadmium	0.73	J	1.1	0.12	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Chromium	11.6		2.1	0.29	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Copper	16.5		2.1	0.39	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Manganese	241		4.3	0.43	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Nickel	7.2		2.1	0.50	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Lead	2980		1.3	0.43	mg/Kg	✱	11/03/21 07:31	11/08/21 10:26	2
Selenium	1.3	U	1.3	0.14	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1
Zinc	643		8.5	3.3	mg/Kg	✱	11/03/21 07:31	11/07/21 18:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.41		0.018	0.0084	mg/Kg	✱	11/05/21 03:17	11/05/21 07:01	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Date Collected: 10/28/21 10:45

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 86.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.5		2.0	2.0	mg/Kg			10/29/21 06:40	1
Cr (VI)	1.0	J	2.3	0.99	mg/Kg	☆	11/05/21 18:06	11/07/21 12:03	1
Cyanide, Total	0.36		0.27	0.15	mg/Kg	☆	11/03/21 11:17	11/04/21 12:21	1
Percent Moisture	13.3		1.0	1.0	%			11/02/21 19:12	1
Percent Solids	86.7		1.0	1.0	%			11/02/21 19:12	1

Client Sample ID: 112_TB-7

Lab Sample ID: 460-246107-5

Date Collected: 10/28/21 00:00

Matrix: Water

Date Received: 10/28/21 19:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/02/21 12:53	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/02/21 12:53	1
Acetone	5.0	U	5.0	4.4	ug/L			11/02/21 12:53	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/02/21 12:53	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/02/21 12:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/02/21 12:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/02/21 12:53	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/02/21 12:53	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/02/21 12:53	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/02/21 12:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/02/21 12:53	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/02/21 12:53	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/02/21 12:53	1
Benzene	1.0	U	1.0	0.20	ug/L			11/02/21 12:53	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/02/21 12:53	1
Toluene	1.0	U	1.0	0.38	ug/L			11/02/21 12:53	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/02/21 12:53	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/02/21 12:53	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/02/21 12:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			11/02/21 12:53	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/02/21 12:53	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/02/21 12:53	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			11/02/21 12:53	1
1,4-Dioxane	50	U	50	28	ug/L			11/02/21 12:53	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			11/02/21 12:53	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			11/02/21 12:53	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			11/02/21 12:53	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			11/02/21 12:53	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			11/02/21 12:53	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			11/02/21 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 123		11/02/21 12:53	1
Toluene-d8 (Surr)	102		80 - 120		11/02/21 12:53	1
4-Bromofluorobenzene	94		76 - 120		11/02/21 12:53	1
Dibromofluoromethane (Surr)	101		77 - 124		11/02/21 12:53	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 113_FB-6

Lab Sample ID: 460-246107-6

Date Collected: 10/28/21 11:45

Matrix: Water

Date Received: 10/28/21 19:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/02/21 13:14	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/02/21 13:14	1
Acetone	5.0	U	5.0	4.4	ug/L			11/02/21 13:14	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/02/21 13:14	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/02/21 13:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/02/21 13:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/02/21 13:14	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/02/21 13:14	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/02/21 13:14	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/02/21 13:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/02/21 13:14	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/02/21 13:14	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/02/21 13:14	1
Benzene	1.0	U	1.0	0.20	ug/L			11/02/21 13:14	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/02/21 13:14	1
Toluene	1.0	U	1.0	0.38	ug/L			11/02/21 13:14	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/02/21 13:14	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/02/21 13:14	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/02/21 13:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			11/02/21 13:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/02/21 13:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/02/21 13:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			11/02/21 13:14	1
1,4-Dioxane	50	U	50	28	ug/L			11/02/21 13:14	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			11/02/21 13:14	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			11/02/21 13:14	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			11/02/21 13:14	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			11/02/21 13:14	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			11/02/21 13:14	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			11/02/21 13:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 123		11/02/21 13:14	1
Toluene-d8 (Surr)	99		80 - 120		11/02/21 13:14	1
4-Bromofluorobenzene	95		76 - 120		11/02/21 13:14	1
Dibromofluoromethane (Surr)	102		77 - 124		11/02/21 13:14	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.010	U	0.010	0.00029	mg/L		10/29/21 07:46	10/30/21 02:49	1
2-Methylphenol	0.010	U	0.010	0.00067	mg/L		10/29/21 07:46	10/30/21 02:49	1
3 & 4 Methylphenol	0.010	U	0.010	0.00064	mg/L		10/29/21 07:46	10/30/21 02:49	1
Pentachlorophenol	0.020	U	0.020	0.0014	mg/L		10/29/21 07:46	10/30/21 02:49	1
Naphthalene	0.0020	U	0.0020	0.00054	mg/L		10/29/21 07:46	10/30/21 02:49	1
Acenaphthylene	0.010	U	0.010	0.00082	mg/L		10/29/21 07:46	10/30/21 02:49	1
Acenaphthene	0.010	U	0.010	0.0011	mg/L		10/29/21 07:46	10/30/21 02:49	1
Dibenzofuran	0.010	U	0.010	0.0011	mg/L		10/29/21 07:46	10/30/21 02:49	1
Fluorene	0.010	U	0.010	0.00091	mg/L		10/29/21 07:46	10/30/21 02:49	1
Hexachlorobenzene	0.0010	U	0.0010	0.00040	mg/L		10/29/21 07:46	10/30/21 02:49	1
Phenanthrene	0.010	U	0.010	0.0013	mg/L		10/29/21 07:46	10/30/21 02:49	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 113_FB-6

Lab Sample ID: 460-246107-6

Date Collected: 10/28/21 11:45

Matrix: Water

Date Received: 10/28/21 19:30

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.010	U	0.010	0.0013	mg/L		10/29/21 07:46	10/30/21 02:49	1
Fluoranthene	0.010	U	0.010	0.00084	mg/L		10/29/21 07:46	10/30/21 02:49	1
Pyrene	0.010	U	0.010	0.0016	mg/L		10/29/21 07:46	10/30/21 02:49	1
Benzo[a]anthracene	0.0010	U	0.0010	0.00059	mg/L		10/29/21 07:46	10/30/21 02:49	1
Chrysene	0.0020	U	0.0020	0.00091	mg/L		10/29/21 07:46	10/30/21 02:49	1
Benzo[b]fluoranthene	0.0020	U	0.0020	0.00068	mg/L		10/29/21 07:46	10/30/21 02:49	1
Benzo[k]fluoranthene	0.0010	U	0.0010	0.00067	mg/L		10/29/21 07:46	10/30/21 02:49	1
Benzo[a]pyrene	0.0010	U	0.0010	0.00041	mg/L		10/29/21 07:46	10/30/21 02:49	1
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0020	0.00094	mg/L		10/29/21 07:46	10/30/21 02:49	1
Dibenz(a,h)anthracene	0.0010	U	0.0010	0.00072	mg/L		10/29/21 07:46	10/30/21 02:49	1
Benzo[g,h,i]perylene	0.010	U	0.010	0.00070	mg/L		10/29/21 07:46	10/30/21 02:49	1
1,4-Dioxane	10	U	10	1.6	ug/L		10/29/21 07:46	10/30/21 02:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	88		46 - 137	10/29/21 07:46	10/30/21 02:49	1
Phenol-d5 (Surr)	23		10 - 50	10/29/21 07:46	10/30/21 02:49	1
Terphenyl-d14 (Surr)	93		39 - 150	10/29/21 07:46	10/30/21 02:49	1
2,4,6-Tribromophenol (Surr)	47		33 - 150	10/29/21 07:46	10/30/21 02:49	1
2-Fluorophenol (Surr)	38		18 - 72	10/29/21 07:46	10/30/21 02:49	1
2-Fluorobiphenyl	77		42 - 127	10/29/21 07:46	10/30/21 02:49	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 08:03	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		10/29/21 09:50	11/01/21 08:03	1
beta-BHC	0.020	U	0.020	0.015	ug/L		10/29/21 09:50	11/01/21 08:03	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		10/29/21 09:50	11/01/21 08:03	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		10/29/21 09:50	11/01/21 08:03	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		10/29/21 09:50	11/01/21 08:03	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		10/29/21 09:50	11/01/21 08:03	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 08:03	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 08:03	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 08:03	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 08:03	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 08:03	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		10/29/21 09:50	11/01/21 08:03	1
Endrin	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 08:03	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		10/29/21 09:50	11/01/21 08:03	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		10/29/21 09:50	11/01/21 08:03	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 08:03	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		10/29/21 09:50	11/01/21 08:03	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 08:03	1
Toxaphene	0.50	U	0.50	0.11	ug/L		10/29/21 09:50	11/01/21 08:03	1
cis-Chlordane	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 08:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	53		10 - 150	10/29/21 09:50	11/01/21 08:03	1
Tetrachloro-m-xylene	49		10 - 150	10/29/21 09:50	11/01/21 08:03	1
DCB Decachlorobiphenyl	92		10 - 150	10/29/21 09:50	11/01/21 08:03	1
DCB Decachlorobiphenyl	73		10 - 150	10/29/21 09:50	11/01/21 08:03	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 113_FB-6

Lab Sample ID: 460-246107-6

Date Collected: 10/28/21 11:45

Matrix: Water

Date Received: 10/28/21 19:30

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 11:13	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 11:13	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 11:13	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 11:13	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 11:13	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 11:13	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 11:13	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 11:13	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 11:13	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 11:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		10 - 138	10/29/21 09:58	11/01/21 11:13	1
DCB Decachlorobiphenyl	80		10 - 138	10/29/21 09:58	11/01/21 11:13	1
Tetrachloro-m-xylene	48		10 - 150	10/29/21 09:58	11/01/21 11:13	1
Tetrachloro-m-xylene	47		10 - 150	10/29/21 09:58	11/01/21 11:13	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		10/29/21 22:56	11/01/21 08:41	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		10/29/21 22:56	11/01/21 08:41	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		10/29/21 22:56	11/01/21 08:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	78		28 - 150	10/29/21 22:56	11/01/21 08:41	1
2,4-Dichlorophenylacetic acid	83		28 - 150	10/29/21 22:56	11/01/21 08:41	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluoroheptanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorooctanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorononanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorodecanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorotridecanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorotetradecanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorobutanesulfonic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorohexanesulfonic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorooctanesulfonic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
NEtFOSAA	2.64	U	2.64	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
NMeFOSAA	1.76	U	1.76	0.53	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluoroheptanesulfonic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorodecanesulfonic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorooctanesulfonamide	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorobutanoic acid	4.41	U	4.41	1.76	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluoroundecanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluorododecanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1
6:2 Fluorotelomer sulfonic acid	4.41	U	4.41	1.76	ng/L		11/02/21 16:48	11/05/21 02:12	1
8:2 Fluorotelomer sulfonic acid	2.64	U	2.64	0.88	ng/L		11/02/21 16:48	11/05/21 02:12	1
Perfluoropentanoic acid	1.76	U	1.76	0.44	ng/L		11/02/21 16:48	11/05/21 02:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 113_FB-6

Lab Sample ID: 460-246107-6

Date Collected: 10/28/21 11:45

Matrix: Water

Date Received: 10/28/21 19:30

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	172		34 - 182	11/02/21 16:48	11/05/21 02:12	1
M2-6:2 FTS	154		29 - 189	11/02/21 16:48	11/05/21 02:12	1
13C5 PFHxA	160	*	31 - 142	11/02/21 16:48	11/05/21 02:12	1
13C4 PFHpA	165	*	30 - 144	11/02/21 16:48	11/05/21 02:12	1
13C8 PFOA	162	*	49 - 127	11/02/21 16:48	11/05/21 02:12	1
13C9 PFNA	160	*	47 - 136	11/02/21 16:48	11/05/21 02:12	1
13C6 PFDA	173	*	47 - 128	11/02/21 16:48	11/05/21 02:12	1
13C7 PFUnA	168	*	40 - 135	11/02/21 16:48	11/05/21 02:12	1
13C2-PFDoDA	161	*	28 - 136	11/02/21 16:48	11/05/21 02:12	1
13C2 PFTeDA	177	*	10 - 144	11/02/21 16:48	11/05/21 02:12	1
13C3 PFBS	162		19 - 178	11/02/21 16:48	11/05/21 02:12	1
13C3 PFHxS	167	*	32 - 145	11/02/21 16:48	11/05/21 02:12	1
13C8 PFOS	165	*	49 - 126	11/02/21 16:48	11/05/21 02:12	1
d3-NMeFOSAA	164	*	32 - 151	11/02/21 16:48	11/05/21 02:12	1
d5-NEtFOSAA	171	*	37 - 164	11/02/21 16:48	11/05/21 02:12	1
13C8 FOSA	154	*	10 - 143	11/02/21 16:48	11/05/21 02:12	1
13C4 PFBA	161	*	41 - 132	11/02/21 16:48	11/05/21 02:12	1
13C5 PFPeA	154		33 - 155	11/02/21 16:48	11/05/21 02:12	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		11/03/21 09:21	11/04/21 14:37	1
Arsenic	2.0	U	2.0	0.89	ug/L		11/03/21 09:21	11/04/21 14:37	1
Barium	4.0	U	4.0	0.91	ug/L		11/03/21 09:21	11/04/21 14:37	1
Beryllium	0.80	U	0.80	0.13	ug/L		11/03/21 09:21	11/04/21 14:37	1
Cadmium	2.0	U	2.0	0.39	ug/L		11/03/21 09:21	11/04/21 14:37	1
Chromium	4.0	U	4.0	2.5	ug/L		11/03/21 09:21	11/08/21 09:41	1
Copper	4.0	U	4.0	2.5	ug/L		11/03/21 09:21	11/04/21 14:37	1
Manganese	8.0	U	8.0	1.5	ug/L		11/03/21 09:21	11/04/21 14:37	1
Nickel	4.0	U	4.0	0.91	ug/L		11/03/21 09:21	11/04/21 14:37	1
Lead	1.2	U	1.2	0.84	ug/L		11/03/21 09:21	11/04/21 14:37	1
Selenium	2.5	U	2.5	0.59	ug/L		11/03/21 09:21	11/04/21 14:37	1
Zinc	16.0	U	16.0	6.5	ug/L		11/03/21 09:21	11/04/21 14:37	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		11/04/21 12:48	11/04/21 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.0	U	10.0	10.0	ug/L			10/29/21 06:40	1
Cr (VI)	10.0	U	10.0	8.1	ug/L			10/29/21 11:25	1
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		11/03/21 20:02	11/03/21 22:34	1

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-246107-1	108_PE-22	103	93	101	94
460-246107-2	109_PE-23	105	94	102	97
460-246107-3	110_DUP-6	106	96	102	98
460-246107-4	111_PE-6	102	92	99	94
LCS 460-810770/3	Lab Control Sample	101	93	99	96
LCSD 460-810770/4	Lab Control Sample Dup	98	94	96	97
MB 460-810770/8	Method Blank	115	113	117	112

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	BFB (76-120)	TOL (80-120)	DBFM (77-124)
460-246093-B-6 MS	Matrix Spike	94	98	104	97
460-246093-B-6 MSD	Matrix Spike Duplicate	95	101	104	100
460-246107-5	112_TB-7	95	94	102	101
460-246107-6	113_FB-6	100	95	99	102
LCS 460-810788/3	Lab Control Sample	93	97	100	97
MB 460-810788/7	Method Blank	97	96	103	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-245855-C-1-A MS	Matrix Spike	59	63	59	62	61	58
460-245855-C-1-B MSD	Matrix Spike Duplicate	62	63	62	62	62	60
460-246078-E-7-A MS	Matrix Spike	66	67	69	68	66	64
460-246078-E-7-B MSD	Matrix Spike Duplicate	57	57	60	58	56	56
460-246107-1	108_PE-22	59	58	61	62	57	57
460-246107-1 - DL	108_PE-22	49	53	60	63	55	57
460-246107-2	109_PE-23	59	56	60	58	58	56
460-246107-3	110_DUP-6	51	49	54	52	50	48
460-246107-4	111_PE-6	50	49	54	35	50	49
LCS 460-810261/2-A	Lab Control Sample	80	81	83	86	80	79
LCS 460-810262/2-A	Lab Control Sample	81	83	92	85	88	83
LCSD 460-810261/3-A	Lab Control Sample Dup	82	83	84	85	82	79

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
LCSD 460-810262/3-A	Lab Control Sample Dup	81	81	93	86	86	83
MB 460-810261/1-A	Method Blank	79	76	84	80	79	78
MB 460-810262/1-A	Method Blank	87	84	87	83	82	81

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (46-137)	PHL (10-50)	TPHL (39-150)	TBP (33-150)	2FP (18-72)	FBP (42-127)
460-246021-J-3-A MS	Matrix Spike	88	30	82	90	44	81
460-246021-K-3-A MSD	Matrix Spike Duplicate	83	16	79	77	29	77
460-246107-6	113_FB-6	88	23	93	47	38	77
LCS 460-810078/2-A	Lab Control Sample	87	32	91	93	45	83
LCSD 460-810078/3-A	Lab Control Sample Dup	86	31	90	94	45	84
MB 460-810078/1-A	Method Blank	90	29	90	82	45	82

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-246107-1	108_PE-22	110	102	71	62
460-246107-2	109_PE-23	156 *	119	75	72
460-246107-3	110_DUP-6	130	106	85	78
460-246107-4	111_PE-6	150	117	92	84
LCS 460-810503/2-A	Lab Control Sample	104	107	91	91
LCSD 460-810503/3-A	Lab Control Sample Dup	107	95	91	92
MB 460-810503/1-A	Method Blank	122	108	93	90

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TCX1 (10-150)	TCX2 (10-150)	DCBP1 (10-150)	DCBP2 (10-150)
460-246107-6	113_FB-6	49	53	73	92
LCS 460-810113/2-A	Lab Control Sample	69	63	59	70
LCSD 460-810113/3-A	Lab Control Sample Dup	66	60	56	69
MB 460-810113/1-A	Method Blank	65	64	58	72

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-246107-1	108_PE-22	159 *	148	105	98
460-246107-2	109_PE-23	177 *	164 *	112	105
460-246107-3	110_DUP-6	149	146	116	115
460-246107-4	111_PE-6	158 *	144	131	119
LCS 460-810497/2-A	Lab Control Sample	113	105	99	99
LCSD 460-810497/3-A	Lab Control Sample Dup	110	103	97	98
MB 460-810497/1-A	Method Blank	118	112	95	96

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-138)	DCBP2 (10-138)	TCX1 (10-150)	TCX2 (10-150)
460-246107-6	113_FB-6	80	81	47	48
LCS 460-810123/2-A	Lab Control Sample	109	85	98	75
LCSD 460-810123/3-A	Lab Control Sample Dup	97	92	88	86
MB 460-810123/1-A	Method Blank	104	107	94	98

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1 (65-150)	DCPAA2 (65-150)
460-246107-1	108_PE-22	198 *	149
460-246107-2	109_PE-23	185 *	115
460-246107-3	110_DUP-6	202 *	114
460-246107-4	111_PE-6	199 *	119
LCS 460-810745/2-A	Lab Control Sample	97	107

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8151A - Herbicides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
LCSD 460-810745/3-A	Lab Control Sample Dup	104	109
MB 460-810745/1-A	Method Blank	67	74
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (28-150)	DCPAA2 (28-150)
460-246107-6	113_FB-6	78	83
LCS 460-810283/2-A	Lab Control Sample	71	80
LCSD 460-810283/3-A	Lab Control Sample Dup	86	87
MB 460-810283/1-A	Method Blank	72	89
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-246107-1	108_PE-22	110	89	103	105	99	107	108	104
460-246107-2	109_PE-23	120	93	98	104	100	105	106	104
460-246107-3	110_DUP-6	131	114	119	127	119	123	120	116
460-246107-4	111_PE-6	117	95	102	107	112	109	107	108
LCS 410-191052/2-B	Lab Control Sample	143	129	132	134	129	135	133	131
MB 410-191052/1-B	Method Blank	155	144	147 *	146 *	144 *	148 *	146 *	145 *

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-246107-1	108_PE-22	106	104	112	108	107	71	100	101
460-246107-2	109_PE-23	105	103	112	104	104	109	132	103
460-246107-3	110_DUP-6	121	113	125	126	121	109	138	116
460-246107-4	111_PE-6	109	102	122	115	120	27	47	111
LCS 410-191052/2-B	Lab Control Sample	136 *	133	145 *	141 *	133 *	112	129	141 *
MB 410-191052/1-B	Method Blank	144 *	143 *	155 *	154 *	150 *	113	140	146 *

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)
460-246107-1	108_PE-22	105	112
460-246107-2	109_PE-23	104	112
460-246107-3	110_DUP-6	117	128
460-246107-4	111_PE-6	109	119
LCS 410-191052/2-B	Lab Control Sample	134	141 *
MB 410-191052/1-B	Method Blank	148 *	158 *

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (34-182)	M262FTS (29-189)	13C5PHA (31-142)	C4PFHA (30-144)	C8PFOA (49-127)	C9PFNA (47-136)	C6PFDA (47-128)	13C7PUA (40-135)
460-246107-6	113_FB-6	172	154	160 *	165 *	162 *	160 *	173 *	168 *
460-246155-A-2-B MS	Matrix Spike	166	158	151 *	160 *	157 *	149 *	163 *	157 *
460-246155-A-2-C MSD	Matrix Spike Duplicate	159	156	147 *	158 *	151 *	151 *	147 *	147 *
LCS 410-189928/2-A	Lab Control Sample	131	131	142	148 *	147 *	144 *	147 *	143 *
MB 410-189928/1-A	Method Blank	158	154	162 *	173 *	166 *	162 *	163 *	166 *

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (28-136)	PFTDA (10-144)	C3PFBS (19-178)	C3PFHS (32-145)	C8PFOS (49-126)	d3NMFOS (32-151)	d5NEFOS (37-164)	PFOSA (10-143)
460-246107-6	113_FB-6	161 *	177 *	162	167 *	165 *	164 *	171 *	154 *
460-246155-A-2-B MS	Matrix Spike	157 *	153 *	169	155 *	155 *	157 *	165 *	139
460-246155-A-2-C MSD	Matrix Spike Duplicate	145 *	145 *	171	151 *	152 *	139	152	129
LCS 410-189928/2-A	Lab Control Sample	141 *	139	140	144	143 *	145	148	131
MB 410-189928/1-A	Method Blank	162 *	159 *	159	169 *	165 *	157 *	171 *	148 *

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (41-132)	PFPeA (33-155)
460-246107-6	113_FB-6	161 *	154
460-246155-A-2-B MS	Matrix Spike	150 *	150
460-246155-A-2-C MSD	Matrix Spike Duplicate	153 *	152
LCS 410-189928/2-A	Lab Control Sample	145 *	132
MB 410-189928/1-A	Method Blank	166 *	145

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-810770/8

Matrix: Solid

Analysis Batch: 810770

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			11/02/21 06:41	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			11/02/21 06:41	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			11/02/21 06:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			11/02/21 06:41	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			11/02/21 06:41	1
Acetone	6.0	U	6.0	5.7	ug/Kg			11/02/21 06:41	1
Benzene	1.0	U	1.0	0.26	ug/Kg			11/02/21 06:41	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			11/02/21 06:41	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			11/02/21 06:41	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			11/02/21 06:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			11/02/21 06:41	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			11/02/21 06:41	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			11/02/21 06:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			11/02/21 06:41	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			11/02/21 06:41	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			11/02/21 06:41	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			11/02/21 06:41	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			11/02/21 06:41	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			11/02/21 06:41	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			11/02/21 06:41	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			11/02/21 06:41	1
Toluene	1.0	U	1.0	0.23	ug/Kg			11/02/21 06:41	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			11/02/21 06:41	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/02/21 06:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			11/02/21 06:41	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			11/02/21 06:41	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			11/02/21 06:41	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/02/21 06:41	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			11/02/21 06:41	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			11/02/21 06:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		77 - 145		11/02/21 06:41	1
4-Bromofluorobenzene	113		70 - 139		11/02/21 06:41	1
Toluene-d8 (Surr)	112		80 - 120		11/02/21 06:41	1
Dibromofluoromethane (Surr)	117		48 - 150		11/02/21 06:41	1

Lab Sample ID: LCS 460-810770/3

Matrix: Solid

Analysis Batch: 810770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	19.2		ug/Kg		96	77 - 132
1,1-Dichloroethane	20.0	19.0		ug/Kg		95	76 - 129
1,2-Dichloroethane	20.0	17.7		ug/Kg		88	70 - 132
1,1,1-Trichloroethane	20.0	17.6		ug/Kg		88	78 - 132
2-Butanone (MEK)	100	76.8		ug/Kg		77	75 - 120
Acetone	100	84.0		ug/Kg		84	63 - 131

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-810770/3

Matrix: Solid

Analysis Batch: 810770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	18.8		ug/Kg		94	80 - 123
Carbon tetrachloride	20.0	17.4		ug/Kg		87	72 - 136
Chloroform	20.0	18.1		ug/Kg		91	79 - 126
Chlorobenzene	20.0	17.5		ug/Kg		88	80 - 120
cis-1,2-Dichloroethene	20.0	18.9		ug/Kg		94	80 - 123
Ethylbenzene	20.0	17.9		ug/Kg		89	80 - 120
Methylene Chloride	20.0	19.4		ug/Kg		97	76 - 127
m-Xylene & p-Xylene	20.0	18.3		ug/Kg		92	80 - 120
Methyl tert-butyl ether	20.0	18.8		ug/Kg		94	80 - 125
1,3-Dichlorobenzene	20.0	17.9		ug/Kg		89	80 - 120
1,4-Dichlorobenzene	20.0	17.8		ug/Kg		89	80 - 120
o-Xylene	20.0	17.4		ug/Kg		87	80 - 120
1,2-Dichlorobenzene	20.0	18.0		ug/Kg		90	80 - 120
1,4-Dioxane	400	366		ug/Kg		91	73 - 136
1,2,4-Trimethylbenzene	20.0	18.8		ug/Kg		94	79 - 120
Tetrachloroethene	20.0	17.7		ug/Kg		88	78 - 123
1,3,5-Trimethylbenzene	20.0	18.5		ug/Kg		92	79 - 120
Toluene	20.0	17.6		ug/Kg		88	80 - 120
N-Propylbenzene	20.0	19.8		ug/Kg		99	78 - 120
sec-Butylbenzene	20.0	19.6		ug/Kg		98	78 - 120
trans-1,2-Dichloroethene	20.0	19.6		ug/Kg		98	78 - 128
tert-Butylbenzene	20.0	18.3		ug/Kg		91	76 - 120
Trichloroethene	20.0	17.9		ug/Kg		90	79 - 120
n-Butylbenzene	20.0	20.1		ug/Kg		101	77 - 123
Vinyl chloride	20.0	22.2		ug/Kg		111	56 - 147
Xylenes, Total	40.0	35.7		ug/Kg		89	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 145
4-Bromofluorobenzene	93		70 - 139
Toluene-d8 (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	99		48 - 150

Lab Sample ID: LCSD 460-810770/4

Matrix: Solid

Analysis Batch: 810770

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	20.9		ug/Kg		105	77 - 132	8	30
1,1-Dichloroethane	20.0	22.1		ug/Kg		111	76 - 129	15	30
1,2-Dichloroethane	20.0	20.8		ug/Kg		104	70 - 132	16	30
1,1,1-Trichloroethane	20.0	19.4		ug/Kg		97	78 - 132	10	30
2-Butanone (MEK)	100	101		ug/Kg		101	75 - 120	27	30
Acetone	100	108		ug/Kg		108	63 - 131	25	30
Benzene	20.0	21.4		ug/Kg		107	80 - 123	13	30
Carbon tetrachloride	20.0	18.7		ug/Kg		94	72 - 136	7	30
Chloroform	20.0	20.6		ug/Kg		103	79 - 126	13	30
Chlorobenzene	20.0	21.1		ug/Kg		106	80 - 120	19	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-810770/4

Matrix: Solid

Analysis Batch: 810770

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	21.9		ug/Kg		109	80 - 123	15	30
Ethylbenzene	20.0	21.0		ug/Kg		105	80 - 120	16	30
Methylene Chloride	20.0	21.9		ug/Kg		110	76 - 127	12	30
m-Xylene & p-Xylene	20.0	21.2		ug/Kg		106	80 - 120	15	30
Methyl tert-butyl ether	20.0	22.7		ug/Kg		113	80 - 125	19	30
1,3-Dichlorobenzene	20.0	22.3		ug/Kg		111	80 - 120	22	30
1,4-Dichlorobenzene	20.0	21.9		ug/Kg		110	80 - 120	21	30
o-Xylene	20.0	20.8		ug/Kg		104	80 - 120	18	30
1,2-Dichlorobenzene	20.0	22.9		ug/Kg		115	80 - 120	24	30
1,4-Dioxane	400	477		ug/Kg		119	73 - 136	26	30
1,2,4-Trimethylbenzene	20.0	22.6		ug/Kg		113	79 - 120	19	30
Tetrachloroethene	20.0	20.5		ug/Kg		103	78 - 123	15	30
1,3,5-Trimethylbenzene	20.0	22.1		ug/Kg		110	79 - 120	18	30
Toluene	20.0	20.6		ug/Kg		103	80 - 120	16	30
N-Propylbenzene	20.0	24.0		ug/Kg		120	78 - 120	19	30
sec-Butylbenzene	20.0	23.8		ug/Kg		119	78 - 120	19	30
trans-1,2-Dichloroethene	20.0	21.4		ug/Kg		107	78 - 128	9	30
tert-Butylbenzene	20.0	21.7		ug/Kg		108	76 - 120	17	30
Trichloroethene	20.0	19.7		ug/Kg		99	79 - 120	9	30
n-Butylbenzene	20.0	24.3		ug/Kg		121	77 - 123	19	30
Vinyl chloride	20.0	23.0		ug/Kg		115	56 - 147	3	30
Xylenes, Total	40.0	42.1		ug/Kg		105	80 - 120	16	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		77 - 145
4-Bromofluorobenzene	94		70 - 139
Toluene-d8 (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	96		48 - 150

Lab Sample ID: MB 460-810788/7

Matrix: Water

Analysis Batch: 810788

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/02/21 09:23	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/02/21 09:23	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/02/21 09:23	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/02/21 09:23	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/02/21 09:23	1
Acetone	5.0	U	5.0	4.4	ug/L			11/02/21 09:23	1
Benzene	1.0	U	1.0	0.20	ug/L			11/02/21 09:23	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/02/21 09:23	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/02/21 09:23	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/02/21 09:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/02/21 09:23	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/02/21 09:23	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/02/21 09:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			11/02/21 09:23	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-810788/7

Matrix: Water

Analysis Batch: 810788

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/02/21 09:23	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/02/21 09:23	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			11/02/21 09:23	1
1,4-Dioxane	50	U	50	28	ug/L			11/02/21 09:23	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			11/02/21 09:23	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/02/21 09:23	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			11/02/21 09:23	1
Toluene	1.0	U	1.0	0.38	ug/L			11/02/21 09:23	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			11/02/21 09:23	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			11/02/21 09:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/02/21 09:23	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			11/02/21 09:23	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/02/21 09:23	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			11/02/21 09:23	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/02/21 09:23	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/02/21 09:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 123		11/02/21 09:23	1
4-Bromofluorobenzene	96		76 - 120		11/02/21 09:23	1
Toluene-d8 (Surr)	103		80 - 120		11/02/21 09:23	1
Dibromofluoromethane (Surr)	103		77 - 124		11/02/21 09:23	1

Lab Sample ID: LCS 460-810788/3

Matrix: Water

Analysis Batch: 810788

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	20.2		ug/L		101	68 - 133
1,1-Dichloroethane	20.0	18.9		ug/L		94	73 - 130
1,2-Dichloroethane	20.0	19.8		ug/L		99	75 - 121
1,1,1-Trichloroethane	20.0	19.6		ug/L		98	68 - 128
2-Butanone (MEK)	100	103		ug/L		103	69 - 128
Acetone	100	99.8		ug/L		100	61 - 134
Benzene	20.0	20.7		ug/L		104	78 - 126
Carbon tetrachloride	20.0	21.4		ug/L		107	56 - 131
Chloroform	20.0	19.2		ug/L		96	78 - 125
Chlorobenzene	20.0	19.1		ug/L		95	80 - 119
cis-1,2-Dichloroethene	20.0	18.5		ug/L		92	78 - 121
Ethylbenzene	20.0	19.7		ug/L		99	78 - 120
Methylene Chloride	20.0	19.7		ug/L		98	74 - 127
m-Xylene & p-Xylene	20.0	20.0		ug/L		100	78 - 123
Methyl tert-butyl ether	20.0	19.1		ug/L		95	65 - 131
1,3-Dichlorobenzene	20.0	18.8		ug/L		94	80 - 121
1,4-Dichlorobenzene	20.0	18.9		ug/L		95	80 - 118
o-Xylene	20.0	19.5		ug/L		98	78 - 122
1,2-Dichlorobenzene	20.0	18.8		ug/L		94	79 - 122
1,4-Dioxane	400	343		ug/L		86	70 - 142

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-810788/3

Matrix: Water

Analysis Batch: 810788

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	19.8		ug/L		99	75 - 125
Tetrachloroethene	20.0	20.2		ug/L		101	70 - 127
1,3,5-Trimethylbenzene	20.0	19.9		ug/L		100	75 - 125
Toluene	20.0	20.7		ug/L		103	78 - 119
N-Propylbenzene	20.0	20.3		ug/L		102	74 - 129
sec-Butylbenzene	20.0	19.9		ug/L		100	73 - 129
trans-1,2-Dichloroethene	20.0	20.1		ug/L		100	74 - 126
tert-Butylbenzene	20.0	18.9		ug/L		95	72 - 124
Trichloroethene	20.0	20.3		ug/L		101	71 - 121
n-Butylbenzene	20.0	20.4		ug/L		102	69 - 135
Vinyl chloride	20.0	19.3		ug/L		96	61 - 144
Xylenes, Total	40.0	39.5		ug/L		99	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		75 - 123
4-Bromofluorobenzene	97		76 - 120
Toluene-d8 (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	97		77 - 124

Lab Sample ID: 460-246093-B-6 MS

Matrix: Water

Analysis Batch: 810788

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.0	U	20.0	16.8		ug/L		84	68 - 133
1,1-Dichloroethane	1.0	U	20.0	18.7		ug/L		93	73 - 130
1,2-Dichloroethane	1.0	U	20.0	20.6		ug/L		103	75 - 121
1,1,1-Trichloroethane	1.0	U	20.0	19.6		ug/L		98	68 - 128
2-Butanone (MEK)	5.0	U	100	96.3		ug/L		96	69 - 128
Acetone	11		100	94.0		ug/L		83	61 - 134
Benzene	1.0	U	20.0	20.1		ug/L		100	78 - 126
Carbon tetrachloride	1.0	U	20.0	20.3		ug/L		101	56 - 131
Chloroform	1.0	U	20.0	18.7		ug/L		94	78 - 125
Chlorobenzene	1.0	U	20.0	19.6		ug/L		98	80 - 119
cis-1,2-Dichloroethene	1.0	U	20.0	19.0		ug/L		95	78 - 121
Ethylbenzene	1.0	U	20.0	19.6		ug/L		98	78 - 120
Methylene Chloride	1.0	U	20.0	19.4		ug/L		97	74 - 127
m-Xylene & p-Xylene	1.0	U	20.0	20.3		ug/L		101	78 - 123
Methyl tert-butyl ether	1.0	U	20.0	19.2		ug/L		96	65 - 131
1,3-Dichlorobenzene	1.0	U	20.0	17.7		ug/L		88	80 - 121
1,4-Dichlorobenzene	1.0	U	20.0	18.0		ug/L		90	80 - 118
o-Xylene	1.0	U	20.0	18.4		ug/L		92	78 - 122
1,2-Dichlorobenzene	1.0	U	20.0	18.9		ug/L		94	79 - 122
1,4-Dioxane	50	U	400	345		ug/L		86	70 - 142
1,2,4-Trimethylbenzene	3.2		20.0	21.9		ug/L		94	75 - 125
Tetrachloroethene	1.0	U	20.0	19.7		ug/L		99	70 - 127
1,3,5-Trimethylbenzene	1.0	U	20.0	18.8		ug/L		94	75 - 125
Toluene	1.0	U	20.0	20.1		ug/L		101	78 - 119

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-246093-B-6 MS

Matrix: Water

Analysis Batch: 810788

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	2.5		20.0	22.3		ug/L		99	74 - 129
sec-Butylbenzene	0.43	J	20.0	19.6		ug/L		96	73 - 129
trans-1,2-Dichloroethene	1.0	U	20.0	18.8		ug/L		94	74 - 126
tert-Butylbenzene	1.0	U	20.0	18.6		ug/L		93	72 - 124
Trichloroethene	1.0	U	20.0	18.9		ug/L		94	71 - 121
n-Butylbenzene	1.2		20.0	21.4		ug/L		101	69 - 135
Vinyl chloride	1.0	U	20.0	18.5		ug/L		93	61 - 144
Xylenes, Total	2.0	U	40.0	38.6		ug/L		97	78 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		75 - 123
4-Bromofluorobenzene	98		76 - 120
Toluene-d8 (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	97		77 - 124

Lab Sample ID: 460-246093-B-6 MSD

Matrix: Water

Analysis Batch: 810788

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	1.0	U	20.0	19.5		ug/L		98	68 - 133	15	30
1,1-Dichloroethane	1.0	U	20.0	19.9		ug/L		100	73 - 130	7	30
1,2-Dichloroethane	1.0	U	20.0	20.6		ug/L		103	75 - 121	0	30
1,1,1-Trichloroethane	1.0	U	20.0	20.5		ug/L		102	68 - 128	4	30
2-Butanone (MEK)	5.0	U	100	115		ug/L		115	69 - 128	18	30
Acetone	11		100	99.8		ug/L		88	61 - 134	6	30
Benzene	1.0	U	20.0	22.1		ug/L		110	78 - 126	9	30
Carbon tetrachloride	1.0	U	20.0	22.0		ug/L		110	56 - 131	8	30
Chloroform	1.0	U	20.0	19.3		ug/L		96	78 - 125	3	30
Chlorobenzene	1.0	U	20.0	21.1		ug/L		106	80 - 119	7	30
cis-1,2-Dichloroethene	1.0	U	20.0	18.8		ug/L		94	78 - 121	1	30
Ethylbenzene	1.0	U	20.0	20.8		ug/L		104	78 - 120	6	30
Methylene Chloride	1.0	U	20.0	19.3		ug/L		96	74 - 127	0	30
m-Xylene & p-Xylene	1.0	U	20.0	21.9		ug/L		110	78 - 123	8	30
Methyl tert-butyl ether	1.0	U	20.0	19.8		ug/L		99	65 - 131	3	30
1,3-Dichlorobenzene	1.0	U	20.0	18.2		ug/L		91	80 - 121	3	30
1,4-Dichlorobenzene	1.0	U	20.0	18.9		ug/L		95	80 - 118	5	30
o-Xylene	1.0	U	20.0	19.9		ug/L		100	78 - 122	8	30
1,2-Dichlorobenzene	1.0	U	20.0	20.2		ug/L		101	79 - 122	7	30
1,4-Dioxane	50	U	400	371		ug/L		93	70 - 142	7	30
1,2,4-Trimethylbenzene	3.2		20.0	23.1		ug/L		99	75 - 125	5	30
Tetrachloroethene	1.0	U	20.0	21.2		ug/L		106	70 - 127	7	30
1,3,5-Trimethylbenzene	1.0	U	20.0	20.3		ug/L		101	75 - 125	7	30
Toluene	1.0	U	20.0	21.8		ug/L		109	78 - 119	8	30
N-Propylbenzene	2.5		20.0	23.7		ug/L		106	74 - 129	6	30
sec-Butylbenzene	0.43	J	20.0	21.1		ug/L		104	73 - 129	8	30
trans-1,2-Dichloroethene	1.0	U	20.0	19.5		ug/L		97	74 - 126	4	30
tert-Butylbenzene	1.0	U	20.0	18.9		ug/L		94	72 - 124	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-246093-B-6 MSD

Matrix: Water

Analysis Batch: 810788

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	1.0	U	20.0	19.2		ug/L		96	71 - 121	2	30
n-Butylbenzene	1.2		20.0	22.3		ug/L		105	69 - 135	4	30
Vinyl chloride	1.0	U	20.0	19.7		ug/L		99	61 - 144	6	30
Xylenes, Total	2.0	U	40.0	41.9		ug/L		105	78 - 122	8	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		75 - 123
4-Bromofluorobenzene	101		76 - 120
Toluene-d8 (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	100		77 - 124

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-810078/1-A

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.010	U	0.010	0.00029	mg/L		10/29/21 07:46	10/29/21 19:32	1
2-Methylphenol	0.010	U	0.010	0.00067	mg/L		10/29/21 07:46	10/29/21 19:32	1
3 & 4 Methylphenol	0.010	U	0.010	0.00064	mg/L		10/29/21 07:46	10/29/21 19:32	1
Pentachlorophenol	0.020	U	0.020	0.0014	mg/L		10/29/21 07:46	10/29/21 19:32	1
Naphthalene	0.0020	U	0.0020	0.00054	mg/L		10/29/21 07:46	10/29/21 19:32	1
Acenaphthylene	0.010	U	0.010	0.00082	mg/L		10/29/21 07:46	10/29/21 19:32	1
Acenaphthene	0.010	U	0.010	0.0011	mg/L		10/29/21 07:46	10/29/21 19:32	1
Dibenzofuran	0.010	U	0.010	0.0011	mg/L		10/29/21 07:46	10/29/21 19:32	1
Fluorene	0.010	U	0.010	0.00091	mg/L		10/29/21 07:46	10/29/21 19:32	1
Hexachlorobenzene	0.0010	U	0.0010	0.00040	mg/L		10/29/21 07:46	10/29/21 19:32	1
Phenanthrene	0.010	U	0.010	0.0013	mg/L		10/29/21 07:46	10/29/21 19:32	1
Anthracene	0.010	U	0.010	0.0013	mg/L		10/29/21 07:46	10/29/21 19:32	1
Fluoranthene	0.010	U	0.010	0.00084	mg/L		10/29/21 07:46	10/29/21 19:32	1
Pyrene	0.010	U	0.010	0.0016	mg/L		10/29/21 07:46	10/29/21 19:32	1
Benzo[a]anthracene	0.0010	U	0.0010	0.00059	mg/L		10/29/21 07:46	10/29/21 19:32	1
Chrysene	0.0020	U	0.0020	0.00091	mg/L		10/29/21 07:46	10/29/21 19:32	1
Benzo[b]fluoranthene	0.0020	U	0.0020	0.00068	mg/L		10/29/21 07:46	10/29/21 19:32	1
Benzo[k]fluoranthene	0.0010	U	0.0010	0.00067	mg/L		10/29/21 07:46	10/29/21 19:32	1
Benzo[a]pyrene	0.0010	U	0.0010	0.00041	mg/L		10/29/21 07:46	10/29/21 19:32	1
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0020	0.00094	mg/L		10/29/21 07:46	10/29/21 19:32	1
Dibenz(a,h)anthracene	0.0010	U	0.0010	0.00072	mg/L		10/29/21 07:46	10/29/21 19:32	1
Benzo[g,h,i]perylene	0.010	U	0.010	0.00070	mg/L		10/29/21 07:46	10/29/21 19:32	1
1,4-Dioxane	10	U	10	1.6	ug/L		10/29/21 07:46	10/29/21 19:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	90		46 - 137	10/29/21 07:46	10/29/21 19:32	1
Phenol-d5 (Surr)	29		10 - 50	10/29/21 07:46	10/29/21 19:32	1
Terphenyl-d14 (Surr)	90		39 - 150	10/29/21 07:46	10/29/21 19:32	1
2,4,6-Tribromophenol (Surr)	82		33 - 150	10/29/21 07:46	10/29/21 19:32	1
2-Fluorophenol (Surr)	45		18 - 72	10/29/21 07:46	10/29/21 19:32	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-810078/1-A

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810078

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		42 - 127	10/29/21 07:46	10/29/21 19:32	1

Lab Sample ID: LCS 460-810078/2-A

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0800	0.0288		mg/L		36	20 - 50
2-Methylphenol	0.0800	0.0517		mg/L		65	48 - 88
3 & 4 Methylphenol	0.0800	0.0431		mg/L		54	43 - 78
Pentachlorophenol	0.160	0.119		mg/L		75	54 - 131
Naphthalene	0.0800	0.0685		mg/L		86	58 - 105
Acenaphthylene	0.0800	0.0667		mg/L		83	64 - 109
Acenaphthene	0.0800	0.0536		mg/L		67	60 - 110
Dibenzofuran	0.0800	0.0648		mg/L		81	66 - 109
Fluorene	0.0800	0.0637		mg/L		80	65 - 111
Hexachlorobenzene	0.0800	0.0676		mg/L		84	61 - 117
Phenanthrene	0.0800	0.0638		mg/L		80	65 - 108
Anthracene	0.0800	0.0643		mg/L		80	65 - 109
Fluoranthene	0.0800	0.0703		mg/L		88	65 - 113
Pyrene	0.0800	0.0634		mg/L		79	54 - 114
Benzo[a]anthracene	0.0800	0.0653		mg/L		82	62 - 106
Chrysene	0.0800	0.0685		mg/L		86	63 - 108
Benzo[b]fluoranthene	0.0800	0.0726		mg/L		91	66 - 125
Benzo[k]fluoranthene	0.0800	0.0792		mg/L		99	64 - 125
Benzo[a]pyrene	0.0800	0.0814		mg/L		102	66 - 127
Indeno[1,2,3-cd]pyrene	0.0800	0.0584		mg/L		73	54 - 150
Dibenz(a,h)anthracene	0.0800	0.0639		mg/L		80	55 - 150
Benzo[g,h,i]perylene	0.0800	0.0605		mg/L		76	49 - 149
1,4-Dioxane	80.0	37.4		ug/L		47	26 - 69

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	87		46 - 137
Phenol-d5 (Surr)	32		10 - 50
Terphenyl-d14 (Surr)	91		39 - 150
2,4,6-Tribromophenol (Surr)	93		33 - 150
2-Fluorophenol (Surr)	45		18 - 72
2-Fluorobiphenyl	83		42 - 127

Lab Sample ID: LCSD 460-810078/3-A

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810078

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.0800	0.0289		mg/L		36	20 - 50	0	30
2-Methylphenol	0.0800	0.0530		mg/L		66	48 - 88	3	30
3 & 4 Methylphenol	0.0800	0.0436		mg/L		55	43 - 78	1	30
Pentachlorophenol	0.160	0.115		mg/L		72	54 - 131	3	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-810078/3-A

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810078

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	0.0800	0.0668		mg/L		83	58 - 105	2	30
Acenaphthylene	0.0800	0.0662		mg/L		83	64 - 109	1	30
Acenaphthene	0.0800	0.0547		mg/L		68	60 - 110	2	30
Dibenzofuran	0.0800	0.0653		mg/L		82	66 - 109	1	30
Fluorene	0.0800	0.0645		mg/L		81	65 - 111	1	30
Hexachlorobenzene	0.0800	0.0658		mg/L		82	61 - 117	3	30
Phenanthrene	0.0800	0.0637		mg/L		80	65 - 108	0	30
Anthracene	0.0800	0.0649		mg/L		81	65 - 109	1	30
Fluoranthene	0.0800	0.0706		mg/L		88	65 - 113	0	30
Pyrene	0.0800	0.0647		mg/L		81	54 - 114	2	30
Benzo[a]anthracene	0.0800	0.0655		mg/L		82	62 - 106	0	30
Chrysene	0.0800	0.0664		mg/L		83	63 - 108	3	30
Benzo[b]fluoranthene	0.0800	0.0738		mg/L		92	66 - 125	2	30
Benzo[k]fluoranthene	0.0800	0.0789		mg/L		99	64 - 125	0	30
Benzo[a]pyrene	0.0800	0.0825		mg/L		103	66 - 127	1	30
Indeno[1,2,3-cd]pyrene	0.0800	0.0600		mg/L		75	54 - 150	3	30
Dibenz(a,h)anthracene	0.0800	0.0661		mg/L		83	55 - 150	3	30
Benzo[g,h,i]perylene	0.0800	0.0651		mg/L		81	49 - 149	7	30
1,4-Dioxane	80.0	37.8		ug/L		47	26 - 69	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	86		46 - 137
Phenol-d5 (Surr)	31		10 - 50
Terphenyl-d14 (Surr)	90		39 - 150
2,4,6-Tribromophenol (Surr)	94		33 - 150
2-Fluorophenol (Surr)	45		18 - 72
2-Fluorobiphenyl	84		42 - 127

Lab Sample ID: 460-246021-J-3-A MS

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 810078

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.010	U	0.0800	0.0253		mg/L		32	20 - 50
2-Methylphenol	0.010	U	0.0800	0.0515		mg/L		64	48 - 88
3 & 4 Methylphenol	0.010	U	0.0800	0.0413		mg/L		52	43 - 78
Pentachlorophenol	0.020	U	0.160	0.117		mg/L		73	54 - 131
Naphthalene	0.0020	U	0.0800	0.0675		mg/L		84	58 - 105
Acenaphthylene	0.010	U	0.0800	0.0653		mg/L		82	64 - 109
Acenaphthene	0.010	U	0.0800	0.0523		mg/L		65	60 - 110
Dibenzofuran	0.010	U	0.0800	0.0624		mg/L		78	66 - 109
Fluorene	0.010	U	0.0800	0.0618		mg/L		77	65 - 111
Hexachlorobenzene	0.0010	U	0.0800	0.0629		mg/L		79	61 - 117
Phenanthrene	0.010	U	0.0800	0.0626		mg/L		78	65 - 108
Anthracene	0.010	U	0.0800	0.0641		mg/L		80	65 - 109
Fluoranthene	0.010	U	0.0800	0.0665		mg/L		83	65 - 113
Pyrene	0.010	U	0.0800	0.0628		mg/L		79	54 - 114
Benzo[a]anthracene	0.0010	U	0.0800	0.0638		mg/L		80	62 - 106

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-246021-J-3-A MS

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 810078

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	0.0020	U	0.0800	0.0661		mg/L		83	63 - 108
Benzo[b]fluoranthene	0.0020	U	0.0800	0.0877		mg/L		110	66 - 125
Benzo[k]fluoranthene	0.0010	U	0.0800	0.0948		mg/L		118	64 - 125
Benzo[a]pyrene	0.0010	U	0.0800	0.0929		mg/L		116	66 - 127
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0800	0.0693		mg/L		87	54 - 150
Dibenz(a,h)anthracene	0.0010	U	0.0800	0.0771		mg/L		96	55 - 150
Benzo[g,h,i]perylene	0.010	U	0.0800	0.0710		mg/L		89	49 - 149
1,4-Dioxane	6.8	J	80.0	43.8		ug/L		46	26 - 69

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	88		46 - 137
Phenol-d5 (Surr)	30		10 - 50
Terphenyl-d14 (Surr)	82		39 - 150
2,4,6-Tribromophenol (Surr)	90		33 - 150
2-Fluorophenol (Surr)	44		18 - 72
2-Fluorobiphenyl	81		42 - 127

Lab Sample ID: 460-246021-K-3-A MSD

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 810078

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.010	U	0.0800	0.0149	*	mg/L		19	20 - 50	52	30
2-Methylphenol	0.010	U	0.0800	0.0334	*	mg/L		42	48 - 88	43	30
3 & 4 Methylphenol	0.010	U	0.0800	0.0237	*	mg/L		30	43 - 78	54	30
Pentachlorophenol	0.020	U	0.160	0.0916		mg/L		57	54 - 131	24	30
Naphthalene	0.0020	U	0.0800	0.0606		mg/L		76	58 - 105	11	30
Acenaphthylene	0.010	U	0.0800	0.0601		mg/L		75	64 - 109	8	30
Acenaphthene	0.010	U	0.0800	0.0481		mg/L		60	60 - 110	8	30
Dibenzofuran	0.010	U	0.0800	0.0573		mg/L		72	66 - 109	9	30
Fluorene	0.010	U	0.0800	0.0565		mg/L		71	65 - 111	9	30
Hexachlorobenzene	0.0010	U	0.0800	0.0589		mg/L		74	61 - 117	7	30
Phenanthrene	0.010	U	0.0800	0.0576		mg/L		72	65 - 108	8	30
Anthracene	0.010	U	0.0800	0.0579		mg/L		72	65 - 109	10	30
Fluoranthene	0.010	U	0.0800	0.0621		mg/L		78	65 - 113	7	30
Pyrene	0.010	U	0.0800	0.0550		mg/L		69	54 - 114	13	30
Benzo[a]anthracene	0.0010	U	0.0800	0.0570		mg/L		71	62 - 106	11	30
Chrysene	0.0020	U	0.0800	0.0587		mg/L		73	63 - 108	12	30
Benzo[b]fluoranthene	0.0020	U	0.0800	0.0648		mg/L		81	66 - 125	30	30
Benzo[k]fluoranthene	0.0010	U	0.0800	0.0664	*	mg/L		83	64 - 125	35	30
Benzo[a]pyrene	0.0010	U	0.0800	0.0705		mg/L		88	66 - 127	27	30
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0800	0.0527		mg/L		66	54 - 150	27	30
Dibenz(a,h)anthracene	0.0010	U	0.0800	0.0568		mg/L		71	55 - 150	30	30
Benzo[g,h,i]perylene	0.010	U	0.0800	0.0541		mg/L		68	49 - 149	27	30
1,4-Dioxane	6.8	J	80.0	42.8		ug/L		45	26 - 69	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	83		46 - 137

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-246021-K-3-A MSD

Matrix: Water

Analysis Batch: 810241

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 810078

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Phenol-d5 (Surr)	16		10 - 50
Terphenyl-d14 (Surr)	79		39 - 150
2,4,6-Tribromophenol (Surr)	77		33 - 150
2-Fluorophenol (Surr)	29		18 - 72
2-Fluorobiphenyl	77		42 - 127

Lab Sample ID: MB 460-810261/1-A

Matrix: Solid

Analysis Batch: 810400

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810261

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
2-Methylphenol	330	U	330	12	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Pentachlorophenol	270	U	270	68	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Naphthalene	330	U	330	5.7	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Acenaphthylene	330	U	330	3.3	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Acenaphthene	330	U	330	9.4	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Dibenzofuran	330	U	330	4.6	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Fluorene	330	U	330	4.5	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Hexachlorobenzene	33	U	33	16	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Phenanthrene	330	U	330	5.8	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Anthracene	330	U	330	10	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Fluoranthene	330	U	330	12	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Pyrene	330	U	330	8.2	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Chrysene	330	U	330	5.6	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		10/29/21 19:09	10/30/21 15:07	1
1,4-Dioxane	33	U	33	29	ug/Kg		10/29/21 19:09	10/30/21 15:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	79		11 - 104	10/29/21 19:09	10/30/21 15:07	1
Phenol-d5 (Surr)	76		15 - 100	10/29/21 19:09	10/30/21 15:07	1
Terphenyl-d14 (Surr)	84		12 - 126	10/29/21 19:09	10/30/21 15:07	1
2,4,6-Tribromophenol (Surr)	80		10 - 123	10/29/21 19:09	10/30/21 15:07	1
2-Fluorophenol (Surr)	79		10 - 105	10/29/21 19:09	10/30/21 15:07	1
2-Fluorobiphenyl	78		14 - 103	10/29/21 19:09	10/30/21 15:07	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-810261/2-A

Matrix: Solid

Analysis Batch: 810400

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810261

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	3000		ug/Kg		90	63 - 110
2-Methylphenol	3330	2920		ug/Kg		88	63 - 108
3 & 4 Methylphenol	3330	2880		ug/Kg		86	61 - 108
Pentachlorophenol	6670	6120		ug/Kg		92	44 - 126
Naphthalene	3330	2870		ug/Kg		86	63 - 106
Acenaphthylene	3330	2950		ug/Kg		89	64 - 108
Acenaphthene	3330	2860		ug/Kg		86	53 - 110
Dibenzofuran	3330	2910		ug/Kg		87	65 - 108
Fluorene	3330	2940		ug/Kg		88	65 - 109
Hexachlorobenzene	3330	3010		ug/Kg		90	61 - 113
Phenanthrene	3330	2980		ug/Kg		89	66 - 112
Anthracene	3330	2990		ug/Kg		90	67 - 114
Fluoranthene	3330	3030		ug/Kg		91	61 - 106
Pyrene	3330	2980		ug/Kg		89	61 - 111
Benzo[a]anthracene	3330	3000		ug/Kg		90	67 - 115
Chrysene	3330	2900		ug/Kg		87	71 - 122
Benzo[b]fluoranthene	3330	3350		ug/Kg		100	70 - 125
Benzo[k]fluoranthene	3330	3240		ug/Kg		97	67 - 115
Benzo[a]pyrene	3330	3380		ug/Kg		101	73 - 123
Indeno[1,2,3-cd]pyrene	3330	2770		ug/Kg		83	62 - 121
Dibenz(a,h)anthracene	3330	3170		ug/Kg		95	66 - 119
Benzo[g,h,i]perylene	3330	2470		ug/Kg		74	61 - 113
1,4-Dioxane	3330	1770		ug/Kg		53	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	80		11 - 104
Phenol-d5 (Surr)	81		15 - 100
Terphenyl-d14 (Surr)	83		12 - 126
2,4,6-Tribromophenol (Surr)	86		10 - 123
2-Fluorophenol (Surr)	80		10 - 105
2-Fluorobiphenyl	79		14 - 103

Lab Sample ID: LCSD 460-810261/3-A

Matrix: Solid

Analysis Batch: 810400

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810261

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	3100		ug/Kg		93	63 - 110	3	30
2-Methylphenol	3330	2940		ug/Kg		88	63 - 108	1	30
3 & 4 Methylphenol	3330	2970		ug/Kg		89	61 - 108	3	30
Pentachlorophenol	6670	6000		ug/Kg		90	44 - 126	2	30
Naphthalene	3330	2900		ug/Kg		87	63 - 106	1	30
Acenaphthylene	3330	2950		ug/Kg		88	64 - 108	0	30
Acenaphthene	3330	2870		ug/Kg		86	53 - 110	0	30
Dibenzofuran	3330	2880		ug/Kg		87	65 - 108	1	30
Fluorene	3330	2930		ug/Kg		88	65 - 109	0	30
Hexachlorobenzene	3330	3000		ug/Kg		90	61 - 113	0	30
Phenanthrene	3330	3010		ug/Kg		90	66 - 112	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-810261/3-A

Matrix: Solid

Analysis Batch: 810400

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810261

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	3330	3030		ug/Kg		91	67 - 114	1	30
Fluoranthene	3330	3060		ug/Kg		92	61 - 106	1	30
Pyrene	3330	3030		ug/Kg		91	61 - 111	2	30
Benzo[a]anthracene	3330	3050		ug/Kg		91	67 - 115	2	30
Chrysene	3330	3000		ug/Kg		90	71 - 122	3	30
Benzo[b]fluoranthene	3330	3270		ug/Kg		98	70 - 125	2	30
Benzo[k]fluoranthene	3330	3240		ug/Kg		97	67 - 115	0	30
Benzo[a]pyrene	3330	3390		ug/Kg		102	73 - 123	0	30
Indeno[1,2,3-cd]pyrene	3330	3050		ug/Kg		91	62 - 121	9	30
Dibenz(a,h)anthracene	3330	3500		ug/Kg		105	66 - 119	10	30
Benzo[g,h,i]perylene	3330	3030		ug/Kg		91	61 - 113	21	30
1,4-Dioxane	3330	1870		ug/Kg		56	31 - 81	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Nitrobenzene-d5 (Surr)	82		11 - 104
Phenol-d5 (Surr)	83		15 - 100
Terphenyl-d14 (Surr)	84		12 - 126
2,4,6-Tribromophenol (Surr)	85		10 - 123
2-Fluorophenol (Surr)	82		10 - 105
2-Fluorobiphenyl	79		14 - 103

Lab Sample ID: 460-245855-C-1-A MS

Matrix: Solid

Analysis Batch: 810400

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 810261

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	370	U	3780	2680		ug/Kg	✱	71	63 - 110
2-Methylphenol	370	U	3780	2560		ug/Kg	✱	68	63 - 108
3 & 4 Methylphenol	370	U	3780	2520		ug/Kg	✱	67	61 - 108
Pentachlorophenol	300	U	7560	4180		ug/Kg	✱	55	44 - 126
Naphthalene	92	J	3780	2460		ug/Kg	✱	63	63 - 106
Acenaphthylene	140	J	3780	2500	*	ug/Kg	✱	62	64 - 108
Acenaphthene	54	J	3780	2490		ug/Kg	✱	65	53 - 110
Dibenzofuran	66	J	3780	2500	*	ug/Kg	✱	64	65 - 108
Fluorene	85	J	3780	2530		ug/Kg	✱	65	65 - 109
Hexachlorobenzene	37	U	3780	2200	*	ug/Kg	✱	58	61 - 113
Phenanthrene	1000		3780	3440	*	ug/Kg	✱	63	66 - 112
Anthracene	170	J	3780	2650	*	ug/Kg	✱	65	67 - 114
Fluoranthene	1900		3780	3750	*	ug/Kg	✱	49	61 - 106
Pyrene	1600		3780	3540	*	ug/Kg	✱	52	61 - 111
Benzo[a]anthracene	900		3780	3050	*	ug/Kg	✱	57	67 - 115
Chrysene	1000		3780	2900	*	ug/Kg	✱	50	71 - 122
Benzo[b]fluoranthene	1300		3780	3360	*	ug/Kg	✱	55	70 - 125
Benzo[k]fluoranthene	490		3780	2740	*	ug/Kg	✱	60	67 - 115
Benzo[a]pyrene	880		3780	3050	*	ug/Kg	✱	57	73 - 123
Indeno[1,2,3-cd]pyrene	810		3780	2780	*	ug/Kg	✱	52	62 - 121
Dibenz(a,h)anthracene	110		3780	2770		ug/Kg	✱	70	66 - 119
Benzo[g,h,i]perylene	490		3780	2480	*	ug/Kg	✱	53	61 - 113

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-245855-C-1-A MS

Matrix: Solid

Analysis Batch: 810400

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 810261

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	37	U	3780	1600		ug/Kg	✱	42	31 - 81
Surrogate	MS %Recovery	MS Qualifier	Limits						
Nitrobenzene-d5 (Surr)	59		11 - 104						
Phenol-d5 (Surr)	63		15 - 100						
Terphenyl-d14 (Surr)	59		12 - 126						
2,4,6-Tribromophenol (Surr)	62		10 - 123						
2-Fluorophenol (Surr)	61		10 - 105						
2-Fluorobiphenyl	58		14 - 103						

Lab Sample ID: 460-245855-C-1-B MSD

Matrix: Solid

Analysis Batch: 810400

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 810261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Phenol	370	U	3780	2670		ug/Kg	✱	71	63 - 110	0	30
2-Methylphenol	370	U	3780	2570		ug/Kg	✱	68	63 - 108	0	30
3 & 4 Methylphenol	370	U	3780	2580		ug/Kg	✱	68	61 - 108	3	30
Pentachlorophenol	300	U	7560	3780		ug/Kg	✱	50	44 - 126	10	30
Naphthalene	92	J	3780	2550		ug/Kg	✱	65	63 - 106	4	30
Acenaphthylene	140	J	3780	2610		ug/Kg	✱	65	64 - 108	4	30
Acenaphthene	54	J	3780	2520		ug/Kg	✱	65	53 - 110	1	30
Dibenzofuran	66	J	3780	2560		ug/Kg	✱	66	65 - 108	2	30
Fluorene	85	J	3780	2550		ug/Kg	✱	65	65 - 109	1	30
Hexachlorobenzene	37	U	3780	2380		ug/Kg	✱	63	61 - 113	8	30
Phenanthrene	1000		3780	3180	*	ug/Kg	✱	57	66 - 112	8	30
Anthracene	170	J	3780	2640	*	ug/Kg	✱	65	67 - 114	0	30
Fluoranthene	1900		3780	3590	*	ug/Kg	✱	45	61 - 106	4	30
Pyrene	1600		3780	3460	*	ug/Kg	✱	50	61 - 111	2	30
Benzo[a]anthracene	900		3780	3010	*	ug/Kg	✱	56	67 - 115	2	30
Chrysene	1000		3780	2900	*	ug/Kg	✱	50	71 - 122	0	30
Benzo[b]fluoranthene	1300		3780	3400	*	ug/Kg	✱	56	70 - 125	1	30
Benzo[k]fluoranthene	490		3780	2900	*	ug/Kg	✱	64	67 - 115	6	30
Benzo[a]pyrene	880		3780	3260	*	ug/Kg	✱	63	73 - 123	7	30
Indeno[1,2,3-cd]pyrene	810		3780	3080	*	ug/Kg	✱	60	62 - 121	10	30
Dibenz(a,h)anthracene	110		3780	2950		ug/Kg	✱	75	66 - 119	6	30
Benzo[g,h,i]perylene	490		3780	2690	*	ug/Kg	✱	58	61 - 113	8	30
1,4-Dioxane	37	U	3780	1450		ug/Kg	✱	38	31 - 81	10	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5 (Surr)	62		11 - 104								
Phenol-d5 (Surr)	63		15 - 100								
Terphenyl-d14 (Surr)	62		12 - 126								
2,4,6-Tribromophenol (Surr)	62		10 - 123								
2-Fluorophenol (Surr)	62		10 - 105								
2-Fluorobiphenyl	60		14 - 103								

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-810262/1-A

Matrix: Solid

Analysis Batch: 810280

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810262

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
2-Methylphenol	330	U	330	12	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Pentachlorophenol	270	U	270	68	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Naphthalene	330	U	330	5.7	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Acenaphthylene	330	U	330	3.3	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Acenaphthene	330	U	330	9.4	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Dibenzofuran	330	U	330	4.6	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Fluorene	330	U	330	4.5	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Hexachlorobenzene	33	U	33	16	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Phenanthrene	330	U	330	5.8	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Anthracene	330	U	330	10	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Fluoranthene	330	U	330	12	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Pyrene	330	U	330	8.2	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Chrysene	330	U	330	5.6	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		10/29/21 19:25	10/30/21 00:40	1
1,4-Dioxane	33	U	33	29	ug/Kg		10/29/21 19:25	10/30/21 00:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	87		11 - 104	10/29/21 19:25	10/30/21 00:40	1
Phenol-d5 (Surr)	84		15 - 100	10/29/21 19:25	10/30/21 00:40	1
Terphenyl-d14 (Surr)	87		12 - 126	10/29/21 19:25	10/30/21 00:40	1
2,4,6-Tribromophenol (Surr)	83		10 - 123	10/29/21 19:25	10/30/21 00:40	1
2-Fluorophenol (Surr)	82		10 - 105	10/29/21 19:25	10/30/21 00:40	1
2-Fluorobiphenyl	81		14 - 103	10/29/21 19:25	10/30/21 00:40	1

Lab Sample ID: LCS 460-810262/2-A

Matrix: Solid

Analysis Batch: 810403

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810262

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	3060		ug/Kg		92	63 - 110
2-Methylphenol	3330	3060		ug/Kg		92	63 - 108
3 & 4 Methylphenol	3330	2970		ug/Kg		89	61 - 108
Pentachlorophenol	6670	6440		ug/Kg		97	44 - 126
Naphthalene	3330	3110		ug/Kg		93	63 - 106
Acenaphthylene	3330	3020		ug/Kg		91	64 - 108
Acenaphthene	3330	3020		ug/Kg		91	53 - 110
Dibenzofuran	3330	3020		ug/Kg		91	65 - 108
Fluorene	3330	3040		ug/Kg		91	65 - 109
Hexachlorobenzene	3330	3240		ug/Kg		97	61 - 113
Phenanthrene	3330	3130		ug/Kg		94	66 - 112

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-810262/2-A

Matrix: Solid

Analysis Batch: 810403

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810262

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	3330	3120		ug/Kg		94	67 - 114
Fluoranthene	3330	3100		ug/Kg		93	61 - 106
Pyrene	3330	3350		ug/Kg		101	61 - 111
Benzo[a]anthracene	3330	3130		ug/Kg		94	67 - 115
Chrysene	3330	3170		ug/Kg		95	71 - 122
Benzo[b]fluoranthene	3330	3320		ug/Kg		100	70 - 125
Benzo[k]fluoranthene	3330	3310		ug/Kg		99	67 - 115
Benzo[a]pyrene	3330	3310		ug/Kg		99	73 - 123
Indeno[1,2,3-cd]pyrene	3330	3150		ug/Kg		94	62 - 121
Dibenz(a,h)anthracene	3330	3210		ug/Kg		96	66 - 119
Benzo[g,h,i]perylene	3330	3040		ug/Kg		91	61 - 113
1,4-Dioxane	3330	1830		ug/Kg		55	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	81		11 - 104
Phenol-d5 (Surr)	83		15 - 100
Terphenyl-d14 (Surr)	92		12 - 126
2,4,6-Tribromophenol (Surr)	85		10 - 123
2-Fluorophenol (Surr)	88		10 - 105
2-Fluorobiphenyl	83		14 - 103

Lab Sample ID: LCSD 460-810262/3-A

Matrix: Solid

Analysis Batch: 810403

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810262

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	3040		ug/Kg		91	63 - 110	1	30
2-Methylphenol	3330	3020		ug/Kg		90	63 - 108	1	30
3 & 4 Methylphenol	3330	2930		ug/Kg		88	61 - 108	2	30
Pentachlorophenol	6670	6490		ug/Kg		97	44 - 126	1	30
Naphthalene	3330	3120		ug/Kg		93	63 - 106	0	30
Acenaphthylene	3330	3090		ug/Kg		93	64 - 108	2	30
Acenaphthene	3330	3070		ug/Kg		92	53 - 110	2	30
Dibenzofuran	3330	3080		ug/Kg		92	65 - 108	2	30
Fluorene	3330	3040		ug/Kg		91	65 - 109	0	30
Hexachlorobenzene	3330	3300		ug/Kg		99	61 - 113	2	30
Phenanthrene	3330	3110		ug/Kg		93	66 - 112	1	30
Anthracene	3330	3130		ug/Kg		94	67 - 114	0	30
Fluoranthene	3330	3060		ug/Kg		92	61 - 106	1	30
Pyrene	3330	3360		ug/Kg		101	61 - 111	0	30
Benzo[a]anthracene	3330	3110		ug/Kg		93	67 - 115	1	30
Chrysene	3330	3210		ug/Kg		96	71 - 122	1	30
Benzo[b]fluoranthene	3330	3350		ug/Kg		101	70 - 125	1	30
Benzo[k]fluoranthene	3330	3310		ug/Kg		99	67 - 115	0	30
Benzo[a]pyrene	3330	3340		ug/Kg		100	73 - 123	1	30
Indeno[1,2,3-cd]pyrene	3330	3190		ug/Kg		96	62 - 121	1	30
Dibenz(a,h)anthracene	3330	3220		ug/Kg		97	66 - 119	0	30
Benzo[g,h,i]perylene	3330	3080		ug/Kg		92	61 - 113	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-810262/3-A

Matrix: Solid

Analysis Batch: 810403

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810262

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	3330	1820		ug/Kg		55	31 - 81	1	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Nitrobenzene-d5 (Surr)	81		11 - 104						
Phenol-d5 (Surr)	81		15 - 100						
Terphenyl-d14 (Surr)	93		12 - 126						
2,4,6-Tribromophenol (Surr)	86		10 - 123						
2-Fluorophenol (Surr)	86		10 - 105						
2-Fluorobiphenyl	83		14 - 103						

Lab Sample ID: 460-246078-E-7-A MS

Matrix: Solid

Analysis Batch: 810280

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 810262

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	370	U	3760	2820		ug/Kg	✱	75	63 - 110
2-Methylphenol	370	U	3760	2670		ug/Kg	✱	71	63 - 108
3 & 4 Methylphenol	370	U	3760	2600		ug/Kg	✱	69	61 - 108
Pentachlorophenol	300	U	7520	5220		ug/Kg	✱	69	44 - 126
Naphthalene	370	U	3760	2630		ug/Kg	✱	70	63 - 106
Acenaphthylene	370	U	3760	2680		ug/Kg	✱	71	64 - 108
Acenaphthene	370	U	3760	2630		ug/Kg	✱	70	53 - 110
Dibenzofuran	370	U	3760	2670		ug/Kg	✱	71	65 - 108
Fluorene	370	U	3760	2670		ug/Kg	✱	71	65 - 109
Hexachlorobenzene	37	U	3760	2740		ug/Kg	✱	73	61 - 113
Phenanthrene	370	U	3760	2670		ug/Kg	✱	71	66 - 112
Anthracene	370	U	3760	2740		ug/Kg	✱	73	67 - 114
Fluoranthene	370	U	3760	2740		ug/Kg	✱	73	61 - 106
Pyrene	370	U	3760	2740		ug/Kg	✱	73	61 - 111
Benzo[a]anthracene	37	U	3760	2730		ug/Kg	✱	73	67 - 115
Chrysene	370	U	3760	2740		ug/Kg	✱	73	71 - 122
Benzo[b]fluoranthene	37	U	3760	2920		ug/Kg	✱	78	70 - 125
Benzo[k]fluoranthene	37	U	3760	2920		ug/Kg	✱	78	67 - 115
Benzo[a]pyrene	37	U	3760	2990		ug/Kg	✱	79	73 - 123
Indeno[1,2,3-cd]pyrene	37	U	3760	2680		ug/Kg	✱	71	62 - 121
Dibenz(a,h)anthracene	37	U	3760	3090		ug/Kg	✱	82	66 - 119
Benzo[g,h,i]perylene	370	U	3760	2720		ug/Kg	✱	72	61 - 113
1,4-Dioxane	37	U	3760	1970		ug/Kg	✱	52	31 - 81
Surrogate	MS %Recovery	MS Qualifier	Limits						
Nitrobenzene-d5 (Surr)	66		11 - 104						
Phenol-d5 (Surr)	67		15 - 100						
Terphenyl-d14 (Surr)	69		12 - 126						
2,4,6-Tribromophenol (Surr)	68		10 - 123						
2-Fluorophenol (Surr)	66		10 - 105						
2-Fluorobiphenyl	64		14 - 103						

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-246078-E-7-B MSD

Matrix: Solid

Analysis Batch: 810280

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 810262

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	370	U	3760	2460		ug/Kg	✱	65	63 - 110	14	30
2-Methylphenol	370	U	3760	2300	*	ug/Kg	✱	61	63 - 108	15	30
3 & 4 Methylphenol	370	U	3760	2300		ug/Kg	✱	61	61 - 108	12	30
Pentachlorophenol	300	U	7520	4490		ug/Kg	✱	60	44 - 126	15	30
Naphthalene	370	U	3760	2300	*	ug/Kg	✱	61	63 - 106	13	30
Acenaphthylene	370	U	3760	2330	*	ug/Kg	✱	62	64 - 108	14	30
Acenaphthene	370	U	3760	2320		ug/Kg	✱	62	53 - 110	13	30
Dibenzofuran	370	U	3760	2350	*	ug/Kg	✱	63	65 - 108	13	30
Fluorene	370	U	3760	2350	*	ug/Kg	✱	62	65 - 109	13	30
Hexachlorobenzene	37	U	3760	2390		ug/Kg	✱	63	61 - 113	14	30
Phenanthrene	370	U	3760	2370	*	ug/Kg	✱	63	66 - 112	12	30
Anthracene	370	U	3760	2390	*	ug/Kg	✱	64	67 - 114	13	30
Fluoranthene	370	U	3760	2410		ug/Kg	✱	64	61 - 106	13	30
Pyrene	370	U	3760	2410		ug/Kg	✱	64	61 - 111	13	30
Benzo[a]anthracene	37	U	3760	2410	*	ug/Kg	✱	64	67 - 115	12	30
Chrysene	370	U	3760	2410	*	ug/Kg	✱	64	71 - 122	13	30
Benzo[b]fluoranthene	37	U	3760	2600	*	ug/Kg	✱	69	70 - 125	12	30
Benzo[k]fluoranthene	37	U	3760	2590		ug/Kg	✱	69	67 - 115	12	30
Benzo[a]pyrene	37	U	3760	2700	*	ug/Kg	✱	72	73 - 123	10	30
Indeno[1,2,3-cd]pyrene	37	U	3760	2390		ug/Kg	✱	64	62 - 121	11	30
Dibenz(a,h)anthracene	37	U	3760	2760		ug/Kg	✱	73	66 - 119	11	30
Benzo[g,h,i]perylene	370	U	3760	2410		ug/Kg	✱	64	61 - 113	12	30
1,4-Dioxane	37	U	3760	1490		ug/Kg	✱	40	31 - 81	28	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	57		11 - 104
Phenol-d5 (Surr)	57		15 - 100
Terphenyl-d14 (Surr)	60		12 - 126
2,4,6-Tribromophenol (Surr)	58		10 - 123
2-Fluorophenol (Surr)	56		10 - 105
2-Fluorobiphenyl	56		14 - 103

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-810113/1-A

Matrix: Water

Analysis Batch: 810571

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 04:46	1
Aldrin	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 04:46	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		10/29/21 09:50	11/01/21 04:46	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		10/29/21 09:50	11/01/21 04:46	1
beta-BHC	0.020	U	0.020	0.015	ug/L		10/29/21 09:50	11/01/21 04:46	1
beta-BHC	0.020	U	0.020	0.015	ug/L		10/29/21 09:50	11/01/21 04:46	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		10/29/21 09:50	11/01/21 04:46	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		10/29/21 09:50	11/01/21 04:46	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		10/29/21 09:50	11/01/21 04:46	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-810113/1-A

Matrix: Water

Analysis Batch: 810571

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		10/29/21 09:50	11/01/21 04:46	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 04:46	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 04:46	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 04:46	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 04:46	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		10/29/21 09:50	11/01/21 04:46	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		10/29/21 09:50	11/01/21 04:46	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 04:46	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endrin	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endrin	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		10/29/21 09:50	11/01/21 04:46	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		10/29/21 09:50	11/01/21 04:46	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		10/29/21 09:50	11/01/21 04:46	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		10/29/21 09:50	11/01/21 04:46	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 04:46	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		10/29/21 09:50	11/01/21 04:46	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		10/29/21 09:50	11/01/21 04:46	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		10/29/21 09:50	11/01/21 04:46	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 04:46	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		10/29/21 09:50	11/01/21 04:46	1
Toxaphene	0.50	U	0.50	0.11	ug/L		10/29/21 09:50	11/01/21 04:46	1
Toxaphene	0.50	U	0.50	0.11	ug/L		10/29/21 09:50	11/01/21 04:46	1
cis-Chlordane	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 04:46	1
cis-Chlordane	0.020	U	0.020	0.0020	ug/L		10/29/21 09:50	11/01/21 04:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		10 - 150	10/29/21 09:50	11/01/21 04:46	1
Tetrachloro-m-xylene	65		10 - 150	10/29/21 09:50	11/01/21 04:46	1
DCB Decachlorobiphenyl	72		10 - 150	10/29/21 09:50	11/01/21 04:46	1
DCB Decachlorobiphenyl	58		10 - 150	10/29/21 09:50	11/01/21 04:46	1

Lab Sample ID: LCS 460-810113/2-A

Matrix: Water

Analysis Batch: 810571

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.800	0.757		ug/L		95	53 - 142
Aldrin	0.800	0.806		ug/L		101	53 - 142
alpha-BHC	0.800	0.773		ug/L		97	65 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-810113/2-A

Matrix: Water

Analysis Batch: 810571

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC	0.800	0.850		ug/L		106	65 - 134
beta-BHC	0.800	0.803		ug/L		100	72 - 141
beta-BHC	0.800	0.858		ug/L		107	72 - 141
4,4'-DDD	0.800	0.753		ug/L		94	67 - 135
4,4'-DDD	0.800	0.769		ug/L		96	67 - 135
4,4'-DDE	0.800	0.730		ug/L		91	65 - 135
4,4'-DDE	0.800	0.770		ug/L		96	65 - 135
4,4'-DDT	0.800	0.779		ug/L		97	62 - 136
4,4'-DDT	0.800	0.800		ug/L		100	62 - 136
delta-BHC	0.800	0.760		ug/L		95	41 - 147
delta-BHC	0.800	0.826		ug/L		103	41 - 147
Dieldrin	0.800	0.752		ug/L		94	66 - 133
Dieldrin	0.800	0.777		ug/L		97	66 - 133
Endosulfan I	0.800	0.735		ug/L		92	64 - 132
Endosulfan I	0.800	0.759		ug/L		95	64 - 132
Endosulfan II	0.800	0.758		ug/L		95	67 - 134
Endosulfan II	0.800	0.752		ug/L		94	67 - 134
Endosulfan sulfate	0.800	0.811		ug/L		101	47 - 158
Endosulfan sulfate	0.800	0.742		ug/L		93	47 - 158
Endrin	0.800	0.766		ug/L		96	67 - 132
Endrin	0.800	0.802		ug/L		100	67 - 132
Endrin aldehyde	0.800	0.757		ug/L		95	54 - 132
Endrin aldehyde	0.800	0.711		ug/L		89	54 - 132
Endrin ketone	0.800	0.922		ug/L		115	68 - 132
Endrin ketone	0.800	0.860		ug/L		107	68 - 132
gamma-BHC (Lindane)	0.800	0.792		ug/L		99	65 - 134
gamma-BHC (Lindane)	0.800	0.850		ug/L		106	65 - 134
Heptachlor	0.800	0.783		ug/L		98	63 - 128
Heptachlor	0.800	0.840		ug/L		105	63 - 128
Heptachlor epoxide	0.800	0.740		ug/L		92	66 - 128
Heptachlor epoxide	0.800	0.767		ug/L		96	66 - 128
Methoxychlor	0.800	0.728		ug/L		91	42 - 151
Methoxychlor	0.800	0.692		ug/L		87	42 - 151
cis-Chlordane	0.800	0.743		ug/L		93	64 - 130
cis-Chlordane	0.800	0.790		ug/L		99	64 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	63		10 - 150
Tetrachloro-m-xylene	69		10 - 150
DCB Decachlorobiphenyl	70		10 - 150
DCB Decachlorobiphenyl	59		10 - 150

Lab Sample ID: LCSD 460-810113/3-A

Matrix: Water

Analysis Batch: 810571

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810113

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	0.800	0.751		ug/L		94	53 - 142	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-810113/3-A

Matrix: Water

Analysis Batch: 810571

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810113

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	0.800	0.792		ug/L		99	53 - 142	2	30
alpha-BHC	0.800	0.766		ug/L		96	65 - 134	1	30
alpha-BHC	0.800	0.825		ug/L		103	65 - 134	3	30
beta-BHC	0.800	0.774		ug/L		97	72 - 141	4	30
beta-BHC	0.800	0.842		ug/L		105	72 - 141	2	30
4,4'-DDD	0.800	0.758		ug/L		95	67 - 135	1	30
4,4'-DDD	0.800	0.765		ug/L		96	67 - 135	0	30
4,4'-DDE	0.800	0.730		ug/L		91	65 - 135	0	30
4,4'-DDE	0.800	0.758		ug/L		95	65 - 135	2	30
4,4'-DDT	0.800	0.785		ug/L		98	62 - 136	1	30
4,4'-DDT	0.800	0.798		ug/L		100	62 - 136	0	30
delta-BHC	0.800	0.754		ug/L		94	41 - 147	1	30
delta-BHC	0.800	0.811		ug/L		101	41 - 147	2	30
Dieldrin	0.800	0.752		ug/L		94	66 - 133	0	30
Dieldrin	0.800	0.773		ug/L		97	66 - 133	1	30
Endosulfan I	0.800	0.718		ug/L		90	64 - 132	2	30
Endosulfan I	0.800	0.749		ug/L		94	64 - 132	1	30
Endosulfan II	0.800	0.763		ug/L		95	67 - 134	1	30
Endosulfan II	0.800	0.747		ug/L		93	67 - 134	1	30
Endosulfan sulfate	0.800	0.824		ug/L		103	47 - 158	2	30
Endosulfan sulfate	0.800	0.741		ug/L		93	47 - 158	0	30
Endrin	0.800	0.768		ug/L		96	67 - 132	0	30
Endrin	0.800	0.794		ug/L		99	67 - 132	1	30
Endrin aldehyde	0.800	0.774		ug/L		97	54 - 132	2	30
Endrin aldehyde	0.800	0.715		ug/L		89	54 - 132	1	30
Endrin ketone	0.800	0.935		ug/L		117	68 - 132	1	30
Endrin ketone	0.800	0.860		ug/L		107	68 - 132	0	30
gamma-BHC (Lindane)	0.800	0.771		ug/L		96	65 - 134	3	30
gamma-BHC (Lindane)	0.800	0.828		ug/L		103	65 - 134	3	30
Heptachlor	0.800	0.773		ug/L		97	63 - 128	1	30
Heptachlor	0.800	0.821		ug/L		103	63 - 128	2	30
Heptachlor epoxide	0.800	0.737		ug/L		92	66 - 128	0	30
Heptachlor epoxide	0.800	0.744		ug/L		93	66 - 128	3	30
Methoxychlor	0.800	0.742		ug/L		93	42 - 151	2	30
Methoxychlor	0.800	0.693		ug/L		87	42 - 151	0	30
cis-Chlordane	0.800	0.724		ug/L		91	64 - 130	2	30
cis-Chlordane	0.800	0.772		ug/L		96	64 - 130	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Tetrachloro-m-xylene	60		10 - 150
Tetrachloro-m-xylene	66		10 - 150
DCB Decachlorobiphenyl	69		10 - 150
DCB Decachlorobiphenyl	56		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-810503/1-A

Matrix: Solid

Analysis Batch: 810578

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810503

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Chlordane (technical)	67	U	67	16	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Chlordane (technical)	67	U	67	16	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin	6.7	U	6.7	0.96	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin	6.7	U	6.7	0.96	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Toxaphene	67	U	67	24	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
Toxaphene	67	U	67	24	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		10/31/21 08:58	11/01/21 12:18	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		10/31/21 08:58	11/01/21 12:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		10 - 133	10/31/21 08:58	11/01/21 12:18	1
Tetrachloro-m-xylene	93		10 - 133	10/31/21 08:58	11/01/21 12:18	1
DCB Decachlorobiphenyl	108		10 - 150	10/31/21 08:58	11/01/21 12:18	1
DCB Decachlorobiphenyl	122		10 - 150	10/31/21 08:58	11/01/21 12:18	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 460-810503/2-A

Matrix: Solid

Analysis Batch: 810578

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810503

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	133	131		ug/Kg		99	74 - 140
Aldrin	133	153		ug/Kg		115	74 - 140
alpha-BHC	133	128		ug/Kg		96	72 - 142
alpha-BHC	133	155		ug/Kg		117	72 - 142
beta-BHC	133	150		ug/Kg		113	65 - 137
beta-BHC	133	164		ug/Kg		123	65 - 137
4,4'-DDD	133	132		ug/Kg		99	70 - 140
4,4'-DDD	133	165		ug/Kg		124	70 - 140
4,4'-DDE	133	135		ug/Kg		101	71 - 137
4,4'-DDE	133	158		ug/Kg		118	71 - 137
4,4'-DDT	133	130		ug/Kg		97	63 - 131
4,4'-DDT	133	147		ug/Kg		110	63 - 131
delta-BHC	133	132		ug/Kg		99	70 - 143
delta-BHC	133	150		ug/Kg		112	70 - 143
Dieldrin	133	136		ug/Kg		102	70 - 135
Dieldrin	133	165		ug/Kg		123	70 - 135
Endosulfan I	133	138		ug/Kg		104	68 - 135
Endosulfan I	133	161		ug/Kg		121	68 - 135
Endosulfan II	133	147		ug/Kg		110	64 - 130
Endosulfan II	133	173		ug/Kg		130	64 - 130
Endosulfan sulfate	133	148		ug/Kg		111	66 - 143
Endosulfan sulfate	133	172		ug/Kg		129	66 - 143
Endrin	133	132		ug/Kg		99	68 - 136
Endrin	133	159		ug/Kg		119	68 - 136
Endrin aldehyde	133	143		ug/Kg		107	68 - 132
Endrin aldehyde	133	168		ug/Kg		126	68 - 132
Endrin ketone	133	148		ug/Kg		111	60 - 150
Endrin ketone	133	163		ug/Kg		122	60 - 150
gamma-BHC (Lindane)	133	135		ug/Kg		101	70 - 134
gamma-BHC (Lindane)	133	152		ug/Kg		114	70 - 134
Heptachlor	133	130		ug/Kg		98	69 - 134
Heptachlor	133	152		ug/Kg		114	69 - 134
Heptachlor epoxide	133	134		ug/Kg		100	70 - 135
Heptachlor epoxide	133	156		ug/Kg		117	70 - 135
Methoxychlor	133	119		ug/Kg		89	57 - 135
Methoxychlor	133	120		ug/Kg		90	57 - 135
cis-Chlordane	133	135		ug/Kg		101	70 - 136
cis-Chlordane	133	158		ug/Kg		119	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	91		10 - 133
Tetrachloro-m-xylene	91		10 - 133
DCB Decachlorobiphenyl	107		10 - 150
DCB Decachlorobiphenyl	104		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-810503/3-A

Matrix: Solid

Analysis Batch: 810578

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810503

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	133	133		ug/Kg		100	74 - 140	1	30
Aldrin	133	157		ug/Kg		118	74 - 140	3	30
alpha-BHC	133	133		ug/Kg		99	72 - 142	4	30
alpha-BHC	133	158		ug/Kg		119	72 - 142	2	30
beta-BHC	133	156		ug/Kg		117	65 - 137	4	30
beta-BHC	133	167		ug/Kg		125	65 - 137	2	30
4,4'-DDD	133	129		ug/Kg		97	70 - 140	2	30
4,4'-DDD	133	168		ug/Kg		126	70 - 140	2	30
4,4'-DDE	133	137		ug/Kg		103	71 - 137	1	30
4,4'-DDE	133	163		ug/Kg		122	71 - 137	3	30
4,4'-DDT	133	124		ug/Kg		93	63 - 131	5	30
4,4'-DDT	133	150		ug/Kg		112	63 - 131	2	30
delta-BHC	133	137		ug/Kg		103	70 - 143	3	30
delta-BHC	133	153		ug/Kg		115	70 - 143	2	30
Dieldrin	133	138		ug/Kg		103	70 - 135	1	30
Dieldrin	133	170		ug/Kg		127	70 - 135	3	30
Endosulfan I	133	141		ug/Kg		105	68 - 135	2	30
Endosulfan I	133	166		ug/Kg		125	68 - 135	3	30
Endosulfan II	133	144		ug/Kg		108	64 - 130	2	30
Endosulfan II	133	177 *		ug/Kg		132	64 - 130	2	30
Endosulfan sulfate	133	141		ug/Kg		106	66 - 143	5	30
Endosulfan sulfate	133	174		ug/Kg		131	66 - 143	2	30
Endrin	133	131		ug/Kg		98	68 - 136	1	30
Endrin	133	163		ug/Kg		122	68 - 136	2	30
Endrin aldehyde	133	137		ug/Kg		103	68 - 132	4	30
Endrin aldehyde	133	171		ug/Kg		128	68 - 132	2	30
Endrin ketone	133	149		ug/Kg		112	60 - 150	1	30
Endrin ketone	133	165		ug/Kg		124	60 - 150	1	30
gamma-BHC (Lindane)	133	139		ug/Kg		104	70 - 134	3	30
gamma-BHC (Lindane)	133	156		ug/Kg		117	70 - 134	2	30
Heptachlor	133	135		ug/Kg		101	69 - 134	3	30
Heptachlor	133	156		ug/Kg		117	69 - 134	3	30
Heptachlor epoxide	133	137		ug/Kg		103	70 - 135	3	30
Heptachlor epoxide	133	161		ug/Kg		121	70 - 135	3	30
Methoxychlor	133	120		ug/Kg		90	57 - 135	1	30
Methoxychlor	133	121		ug/Kg		91	57 - 135	1	30
cis-Chlordane	133	136		ug/Kg		102	70 - 136	1	30
cis-Chlordane	133	164		ug/Kg		123	70 - 136	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	92		10 - 133
Tetrachloro-m-xylene	91		10 - 133
DCB Decachlorobiphenyl	95		10 - 150
DCB Decachlorobiphenyl	107		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-810123/1-A

Matrix: Water

Analysis Batch: 810581

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810123

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1016	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 09:14	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		10/29/21 09:58	11/01/21 09:14	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		10/29/21 09:58	11/01/21 09:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	107		10 - 138	10/29/21 09:58	11/01/21 09:14	1
DCB Decachlorobiphenyl	104		10 - 138	10/29/21 09:58	11/01/21 09:14	1
Tetrachloro-m-xylene	98		10 - 150	10/29/21 09:58	11/01/21 09:14	1
Tetrachloro-m-xylene	94		10 - 150	10/29/21 09:58	11/01/21 09:14	1

Lab Sample ID: LCS 460-810123/2-A

Matrix: Water

Analysis Batch: 810581

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	4.00	3.02		ug/L		75	66 - 141
Aroclor 1016	4.00	3.48		ug/L		87	66 - 141
Aroclor 1260	4.00	3.29		ug/L		82	66 - 142
Aroclor 1260	4.00	4.14		ug/L		103	66 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	85		10 - 138
DCB Decachlorobiphenyl	109		10 - 138
Tetrachloro-m-xylene	75		10 - 150
Tetrachloro-m-xylene	98		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-810123/3-A

Matrix: Water

Analysis Batch: 810581

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810123

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	4.00	3.62		ug/L		91	66 - 141	4	30
Aroclor 1016	4.00	3.43		ug/L		86	66 - 141	13	30
Aroclor 1260	4.00	3.68		ug/L		92	66 - 142	11	30
Aroclor 1260	4.00	3.72		ug/L		93	66 - 142	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	92		10 - 138
DCB Decachlorobiphenyl	97		10 - 138
Tetrachloro-m-xylene	86		10 - 150
Tetrachloro-m-xylene	88		10 - 150

Lab Sample ID: MB 460-810497/1-A

Matrix: Solid

Analysis Batch: 810692

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1016	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1221	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1221	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1232	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1232	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1242	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1242	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1248	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1248	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1254	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1254	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1260	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1260	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor-1262	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor-1262	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1268	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Aroclor 1268	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		10/31/21 08:47	11/01/21 18:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		37 - 150	10/31/21 08:47	11/01/21 18:23	1
DCB Decachlorobiphenyl	118		37 - 150	10/31/21 08:47	11/01/21 18:23	1
Tetrachloro-m-xylene	96		54 - 150	10/31/21 08:47	11/01/21 18:23	1
Tetrachloro-m-xylene	95		54 - 150	10/31/21 08:47	11/01/21 18:23	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-810497/2-A

Matrix: Solid

Analysis Batch: 810692

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	407		ug/Kg		122	65 - 133
Aroclor 1016	333	389		ug/Kg		117	65 - 133
Aroclor 1260	333	424		ug/Kg		127	71 - 150
Aroclor 1260	333	419		ug/Kg		126	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	105		37 - 150
DCB Decachlorobiphenyl	113		37 - 150
Tetrachloro-m-xylene	99		54 - 150
Tetrachloro-m-xylene	99		54 - 150

Lab Sample ID: LCSD 460-810497/3-A

Matrix: Solid

Analysis Batch: 810692

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	333	403		ug/Kg		121	65 - 133	1	30
Aroclor 1016	333	385		ug/Kg		115	65 - 133	1	30
Aroclor 1260	333	415		ug/Kg		125	71 - 150	2	30
Aroclor 1260	333	415		ug/Kg		124	71 - 150	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	103		37 - 150
DCB Decachlorobiphenyl	110		37 - 150
Tetrachloro-m-xylene	98		54 - 150
Tetrachloro-m-xylene	97		54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-810283/1-A

Matrix: Water

Analysis Batch: 810596

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810283

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		10/29/21 22:56	11/01/21 06:57	1
2,4-D	1.2	U	1.2	0.13	ug/L		10/29/21 22:56	11/01/21 06:57	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		10/29/21 22:56	11/01/21 06:57	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		10/29/21 22:56	11/01/21 06:57	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		10/29/21 22:56	11/01/21 06:57	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		10/29/21 22:56	11/01/21 06:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	72		28 - 150	10/29/21 22:56	11/01/21 06:57	1
2,4-Dichlorophenylacetic acid	89		28 - 150	10/29/21 22:56	11/01/21 06:57	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 460-810283/2-A

Matrix: Water

Analysis Batch: 810596

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810283

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	4.00	4.81		ug/L		120	36 - 139
2,4-D	4.00	4.25		ug/L		106	36 - 139
Silvex (2,4,5-TP)	1.00	1.41		ug/L		141	42 - 150
Silvex (2,4,5-TP)	1.00	1.35		ug/L		135	42 - 150
2,4,5-T	1.00	1.25		ug/L		125	45 - 150
2,4,5-T	1.00	1.23		ug/L		123	45 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	71		28 - 150
2,4-Dichlorophenylacetic acid	80		28 - 150

Lab Sample ID: LCSD 460-810283/3-A

Matrix: Water

Analysis Batch: 810596

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810283

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-D	4.00	5.50		ug/L		138	36 - 139	14	30
2,4-D	4.00	5.18		ug/L		130	36 - 139	20	30
Silvex (2,4,5-TP)	1.00	1.44		ug/L		144	42 - 150	2	30
Silvex (2,4,5-TP)	1.00	1.35		ug/L		135	42 - 150	0	30
2,4,5-T	1.00	1.43		ug/L		143	45 - 150	15	30
2,4,5-T	1.00	1.49		ug/L		149	45 - 150	17	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	86		28 - 150
2,4-Dichlorophenylacetic acid	87		28 - 150

Lab Sample ID: MB 460-810745/1-A

Matrix: Solid

Analysis Batch: 810800

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 810745

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		11/01/21 23:16	11/02/21 11:37	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		11/01/21 23:16	11/02/21 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	67		65 - 150	11/01/21 23:16	11/02/21 11:37	1
2,4-Dichlorophenylacetic acid	74		65 - 150	11/01/21 23:16	11/02/21 11:37	1

Lab Sample ID: LCS 460-810745/2-A

Matrix: Solid

Analysis Batch: 810800

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	8.33	14.9	J *	ug/Kg		179	58 - 150
Silvex (2,4,5-TP)	8.33	11.1	J	ug/Kg		133	58 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 460-810745/2-A

Matrix: Solid

Analysis Batch: 810800

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 810745

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	97		65 - 150
2,4-Dichlorophenylacetic acid	107		65 - 150

Lab Sample ID: LCSD 460-810745/3-A

Matrix: Solid

Analysis Batch: 810800

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 810745

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	8.33	15.6	J *	ug/Kg		187	58 - 150	4	30
Silvex (2,4,5-TP)	8.33	11.2	J	ug/Kg		135	58 - 150	2	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	104		65 - 150
2,4-Dichlorophenylacetic acid	109		65 - 150

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-189928/1-A

Matrix: Water

Analysis Batch: 190722

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 189928

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluoroheptanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorooctanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorononanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorodecanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorotridecanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorotetradecanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorohexanesulfonic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorooctanesulfonic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
NEtFOSAA	3.00	U	3.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
NMeFOSAA	2.00	U	2.00	0.60	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluoroheptanesulfonic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorodecanesulfonic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorooctanesulfonamide	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorobutanoic acid	5.00	U	5.00	2.00	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluoroundecanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluorododecanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1
6:2 Fluorotelomer sulfonic acid	5.00	U	5.00	2.00	ng/L		11/02/21 16:48	11/05/21 00:21	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	1.00	ng/L		11/02/21 16:48	11/05/21 00:21	1
Perfluoropentanoic acid	2.00	U	2.00	0.50	ng/L		11/02/21 16:48	11/05/21 00:21	1

	MB	MB					Prepared	Analyzed	Dil Fac
Isotope Dilution	%Recovery	Qualifier	Limits						
M2-8:2 FTS	158		34 - 182				11/02/21 16:48	11/05/21 00:21	1
M2-6:2 FTS	154		29 - 189				11/02/21 16:48	11/05/21 00:21	1
13C5 PFHxA	162	*	31 - 142				11/02/21 16:48	11/05/21 00:21	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-189928/1-A

Matrix: Water

Analysis Batch: 190722

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 189928

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFHpA	173	*	30 - 144	11/02/21 16:48	11/05/21 00:21	1
13C8 PFOA	166	*	49 - 127	11/02/21 16:48	11/05/21 00:21	1
13C9 PFNA	162	*	47 - 136	11/02/21 16:48	11/05/21 00:21	1
13C6 PFDA	163	*	47 - 128	11/02/21 16:48	11/05/21 00:21	1
13C7 PFUnA	166	*	40 - 135	11/02/21 16:48	11/05/21 00:21	1
13C2-PFDoDA	162	*	28 - 136	11/02/21 16:48	11/05/21 00:21	1
13C2 PFTeDA	159	*	10 - 144	11/02/21 16:48	11/05/21 00:21	1
13C3 PFBS	159	*	19 - 178	11/02/21 16:48	11/05/21 00:21	1
13C3 PFHxS	169	*	32 - 145	11/02/21 16:48	11/05/21 00:21	1
13C8 PFOS	165	*	49 - 126	11/02/21 16:48	11/05/21 00:21	1
d3-NMeFOSAA	157	*	32 - 151	11/02/21 16:48	11/05/21 00:21	1
d5-NEtFOSAA	171	*	37 - 164	11/02/21 16:48	11/05/21 00:21	1
13C8 FOSA	148	*	10 - 143	11/02/21 16:48	11/05/21 00:21	1
13C4 PFBA	166	*	41 - 132	11/02/21 16:48	11/05/21 00:21	1
13C5 PFPeA	145		33 - 155	11/02/21 16:48	11/05/21 00:21	1

Lab Sample ID: LCS 410-189928/2-A

Matrix: Water

Analysis Batch: 190722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 189928

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.6	21.03		ng/L		82	66 - 137
Perfluoroheptanoic acid	25.6	21.85		ng/L		85	66 - 141
Perfluorooctanoic acid	25.6	21.60		ng/L		84	65 - 136
Perfluorononanoic acid	25.6	21.82		ng/L		85	65 - 140
Perfluorodecanoic acid	25.6	21.79		ng/L		85	63 - 137
Perfluorotridecanoic acid	25.6	24.61		ng/L		96	58 - 146
Perfluorotetradecanoic acid	25.6	23.45		ng/L		92	64 - 141
Perfluorobutanesulfonic acid	22.7	19.17		ng/L		85	65 - 132
Perfluorohexanesulfonic acid	23.3	18.99		ng/L		81	60 - 128
Perfluorooctanesulfonic acid	23.7	20.07		ng/L		85	51 - 126
NEtFOSAA	25.6	20.69		ng/L		81	54 - 134
NMeFOSAA	25.6	20.59		ng/L		80	58 - 143
Perfluoroheptanesulfonic acid	24.4	20.49		ng/L		84	67 - 135
Perfluorodecanesulfonic acid	24.7	22.25		ng/L		90	61 - 134
Perfluorooctanesulfonamide	25.6	18.64		ng/L		73	55 - 130
Perfluorobutanoic acid	25.6	21.96		ng/L		86	62 - 156
Perfluoroundecanoic acid	25.6	22.68		ng/L		89	62 - 138
Perfluorododecanoic acid	25.6	23.92		ng/L		93	63 - 140
6:2 Fluorotelomer sulfonic acid	24.3	21.56		ng/L		89	57 - 137
8:2 Fluorotelomer sulfonic acid	24.5	21.34		ng/L		87	56 - 140
Perfluoropentanoic acid	25.6	20.91		ng/L		82	72 - 139

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	131		34 - 182
M2-6:2 FTS	131		29 - 189
13C5 PFHxA	142		31 - 142
13C4 PFHpA	148	*	30 - 144
13C8 PFOA	147	*	49 - 127

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-189928/2-A

Matrix: Water

Analysis Batch: 190722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 189928

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C9 PFNA	144	*	47 - 136
13C6 PFDA	147	*	47 - 128
13C7 PFUnA	143	*	40 - 135
13C2-PFDoDA	141	*	28 - 136
13C2 PFTeDA	139		10 - 144
13C3 PFBS	140		19 - 178
13C3 PFHxS	144		32 - 145
13C8 PFOS	143	*	49 - 126
d3-NMeFOSAA	145		32 - 151
d5-NEtFOSAA	148		37 - 164
13C8 FOSA	131		10 - 143
13C4 PFBA	145	*	41 - 132
13C5 PFPeA	132		33 - 155

Lab Sample ID: 460-246155-A-2-B MS

Matrix: Water

Analysis Batch: 190722

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 189928

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Perfluorohexanoic acid	27.4		253	248.5		ng/L		87	66 - 137
Perfluoroheptanoic acid	7.68	J	253	222.4		ng/L		85	66 - 141
Perfluorooctanoic acid	17.9	J	253	215.3		ng/L		78	65 - 136
Perfluorononanoic acid	7.82	J	253	222.8		ng/L		85	65 - 140
Perfluorodecanoic acid	19.5	U	253	216.9		ng/L		86	63 - 137
Perfluorotridecanoic acid	19.5	U	253	241.4		ng/L		95	58 - 146
Perfluorotetradecanoic acid	19.5	U	253	225.7		ng/L		89	64 - 141
Perfluorobutanesulfonic acid	15.8	J	224	195.8		ng/L		80	65 - 132
Perfluorohexanesulfonic acid	88.5		231	268.1		ng/L		78	60 - 128
Perfluorooctanesulfonic acid	374		234	562.2		ng/L		80	51 - 126
NEtFOSAA	29.3	U	253	195.6		ng/L		77	54 - 134
NMeFOSAA	19.5	U	253	214.2		ng/L		85	58 - 143
Perfluoroheptanesulfonic acid	5.79	J	241	196.9		ng/L		79	67 - 135
Perfluorodecanesulfonic acid	19.5	U	244	203.5		ng/L		83	61 - 134
Perfluorooctanesulfonamide	19.5	U	253	186.7		ng/L		74	55 - 130
Perfluorobutanoic acid	48.8	U	253	227.2		ng/L		90	62 - 156
Perfluoroundecanoic acid	19.5	U	253	228.4		ng/L		90	62 - 138
Perfluorododecanoic acid	19.5	U	253	226.2		ng/L		89	63 - 140
6:2 Fluorotelomer sulfonic acid	48.8	U	240	195.4		ng/L		81	57 - 137
8:2 Fluorotelomer sulfonic acid	29.3	U	242	196.7		ng/L		81	56 - 140
Perfluoropentanoic acid	12.1	J	253	226.1		ng/L		85	72 - 139

Isotope Dilution	MS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	166		34 - 182
M2-6:2 FTS	158		29 - 189
13C5 PFHxA	151	*	31 - 142
13C4 PFHpA	160	*	30 - 144
13C8 PFOA	157	*	49 - 127
13C9 PFNA	149	*	47 - 136
13C6 PFDA	163	*	47 - 128

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-246155-A-2-B MS

Matrix: Water

Analysis Batch: 190722

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 189928

	MS	MS	
Isotope Dilution	%Recovery	Qualifier	Limits
13C7 PUnA	157	*	40 - 135
13C2-PFDoDA	157	*	28 - 136
13C2 PFTeDA	153	*	10 - 144
13C3 PFBS	169		19 - 178
13C3 PFHxS	155	*	32 - 145
13C8 PFOS	155	*	49 - 126
d3-NMeFOSAA	157	*	32 - 151
d5-NEtFOSAA	165	*	37 - 164
13C8 FOSA	139		10 - 143
13C4 PFBA	150	*	41 - 132
13C5 PFPeA	150		33 - 155

Lab Sample ID: 460-246155-A-2-C MSD

Matrix: Water

Analysis Batch: 190722

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 189928

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	27.4		254	244.0		ng/L		85	66 - 137	2	30
Perfluoroheptanoic acid	7.68	J	254	215.0		ng/L		82	66 - 141	3	30
Perfluorooctanoic acid	17.9	J	254	230.9		ng/L		84	65 - 136	7	30
Perfluorononanoic acid	7.82	J	254	228.2		ng/L		87	65 - 140	2	30
Perfluorodecanoic acid	19.5	U	254	231.5		ng/L		91	63 - 137	7	30
Perfluorotridecanoic acid	19.5	U	254	228.8		ng/L		90	58 - 146	5	30
Perfluorotetradecanoic acid	19.5	U	254	241.8		ng/L		95	64 - 141	7	30
Perfluorobutanesulfonic acid	15.8	J	225	200.1		ng/L		82	65 - 132	2	30
Perfluorohexanesulfonic acid	88.5		232	276.0		ng/L		81	60 - 128	3	30
Perfluorooctanesulfonic acid	374		235	575.4		ng/L		86	51 - 126	2	30
NEtFOSAA	29.3	U	254	205.0		ng/L		81	54 - 134	5	30
NMeFOSAA	19.5	U	254	226.2		ng/L		89	58 - 143	5	30
Perfluoroheptanesulfonic acid	5.79	J	242	210.5		ng/L		85	67 - 135	7	30
Perfluorodecanesulfonic acid	19.5	U	245	227.0		ng/L		93	61 - 134	11	30
Perfluorooctanesulfonamide	19.5	U	254	190.1		ng/L		75	55 - 130	2	30
Perfluorobutanoic acid	48.8	U	254	228.0		ng/L		90	62 - 156	0	30
Perfluoroundecanoic acid	19.5	U	254	225.9		ng/L		89	62 - 138	1	30
Perfluorododecanoic acid	19.5	U	254	230.4		ng/L		91	63 - 140	2	30
6:2 Fluorotelomer sulfonic acid	48.8	U	241	196.0		ng/L		81	57 - 137	0	30
8:2 Fluorotelomer sulfonic acid	29.3	U	243	188.2		ng/L		77	56 - 140	4	30
Perfluoropentanoic acid	12.1	J	254	214.9		ng/L		80	72 - 139	5	30

	MSD	MSD	
Isotope Dilution	%Recovery	Qualifier	Limits
M2-8:2 FTS	159		34 - 182
M2-6:2 FTS	156		29 - 189
13C5 PFHxA	147	*	31 - 142
13C4 PFHpA	158	*	30 - 144
13C8 PFOA	151	*	49 - 127
13C9 PFNA	151	*	47 - 136
13C6 PFDA	147	*	47 - 128
13C7 PUnA	147	*	40 - 135
13C2-PFDoDA	145	*	28 - 136

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-246155-A-2-C MSD

Matrix: Water

Analysis Batch: 190722

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 189928

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C2 PFTeDA	145	*	10 - 144
13C3 PFBS	171		19 - 178
13C3 PFHxS	151	*	32 - 145
13C8 PFOS	152	*	49 - 126
d3-NMeFOSAA	139		32 - 151
d5-NEtFOSAA	152		37 - 164
13C8 FOSA	129		10 - 143
13C4 PFBA	153	*	41 - 132
13C5 PFPeA	152		33 - 155

Lab Sample ID: MB 410-191052/1-B

Matrix: Solid

Analysis Batch: 191576

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 191052

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-8:2 FTS	155		10 - 178	11/04/21 18:39	11/06/21 15:54	1
M2-6:2 FTS	144		10 - 182	11/04/21 18:39	11/06/21 15:54	1
13C5 PFHxA	147	*	11 - 138	11/04/21 18:39	11/06/21 15:54	1
13C4 PFHpA	146	*	15 - 139	11/04/21 18:39	11/06/21 15:54	1
13C8 PFOA	144	*	21 - 133	11/04/21 18:39	11/06/21 15:54	1
13C9 PFNA	148	*	15 - 145	11/04/21 18:39	11/06/21 15:54	1
13C6 PFDA	146	*	21 - 134	11/04/21 18:39	11/06/21 15:54	1
13C7 PFUnA	145	*	15 - 138	11/04/21 18:39	11/06/21 15:54	1
13C2-PFDoDA	144	*	28 - 126	11/04/21 18:39	11/06/21 15:54	1
13C2 PFTeDA	143	*	10 - 138	11/04/21 18:39	11/06/21 15:54	1
13C3 PFBS	155	*	23 - 130	11/04/21 18:39	11/06/21 15:54	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-191052/1-B

Matrix: Solid

Analysis Batch: 191576

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 191052

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 PFHxS	154	*	24 - 136	11/04/21 18:39	11/06/21 15:54	1
13C8 PFOS	150	*	31 - 130	11/04/21 18:39	11/06/21 15:54	1
d3-NMeFOSAA	113		10 - 172	11/04/21 18:39	11/06/21 15:54	1
d5-NEtFOSAA	140		10 - 176	11/04/21 18:39	11/06/21 15:54	1
13C8 FOSA	146	*	25 - 135	11/04/21 18:39	11/06/21 15:54	1
13C4 PFBA	148	*	12 - 137	11/04/21 18:39	11/06/21 15:54	1
13C5 PFPeA	158	*	12 - 135	11/04/21 18:39	11/06/21 15:54	1

Lab Sample ID: LCS 410-191052/2-B

Matrix: Solid

Analysis Batch: 191576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 191052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.0	19.57		ug/Kg		78	61 - 147
Perfluoroheptanoic acid	25.0	21.13		ug/Kg		85	61 - 151
Perfluorooctanoic acid	25.0	22.14		ug/Kg		89	62 - 144
Perfluorononanoic acid	25.0	21.17		ug/Kg		85	62 - 148
Perfluorodecanoic acid	25.0	21.26		ug/Kg		85	62 - 142
Perfluorotridecanoic acid	25.0	22.90		ug/Kg		92	57 - 152
Perfluorotetradecanoic acid	25.0	21.32		ug/Kg		85	60 - 147
Perfluorobutanesulfonic acid	22.1	18.69		ug/Kg		84	62 - 137
Perfluorohexanesulfonic acid	22.8	17.96		ug/Kg		79	57 - 135
Perfluorooctanesulfonic acid	23.1	20.43		ug/Kg		88	48 - 134
NEtFOSAA	25.0	19.72		ug/Kg		79	50 - 140
NMeFOSAA	25.0	21.21		ug/Kg		85	53 - 149
Perfluoroheptanesulfonic acid	23.8	18.17		ug/Kg		76	67 - 138
Perfluorodecanesulfonic acid	24.1	21.64		ug/Kg		90	60 - 142
Perfluorooctanesulfonamide	25.0	20.58		ug/Kg		82	52 - 132
Perfluorobutanoic acid	25.0	19.37		ug/Kg		77	50 - 185
Perfluoroundecanoic acid	25.0	23.98		ug/Kg		96	62 - 144
Perfluorododecanoic acid	25.0	21.53		ug/Kg		86	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	18.06		ug/Kg		76	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	18.41		ug/Kg		77	50 - 147
Perfluoropentanoic acid	25.0	21.49		ug/Kg		86	69 - 144

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	143		10 - 178
M2-6:2 FTS	129		10 - 182
13C5 PFHxA	132		11 - 138
13C4 PFHpA	134		15 - 139
13C8 PFOA	129		21 - 133
13C9 PFNA	135		15 - 145
13C6 PFDA	133		21 - 134
13C7 PFUnA	131		15 - 138
13C2-PFDoDA	136	*	28 - 126
13C2 PFTeDA	133		10 - 138
13C3 PFBS	145	*	23 - 130
13C3 PFHxS	141	*	24 - 136
13C8 PFOS	133	*	31 - 130

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-191052/2-B

Matrix: Solid

Analysis Batch: 191576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 191052

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
d3-NMeFOSAA	112		10 - 172
d5-NEtFOSAA	129		10 - 176
13C8 FOSA	141	*	25 - 135
13C4 PFBA	134		12 - 137
13C5 PFPeA	141	*	12 - 135

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-811029/1-A

Matrix: Solid

Analysis Batch: 811430

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811029

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	1.0	U	1.0	0.089	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Barium	2.0	U	2.0	0.15	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Chromium	2.0	U	2.0	0.27	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Copper	2.0	U	2.0	0.37	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Manganese	4.0	U	4.0	0.40	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Nickel	2.0	U	2.0	0.47	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Lead	0.60	U	0.60	0.20	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Selenium	1.3	U	1.3	0.13	mg/Kg		11/03/21 06:52	11/04/21 19:01	1
Zinc	8.0	U	8.0	3.1	mg/Kg		11/03/21 06:52	11/04/21 19:01	1

Lab Sample ID: LCSSRM 460-811029/2-A ^5

Matrix: Solid

Analysis Batch: 811430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811029

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Silver	33.6	20.12		mg/Kg		59.9	48.2 - 73.5	
Arsenic	140	137.2		mg/Kg		98.0	82.9 - 117.9	
Barium	202	184.3		mg/Kg		91.2	81.2 - 118.3	
Beryllium	42.6	40.74		mg/Kg		95.6	81.0 - 119.0	
Cadmium	97.9	99.33		mg/Kg		101.5	80.0 - 119.5	
Chromium	60.4	57.40		mg/Kg		95.0	80.3 - 119.7	
Copper	122	121.6		mg/Kg		99.6	82.8 - 117.2	
Manganese	457	447.0		mg/Kg		97.8	79.6 - 120.6	
Nickel	151	154.0		mg/Kg		102.0	79.5 - 121.2	
Lead	56.7	57.61		mg/Kg		101.6	82.9 - 116.9	
Selenium	35.5	35.97		mg/Kg		101.3	77.5 - 122.3	

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-811029/2-A ^5

Matrix: Solid

Analysis Batch: 811430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811029

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	186	175.4		mg/Kg		94.3	79.0 - 121.0

Lab Sample ID: 460-246207-E-16-F MS ^10

Matrix: Solid

Analysis Batch: 811430

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811029

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.2	U	5.09	4.87	J	mg/Kg	✱	96	75 - 125
Arsenic	10.2	U	10.2	11.56		mg/Kg	✱	114	75 - 125
Barium	17.1	J	10.2	24.81		mg/Kg	✱	76	75 - 125
Beryllium	4.1	U	5.09	5.18		mg/Kg	✱	102	75 - 125
Cadmium	10.2	U	5.09	5.20	J	mg/Kg	✱	102	75 - 125
Chromium	20.4	U	10.2	11.81	J	mg/Kg	✱	116	75 - 125
Copper	5.3	J	10.2	14.36	J	mg/Kg	✱	89	75 - 125
Manganese	107		50.9	150.5		mg/Kg	✱	86	75 - 125
Nickel	20.4	U	10.2	11.35	J	mg/Kg	✱	111	75 - 125
Lead	2.3	J	5.09	7.61		mg/Kg	✱	104	75 - 125
Selenium	12.7	U	10.2	11.81	J	mg/Kg	✱	116	75 - 125
Zinc	81.5	U	50.9	55.27	J	mg/Kg	✱	109	75 - 125

Lab Sample ID: 460-246207-E-16-E DU ^10

Matrix: Solid

Analysis Batch: 811430

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 811029

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	10.2	U	10.2	U	mg/Kg	✱	NC	20
Arsenic	10.2	U	1.17	J	mg/Kg	✱	NC	20
Barium	17.1	J	16.61	J	mg/Kg	✱	3	20
Beryllium	4.1	U	4.1	U	mg/Kg	✱	NC	20
Cadmium	10.2	U	10.2	U	mg/Kg	✱	NC	20
Chromium	20.4	U	20.4	U	mg/Kg	✱	NC	20
Copper	5.3	J	5.36	J	mg/Kg	✱	0.7	20
Manganese	107		106.1		mg/Kg	✱	0.7	20
Nickel	20.4	U	20.4	U	mg/Kg	✱	NC	20
Lead	2.3	J	2.38	J	mg/Kg	✱	3	20
Selenium	12.7	U	12.7	U	mg/Kg	✱	NC	20
Zinc	81.5	U	81.5	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-811034/1-A

Matrix: Solid

Analysis Batch: 811589

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811034

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Silver	1.0	U	1.0	0.089	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Barium	2.0	U	2.0	0.15	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Barium	2.0	U	2.0	0.15	mg/Kg		11/03/21 07:31	11/05/21 13:03	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-811034/1-A

Matrix: Solid

Analysis Batch: 811589

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811034

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.40	U	0.40	0.057	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Chromium	2.0	U	2.0	0.27	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Chromium	2.0	U	2.0	0.27	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Copper	2.0	U	2.0	0.37	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Copper	2.0	U	2.0	0.37	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Manganese	4.0	U	4.0	0.40	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Manganese	4.0	U	4.0	0.40	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Nickel	2.0	U	2.0	0.47	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Nickel	2.0	U	2.0	0.47	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Lead	0.60	U	0.60	0.20	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Lead	0.60	U	0.60	0.20	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Selenium	1.3	U	1.3	0.13	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Selenium	1.3	U	1.3	0.13	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Zinc	8.0	U	8.0	3.1	mg/Kg		11/03/21 07:31	11/05/21 13:03	1
Zinc	8.0	U	8.0	3.1	mg/Kg		11/03/21 07:31	11/05/21 13:03	1

Lab Sample ID: LCSSRM 460-811034/2-A ^5

Matrix: Solid

Analysis Batch: 811589

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811034

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	19.65		mg/Kg		58.5	48.2 - 73.5
Arsenic	140	133.1		mg/Kg		95.1	82.9 - 117.9
Barium	202	192.6		mg/Kg		95.4	81.2 - 118.3
Beryllium	42.6	42.02		mg/Kg		98.6	81.0 - 119.0
Cadmium	97.9	93.89		mg/Kg		95.9	80.0 - 119.5
Chromium	60.4	56.83		mg/Kg		94.1	80.3 - 119.7
Copper	122	117.1		mg/Kg		96.0	82.8 - 117.2
Manganese	457	429.2		mg/Kg		93.9	79.6 - 120.6
Nickel	151	144.0		mg/Kg		95.4	79.5 - 121.2
Lead	56.7	60.62		mg/Kg		106.9	82.9 - 116.9
Selenium	35.5	33.17		mg/Kg		93.4	77.5 - 122.3
Zinc	186	178.4		mg/Kg		95.9	79.0 - 121.0

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-245871-I-3-C MS

Matrix: Solid

Analysis Batch: 811589

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811034

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.1	U	5.40	4.86		mg/Kg	☼	90	75 - 125
Arsenic	1.9		10.8	11.74		mg/Kg	☼	91	75 - 125
Barium	28.8		10.8	40.48		mg/Kg	☼	108	75 - 125
Beryllium	0.44		5.40	5.92		mg/Kg	☼	101	75 - 125
Cadmium	1.1	U	5.40	5.31		mg/Kg	☼	98	75 - 125
Chromium	15.5		10.8	27.34		mg/Kg	☼	110	75 - 125
Copper	17.7		10.8	28.54		mg/Kg	☼	100	75 - 125
Manganese	364		54.0	449.7	4	mg/Kg	☼	158	75 - 125
Nickel	15.6		10.8	26.46		mg/Kg	☼	100	75 - 125
Lead	5.0		5.40	11.34		mg/Kg	☼	118	75 - 125
Selenium	0.16	J	10.8	10.01		mg/Kg	☼	91	75 - 125
Zinc	26.5		54.0	75.98		mg/Kg	☼	92	75 - 125

Lab Sample ID: 460-245871-I-3-B DU

Matrix: Solid

Analysis Batch: 811589

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 811034

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.1	U	1.1	U	mg/Kg	☼	NC	20
Arsenic	1.9		2.08		mg/Kg	☼	8	20
Barium	28.8		28.51		mg/Kg	☼	1	20
Beryllium	0.44		0.459		mg/Kg	☼	4	20
Cadmium	1.1	U	1.1	U	mg/Kg	☼	NC	20
Chromium	15.5		18.29		mg/Kg	☼	17	20
Copper	17.7		18.69		mg/Kg	☼	5	20
Manganese	364		380.8		mg/Kg	☼	5	20
Nickel	15.6		16.51		mg/Kg	☼	6	20
Lead	5.0		5.25		mg/Kg	☼	6	20
Selenium	0.16	J	0.171	J	mg/Kg	☼	8	20
Zinc	26.5		26.43		mg/Kg	☼	0.5	20

Lab Sample ID: MB 460-811076/1-A

Matrix: Water

Analysis Batch: 811334

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811076

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		11/03/21 09:21	11/04/21 09:57	1
Arsenic	2.0	U	2.0	0.89	ug/L		11/03/21 09:21	11/04/21 09:57	1
Barium	4.0	U	4.0	0.91	ug/L		11/03/21 09:21	11/04/21 09:57	1
Beryllium	0.80	U	0.80	0.13	ug/L		11/03/21 09:21	11/04/21 09:57	1
Cadmium	2.0	U	2.0	0.39	ug/L		11/03/21 09:21	11/04/21 09:57	1
Chromium	4.0	U	4.0	2.5	ug/L		11/03/21 09:21	11/04/21 09:57	1
Copper	4.0	U	4.0	2.5	ug/L		11/03/21 09:21	11/04/21 09:57	1
Manganese	8.0	U	8.0	1.5	ug/L		11/03/21 09:21	11/04/21 09:57	1
Nickel	4.0	U	4.0	0.91	ug/L		11/03/21 09:21	11/04/21 09:57	1
Lead	1.2	U	1.2	0.84	ug/L		11/03/21 09:21	11/04/21 09:57	1
Selenium	2.5	U	2.5	0.59	ug/L		11/03/21 09:21	11/04/21 09:57	1
Zinc	16.0	U	16.0	6.5	ug/L		11/03/21 09:21	11/04/21 09:57	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-811076/2-A

Matrix: Water

Analysis Batch: 811334

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	24.20		ug/L		97	80 - 120
Arsenic	50.0	53.53		ug/L		107	80 - 120
Barium	50.0	54.65		ug/L		109	80 - 120
Beryllium	25.0	24.46		ug/L		98	80 - 120
Cadmium	25.0	24.94		ug/L		100	80 - 120
Chromium	50.0	51.81		ug/L		104	80 - 120
Copper	50.0	53.98		ug/L		108	80 - 120
Manganese	250	263.8		ug/L		106	80 - 120
Nickel	50.0	54.32		ug/L		109	80 - 120
Lead	25.0	25.78		ug/L		103	80 - 120
Selenium	50.0	46.88		ug/L		94	80 - 120
Zinc	250	258.1		ug/L		103	80 - 120

Lab Sample ID: 460-246289-D-8-B MS

Matrix: Water

Analysis Batch: 811334

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811076

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	2.0	U	25.0	26.25		ug/L		105	75 - 125
Arsenic	1.9	J	50.0	60.39		ug/L		117	75 - 125
Barium	49.6		50.0	104.0		ug/L		109	75 - 125
Beryllium	0.20	J	25.0	27.89		ug/L		111	75 - 125
Cadmium	2.0	U	25.0	27.63		ug/L		111	75 - 125
Chromium	28.8		50.0	85.08		ug/L		113	75 - 125
Copper	10.3		50.0	66.85		ug/L		113	75 - 125
Manganese	208		250	479.5		ug/L		109	75 - 125
Nickel	14.1		50.0	71.08		ug/L		114	75 - 125
Lead	3.8		25.0	31.31		ug/L		110	75 - 125
Selenium	2.5	U	50.0	52.71		ug/L		105	75 - 125
Zinc	20.5		250	300.2		ug/L		112	75 - 125

Lab Sample ID: 460-246289-A-8-A DU

Matrix: Water

Analysis Batch: 811334

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 811076

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	2.0	U	2.0	U	ug/L		NC	20
Arsenic	1.9	J	2.33		ug/L		18	20
Barium	49.6		50.72		ug/L		2	20
Beryllium	0.20	J	0.221	J	ug/L		10	20
Cadmium	2.0	U	2.0	U	ug/L		NC	20
Chromium	28.8		29.55		ug/L		3	20
Copper	10.3		10.10		ug/L		2	20
Manganese	208		203.4		ug/L		2	20
Nickel	14.1		14.27		ug/L		1	20
Lead	3.8		3.68		ug/L		4	20
Selenium	2.5	U	2.5	U	ug/L		NC	20
Zinc	20.5		21.59		ug/L		5	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-812870/1-A

Matrix: Solid

Analysis Batch: 812935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Barium	2.0	U	2.0	0.15	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Chromium	2.0	U	2.0	0.27	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Copper	2.0	U	2.0	0.37	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Manganese	4.0	U	4.0	0.40	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Nickel	2.0	U	2.0	0.47	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Lead	0.60	U	0.60	0.20	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Selenium	1.3	U	1.3	0.13	mg/Kg		11/12/21 05:55	11/13/21 00:46	1
Zinc	8.0	U	8.0	3.1	mg/Kg		11/12/21 05:55	11/13/21 00:46	1

Lab Sample ID: LCSSRM 460-812870/2-A ^5

Matrix: Solid

Analysis Batch: 812935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812870

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	21.25		mg/Kg		63.3	48.2 - 73.5
Arsenic	140	142.4		mg/Kg		101.7	82.9 - 117.9
Barium	202	200.3		mg/Kg		99.1	81.2 - 118.3
Beryllium	42.6	44.10		mg/Kg		103.5	81.0 - 119.0
Cadmium	97.9	105.2		mg/Kg		107.5	80.0 - 119.5
Chromium	60.4	60.90		mg/Kg		100.8	80.3 - 119.7
Copper	122	130.7		mg/Kg		107.1	82.8 - 117.2
Manganese	457	461.7		mg/Kg		101.0	79.6 - 120.6
Nickel	151	163.7		mg/Kg		108.4	79.5 - 121.2
Lead	56.7	60.16		mg/Kg		106.1	82.9 - 116.9
Selenium	35.5	37.34		mg/Kg		105.2	77.5 - 122.3
Zinc	186	193.4		mg/Kg		104.0	79.0 - 121.0

Lab Sample ID: 460-246595-F-24-O MS

Matrix: Solid

Analysis Batch: 812935

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 812870

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.31	J	5.35	5.83		mg/Kg	⊛	103	75 - 125
Arsenic	8.0		10.7	17.31		mg/Kg	⊛	87	75 - 125
Barium	97.2		10.7	83.47	4	mg/Kg	⊛	-129	75 - 125
Beryllium	0.39	J	5.35	5.90		mg/Kg	⊛	103	75 - 125
Cadmium	0.72	J	5.35	5.95		mg/Kg	⊛	98	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-246595-F-24-O MS

Matrix: Solid

Analysis Batch: 812935

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 812870

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	22.1		10.7	32.20		mg/Kg	✱	95	75 - 125
Copper	91.4		10.7	97.11	4	mg/Kg	✱	54	75 - 125
Manganese	230		53.5	274.3	4	mg/Kg	✱	83	75 - 125
Nickel	14.2		10.7	24.68		mg/Kg	✱	98	75 - 125
Lead	133		5.35	154.5	4	mg/Kg	✱	397	75 - 125
Selenium	0.48	J	10.7	10.31		mg/Kg	✱	92	75 - 125
Zinc	138		53.5	181.9		mg/Kg	✱	83	75 - 125

Lab Sample ID: 460-246595-A-24-D DU

Matrix: Solid

Analysis Batch: 812935

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 812870

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	0.31	J	0.287	J	mg/Kg	✱	8	20
Arsenic	8.0		8.63		mg/Kg	✱	7	20
Barium	97.2		75.55	*	mg/Kg	✱	25	20
Beryllium	0.39	J	0.451		mg/Kg	✱	15	20
Cadmium	0.72	J	0.926	J	mg/Kg	✱	24	20
Chromium	22.1		23.70		mg/Kg	✱	7	20
Copper	91.4		97.75		mg/Kg	✱	7	20
Manganese	230		377.4	*	mg/Kg	✱	49	20
Nickel	14.2		15.71		mg/Kg	✱	10	20
Lead	133		140.2		mg/Kg	✱	5	20
Selenium	0.48	J	0.496	J	mg/Kg	✱	3	20
Zinc	138		156.4		mg/Kg	✱	13	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-811345/1-A

Matrix: Water

Analysis Batch: 811432

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811345

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		11/04/21 12:48	11/04/21 14:06	1

Lab Sample ID: LCS 460-811345/2-A

Matrix: Water

Analysis Batch: 811432

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.10		ug/L		110	80 - 120

Lab Sample ID: 460-246172-E-2-D MS

Matrix: Water

Analysis Batch: 811432

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811345

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.20	U	1.00	1.08		ug/L		108	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 460-246172-B-2-B DU
Matrix: Water
Analysis Batch: 811432

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 811345

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.20	U	0.20	U	ug/L		NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-811484/10-A
Matrix: Solid
Analysis Batch: 811583

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 811484

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		11/05/21 03:17	11/05/21 06:38	1

Lab Sample ID: LCSSRM 460-811484/11-A ^40
Matrix: Solid
Analysis Batch: 811583

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 811484

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	16.45		mg/Kg		99.7	74.5 - 124.8

Lab Sample ID: 460-246221-F-4-C MS
Matrix: Solid
Analysis Batch: 811583

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 811484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.017	J	0.0896	0.104		mg/Kg	✱	97	80 - 120

Lab Sample ID: 460-246221-A-4-E DU
Matrix: Solid
Analysis Batch: 811583

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 811484

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.017	J	0.0202		mg/Kg	✱	18	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-810175/9
Matrix: Water
Analysis Batch: 810175

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	10.0	U	10.0	8.1	ug/L			10/29/21 09:53	1

Lab Sample ID: LCSSRM 460-810175/11
Matrix: Water
Analysis Batch: 810175

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	79.4	78.88		ug/L		99.3	84.1 - 114.4

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: MRL 460-810175/10

Matrix: Water

Analysis Batch: 810175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	10.0	9.37	J	ug/L		94	50 - 150

Lab Sample ID: 460-246057-F-7 MS

Matrix: Water

Analysis Batch: 810175

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	10.0	U	30.0	32.91		ug/L		110	85 - 115

Lab Sample ID: 460-246057-F-7 DU

Matrix: Water

Analysis Batch: 810175

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	10.0	U	10.0	U	ug/L		NC	20

Lab Sample ID: MB 460-811668/1-A

Matrix: Solid

Analysis Batch: 811882

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811668

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		11/05/21 18:06	11/07/21 07:42	1

Lab Sample ID: LCSI 460-811668/3-A

Matrix: Solid

Analysis Batch: 811882

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811668

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	649.8		mg/Kg		92	80 - 120

Lab Sample ID: LCSSRM 460-811668/2-A

Matrix: Solid

Analysis Batch: 811882

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811668

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	12.3	11.48		mg/Kg		93.0	84.0 - 114.6

Lab Sample ID: LCSSRM 460-811668/4-A

Matrix: Solid

Analysis Batch: 811882

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811668

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	115.8		mg/Kg		88.4	61.3 - 138.2

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-246326-F-1-H MSS

Matrix: Solid

Analysis Batch: 811882

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811668

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.2	U	43.8	34.63		mg/Kg	✱	79	75 - 125

Lab Sample ID: 460-246326-F-1-I MSI

Matrix: Solid

Analysis Batch: 811882

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811668

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.2	U	775	682.8		mg/Kg	✱	88	75 - 125

Lab Sample ID: 460-246326-F-1-G DU

Matrix: Solid

Analysis Batch: 811882

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 811668

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.2	U	2.2	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-811106/1-A

Matrix: Solid

Analysis Batch: 811344

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811106

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		11/03/21 11:17	11/04/21 11:57	1

Lab Sample ID: LCSSRM 460-811106/2-A ^20

Matrix: Solid

Analysis Batch: 811344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811106

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	95.3	56.16		mg/Kg		58.9	23.7 - 123.8

Lab Sample ID: 460-246107-2 MS

Matrix: Solid

Analysis Batch: 811344

Client Sample ID: 109_PE-23

Prep Type: Total/NA

Prep Batch: 811106

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.24	J	5.78	6.71	N	mg/Kg	✱	112	11 - 108

Lab Sample ID: 460-246107-2 MSD

Matrix: Solid

Analysis Batch: 811344

Client Sample ID: 109_PE-23

Prep Type: Total/NA

Prep Batch: 811106

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.24	J	5.78	6.76	N	mg/Kg	✱	113	11 - 108	1	40

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: MRL 460-811156/38-A

Matrix: Solid

Analysis Batch: 811344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811156

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.00899	J	mg/L		90	50 - 150

Lab Sample ID: MB 460-811200/2-A

Matrix: Water

Analysis Batch: 811215

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		11/03/21 20:02	11/03/21 22:08	1

Lab Sample ID: LCS 460-811200/3-A

Matrix: Water

Analysis Batch: 811215

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.103		mg/L		103	85 - 115

Lab Sample ID: MRL 460-811200/1-A

Matrix: Water

Analysis Batch: 811215

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811200

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0109		mg/L		109	50 - 150

Lab Sample ID: 460-245838-F-1-B MS

Matrix: Water

Analysis Batch: 811215

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811200

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.010	U	0.200	0.237	N	mg/L		119	90 - 110

Lab Sample ID: 460-245838-F-1-C MSD

Matrix: Water

Analysis Batch: 811215

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 811200

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.010	U	0.200	0.227	N	mg/L		114	90 - 110	4	28

Method: Moisture - Percent Moisture

Lab Sample ID: 460-246207-E-7 DU

Matrix: Solid

Analysis Batch: 810953

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	7.8		6.2	*	%		23	20
Percent Solids	92.2		93.8		%		2	20

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

GC/MS VOA

Prep Batch: 810209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	5035	
460-246107-2	109_PE-23	Total/NA	Solid	5035	
460-246107-3	110_DUP-6	Total/NA	Solid	5035	
460-246107-4	111_PE-6	Total/NA	Solid	5035	

Analysis Batch: 810770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	8260D	810209
460-246107-2	109_PE-23	Total/NA	Solid	8260D	810209
460-246107-3	110_DUP-6	Total/NA	Solid	8260D	810209
460-246107-4	111_PE-6	Total/NA	Solid	8260D	810209
MB 460-810770/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-810770/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-810770/4	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 810788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-5	112_TB-7	Total/NA	Water	8260D	
460-246107-6	113_FB-6	Total/NA	Water	8260D	
MB 460-810788/7	Method Blank	Total/NA	Water	8260D	
LCS 460-810788/3	Lab Control Sample	Total/NA	Water	8260D	
460-246093-B-6 MS	Matrix Spike	Total/NA	Water	8260D	
460-246093-B-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 810078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	3510C	
MB 460-810078/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-810078/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-810078/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-246021-J-3-A MS	Matrix Spike	Total/NA	Water	3510C	
460-246021-K-3-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 810241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	8270E	810078
MB 460-810078/1-A	Method Blank	Total/NA	Water	8270E	810078
LCS 460-810078/2-A	Lab Control Sample	Total/NA	Water	8270E	810078
LCSD 460-810078/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	810078
460-246021-J-3-A MS	Matrix Spike	Total/NA	Water	8270E	810078
460-246021-K-3-A MSD	Matrix Spike Duplicate	Total/NA	Water	8270E	810078

Prep Batch: 810261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	3546	
460-246107-1 - DL	108_PE-22	Total/NA	Solid	3546	
460-246107-2	109_PE-23	Total/NA	Solid	3546	
460-246107-3	110_DUP-6	Total/NA	Solid	3546	
MB 460-810261/1-A	Method Blank	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

GC/MS Semi VOA (Continued)

Prep Batch: 810261 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-810261/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-810261/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-245855-C-1-A MS	Matrix Spike	Total/NA	Solid	3546	
460-245855-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 810262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-4	111_PE-6	Total/NA	Solid	3546	
MB 460-810262/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-810262/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-810262/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246078-E-7-A MS	Matrix Spike	Total/NA	Solid	3546	
460-246078-E-7-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 810280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-4	111_PE-6	Total/NA	Solid	8270E	810262
MB 460-810262/1-A	Method Blank	Total/NA	Solid	8270E	810262
460-246078-E-7-A MS	Matrix Spike	Total/NA	Solid	8270E	810262
460-246078-E-7-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	810262

Analysis Batch: 810400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	8270E	810261
460-246107-2	109_PE-23	Total/NA	Solid	8270E	810261
460-246107-3	110_DUP-6	Total/NA	Solid	8270E	810261
MB 460-810261/1-A	Method Blank	Total/NA	Solid	8270E	810261
LCS 460-810261/2-A	Lab Control Sample	Total/NA	Solid	8270E	810261
LCSD 460-810261/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	810261
460-245855-C-1-A MS	Matrix Spike	Total/NA	Solid	8270E	810261
460-245855-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	810261

Analysis Batch: 810403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-810262/2-A	Lab Control Sample	Total/NA	Solid	8270E	810262
LCSD 460-810262/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	810262

Analysis Batch: 810633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1 - DL	108_PE-22	Total/NA	Solid	8270E	810261

GC Semi VOA

Prep Batch: 810113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	3510C	
MB 460-810113/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-810113/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-810113/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

GC Semi VOA

Prep Batch: 810123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	3510C	
MB 460-810123/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-810123/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-810123/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 810283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	8151A	
MB 460-810283/1-A	Method Blank	Total/NA	Water	8151A	
LCS 460-810283/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 460-810283/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Prep Batch: 810497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	3546	
460-246107-2	109_PE-23	Total/NA	Solid	3546	
460-246107-3	110_DUP-6	Total/NA	Solid	3546	
460-246107-4	111_PE-6	Total/NA	Solid	3546	
MB 460-810497/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-810497/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-810497/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 810503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	3546	
460-246107-2	109_PE-23	Total/NA	Solid	3546	
460-246107-3	110_DUP-6	Total/NA	Solid	3546	
460-246107-4	111_PE-6	Total/NA	Solid	3546	
MB 460-810503/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-810503/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-810503/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 810571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	8081B	810113
MB 460-810113/1-A	Method Blank	Total/NA	Water	8081B	810113
LCS 460-810113/2-A	Lab Control Sample	Total/NA	Water	8081B	810113
LCSD 460-810113/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	810113

Analysis Batch: 810578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-810503/1-A	Method Blank	Total/NA	Solid	8081B	810503
LCS 460-810503/2-A	Lab Control Sample	Total/NA	Solid	8081B	810503
LCSD 460-810503/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	810503

Analysis Batch: 810581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	8082A	810123
MB 460-810123/1-A	Method Blank	Total/NA	Water	8082A	810123
LCS 460-810123/2-A	Lab Control Sample	Total/NA	Water	8082A	810123
LCSD 460-810123/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	810123

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

GC Semi VOA

Analysis Batch: 810596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	8151A	810283
MB 460-810283/1-A	Method Blank	Total/NA	Water	8151A	810283
LCS 460-810283/2-A	Lab Control Sample	Total/NA	Water	8151A	810283
LCSD 460-810283/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	810283

Analysis Batch: 810692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-810497/1-A	Method Blank	Total/NA	Solid	8082A	810497
LCS 460-810497/2-A	Lab Control Sample	Total/NA	Solid	8082A	810497
LCSD 460-810497/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	810497

Prep Batch: 810745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	8151A	
460-246107-2	109_PE-23	Total/NA	Solid	8151A	
460-246107-3	110_DUP-6	Total/NA	Solid	8151A	
460-246107-4	111_PE-6	Total/NA	Solid	8151A	
MB 460-810745/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-810745/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-810745/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 810767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	8081B	810503
460-246107-2	109_PE-23	Total/NA	Solid	8081B	810503
460-246107-3	110_DUP-6	Total/NA	Solid	8081B	810503
460-246107-4	111_PE-6	Total/NA	Solid	8081B	810503

Analysis Batch: 810800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-810745/1-A	Method Blank	Total/NA	Solid	8151A	810745
LCS 460-810745/2-A	Lab Control Sample	Total/NA	Solid	8151A	810745
LCSD 460-810745/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	810745

Analysis Batch: 810811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	8082A	810497
460-246107-2	109_PE-23	Total/NA	Solid	8082A	810497
460-246107-3	110_DUP-6	Total/NA	Solid	8082A	810497
460-246107-4	111_PE-6	Total/NA	Solid	8082A	810497

Analysis Batch: 810879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	8151A	810745
460-246107-2	109_PE-23	Total/NA	Solid	8151A	810745
460-246107-3	110_DUP-6	Total/NA	Solid	8151A	810745
460-246107-4	111_PE-6	Total/NA	Solid	8151A	810745

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

LCMS

Prep Batch: 189928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	537 IDA	
MB 410-189928/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-189928/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
460-246155-A-2-B MS	Matrix Spike	Total/NA	Water	537 IDA	
460-246155-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	537 IDA	

Analysis Batch: 190722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	537 IDA	189928
MB 410-189928/1-A	Method Blank	Total/NA	Water	537 IDA	189928
LCS 410-189928/2-A	Lab Control Sample	Total/NA	Water	537 IDA	189928
460-246155-A-2-B MS	Matrix Spike	Total/NA	Water	537 IDA	189928
460-246155-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	537 IDA	189928

Prep Batch: 191052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	SHAKE	
460-246107-2	109_PE-23	Total/NA	Solid	SHAKE	
460-246107-3	110_DUP-6	Total/NA	Solid	SHAKE	
460-246107-4	111_PE-6	Total/NA	Solid	SHAKE	
MB 410-191052/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-191052/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	

Cleanup Batch: 191097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	Extract Aliquot	191052
460-246107-2	109_PE-23	Total/NA	Solid	Extract Aliquot	191052
460-246107-3	110_DUP-6	Total/NA	Solid	Extract Aliquot	191052
460-246107-4	111_PE-6	Total/NA	Solid	Extract Aliquot	191052
MB 410-191052/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	191052
LCS 410-191052/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	191052

Analysis Batch: 191576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	537 IDA	191097
460-246107-2	109_PE-23	Total/NA	Solid	537 IDA	191097
460-246107-3	110_DUP-6	Total/NA	Solid	537 IDA	191097
460-246107-4	111_PE-6	Total/NA	Solid	537 IDA	191097
MB 410-191052/1-B	Method Blank	Total/NA	Solid	537 IDA	191097
LCS 410-191052/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	191097

Metals

Prep Batch: 811029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	3050B	
460-246107-2	109_PE-23	Total/NA	Solid	3050B	
460-246107-3	110_DUP-6	Total/NA	Solid	3050B	
MB 460-811029/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-811029/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-246207-E-16-F MS ^10	Matrix Spike	Total/NA	Solid	3050B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Metals (Continued)

Prep Batch: 811029 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246207-E-16-E DU ^10	Duplicate	Total/NA	Solid	3050B	

Prep Batch: 811034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-4	111_PE-6	Total/NA	Solid	3050B	
MB 460-811034/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-811034/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-245871-I-3-C MS	Matrix Spike	Total/NA	Solid	3050B	
460-245871-I-3-B DU	Duplicate	Total/NA	Solid	3050B	

Prep Batch: 811076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	3010A	
MB 460-811076/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-811076/2-A	Lab Control Sample	Total/NA	Water	3010A	
460-246289-D-8-B MS	Matrix Spike	Total/NA	Water	3010A	
460-246289-A-8-A DU	Duplicate	Total/NA	Water	3010A	

Analysis Batch: 811123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	6020B	811029
460-246107-2	109_PE-23	Total/NA	Solid	6020B	811029
460-246107-3	110_DUP-6	Total/NA	Solid	6020B	811029

Analysis Batch: 811334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	6020B	811076
MB 460-811076/1-A	Method Blank	Total/NA	Water	6020B	811076
LCS 460-811076/2-A	Lab Control Sample	Total/NA	Water	6020B	811076
460-246289-D-8-B MS	Matrix Spike	Total/NA	Water	6020B	811076
460-246289-A-8-A DU	Duplicate	Total/NA	Water	6020B	811076

Prep Batch: 811345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	7470A	
MB 460-811345/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-811345/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-246172-E-2-D MS	Matrix Spike	Total/NA	Water	7470A	
460-246172-B-2-B DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 811430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	6020B	811029
460-246107-2	109_PE-23	Total/NA	Solid	6020B	811029
460-246107-3	110_DUP-6	Total/NA	Solid	6020B	811029
MB 460-811029/1-A	Method Blank	Total/NA	Solid	6020B	811029
LCSSRM 460-811029/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	811029
460-246207-E-16-F MS ^10	Matrix Spike	Total/NA	Solid	6020B	811029
460-246207-E-16-E DU ^10	Duplicate	Total/NA	Solid	6020B	811029

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Metals

Analysis Batch: 811432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	7470A	811345
MB 460-811345/1-A	Method Blank	Total/NA	Water	7470A	811345
LCS 460-811345/2-A	Lab Control Sample	Total/NA	Water	7470A	811345
460-246172-E-2-D MS	Matrix Spike	Total/NA	Water	7470A	811345
460-246172-B-2-B DU	Duplicate	Total/NA	Water	7470A	811345

Prep Batch: 811484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	7471B	
460-246107-2	109_PE-23	Total/NA	Solid	7471B	
460-246107-3	110_DUP-6	Total/NA	Solid	7471B	
460-246107-4	111_PE-6	Total/NA	Solid	7471B	
MB 460-811484/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-811484/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	
460-246221-F-4-C MS	Matrix Spike	Total/NA	Solid	7471B	
460-246221-A-4-E DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 811583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	7471B	811484
460-246107-2	109_PE-23	Total/NA	Solid	7471B	811484
460-246107-3	110_DUP-6	Total/NA	Solid	7471B	811484
460-246107-4	111_PE-6	Total/NA	Solid	7471B	811484
MB 460-811484/10-A	Method Blank	Total/NA	Solid	7471B	811484
LCSSRM 460-811484/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	811484
460-246221-F-4-C MS	Matrix Spike	Total/NA	Solid	7471B	811484
460-246221-A-4-E DU	Duplicate	Total/NA	Solid	7471B	811484

Analysis Batch: 811589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-811034/1-A	Method Blank	Total/NA	Solid	6020B	811034
LCSSRM 460-811034/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	811034
460-245871-I-3-C MS	Matrix Spike	Total/NA	Solid	6020B	811034
460-245871-I-3-B DU	Duplicate	Total/NA	Solid	6020B	811034

Analysis Batch: 811910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-4	111_PE-6	Total/NA	Solid	6020B	811034

Analysis Batch: 812063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-4	111_PE-6	Total/NA	Solid	6020B	811034
460-246107-6	113_FB-6	Total/NA	Water	6020B	811076

Prep Batch: 812870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-812870/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-812870/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-246595-F-24-O MS	Matrix Spike	Total/NA	Solid	3050B	
460-246595-A-24-D DU	Duplicate	Total/NA	Solid	3050B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Metals

Analysis Batch: 812935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-812870/1-A	Method Blank	Total/NA	Solid	6020B	812870
LCSSRM 460-812870/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	812870
460-246595-F-24-O MS	Matrix Spike	Total/NA	Solid	6020B	812870
460-246595-A-24-D DU	Duplicate	Total/NA	Solid	6020B	812870

General Chemistry

Analysis Batch: 810073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	7196A	
460-246107-2	109_PE-23	Total/NA	Solid	7196A	
460-246107-3	110_DUP-6	Total/NA	Solid	7196A	
460-246107-4	111_PE-6	Total/NA	Solid	7196A	
460-246107-6	113_FB-6	Total/NA	Water	7196A	

Analysis Batch: 810175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	7196A	
MB 460-810175/9	Method Blank	Total/NA	Water	7196A	
LCSSRM 460-810175/11	Lab Control Sample	Total/NA	Water	7196A	
MRL 460-810175/10	Lab Control Sample	Total/NA	Water	7196A	
460-246057-F-7 MS	Matrix Spike	Total/NA	Water	7196A	
460-246057-F-7 DU	Duplicate	Total/NA	Water	7196A	

Analysis Batch: 810953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	Moisture	
460-246107-2	109_PE-23	Total/NA	Solid	Moisture	
460-246107-3	110_DUP-6	Total/NA	Solid	Moisture	
460-246107-4	111_PE-6	Total/NA	Solid	Moisture	
460-246207-E-7 DU	Duplicate	Total/NA	Solid	Moisture	

Prep Batch: 811106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	9012B	
460-246107-2	109_PE-23	Total/NA	Solid	9012B	
460-246107-3	110_DUP-6	Total/NA	Solid	9012B	
460-246107-4	111_PE-6	Total/NA	Solid	9012B	
MB 460-811106/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-811106/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-246107-2 MS	109_PE-23	Total/NA	Solid	9012B	
460-246107-2 MSD	109_PE-23	Total/NA	Solid	9012B	

Prep Batch: 811156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-811156/38-A	Lab Control Sample	Total/NA	Solid	9012B	

Prep Batch: 811200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	9012B	
MB 460-811200/2-A	Method Blank	Total/NA	Water	9012B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

General Chemistry (Continued)

Prep Batch: 811200 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-811200/3-A	Lab Control Sample	Total/NA	Water	9012B	
MRL 460-811200/1-A	Lab Control Sample	Total/NA	Water	9012B	
460-245838-F-1-B MS	Matrix Spike	Total/NA	Water	9012B	
460-245838-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	

Analysis Batch: 811215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-6	113_FB-6	Total/NA	Water	9012B	811200
MB 460-811200/2-A	Method Blank	Total/NA	Water	9012B	811200
LCS 460-811200/3-A	Lab Control Sample	Total/NA	Water	9012B	811200
MRL 460-811200/1-A	Lab Control Sample	Total/NA	Water	9012B	811200
460-245838-F-1-B MS	Matrix Spike	Total/NA	Water	9012B	811200
460-245838-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	811200

Analysis Batch: 811344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	9012B	811106
460-246107-2	109_PE-23	Total/NA	Solid	9012B	811106
460-246107-3	110_DUP-6	Total/NA	Solid	9012B	811106
460-246107-4	111_PE-6	Total/NA	Solid	9012B	811106
MB 460-811106/1-A	Method Blank	Total/NA	Solid	9012B	811106
LCSSRM 460-811106/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	811106
MRL 460-811156/38-A	Lab Control Sample	Total/NA	Solid	9012B	811156
460-246107-2 MS	109_PE-23	Total/NA	Solid	9012B	811106
460-246107-2 MSD	109_PE-23	Total/NA	Solid	9012B	811106

Prep Batch: 811668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	3060A	
460-246107-2	109_PE-23	Total/NA	Solid	3060A	
460-246107-3	110_DUP-6	Total/NA	Solid	3060A	
460-246107-4	111_PE-6	Total/NA	Solid	3060A	
MB 460-811668/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-811668/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-811668/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-811668/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-246326-F-1-H MSS	Matrix Spike	Total/NA	Solid	3060A	
460-246326-F-1-I MSI	Matrix Spike	Total/NA	Solid	3060A	
460-246326-F-1-G DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 811882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246107-1	108_PE-22	Total/NA	Solid	7196A	811668
460-246107-2	109_PE-23	Total/NA	Solid	7196A	811668
460-246107-3	110_DUP-6	Total/NA	Solid	7196A	811668
460-246107-4	111_PE-6	Total/NA	Solid	7196A	811668
MB 460-811668/1-A	Method Blank	Total/NA	Solid	7196A	811668
LCSI 460-811668/3-A	Lab Control Sample	Total/NA	Solid	7196A	811668
LCSSRM 460-811668/2-A	Lab Control Sample	Total/NA	Solid	7196A	811668
LCSSRM 460-811668/4-A	Lab Control Sample	Total/NA	Solid	7196A	811668
460-246326-F-1-H MSS	Matrix Spike	Total/NA	Solid	7196A	811668

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

General Chemistry (Continued)

Analysis Batch: 811882 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246326-F-1-I MSI	Matrix Spike	Total/NA	Solid	7196A	811668
460-246326-F-1-G DU	Duplicate	Total/NA	Solid	7196A	811668

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 108_PE-22

Date Collected: 10/28/21 10:05

Date Received: 10/28/21 19:30

Lab Sample ID: 460-246107-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810953	11/02/21 19:12	MIE	TAL EDI

Client Sample ID: 108_PE-22

Date Collected: 10/28/21 10:05

Date Received: 10/28/21 19:30

Lab Sample ID: 460-246107-1

Matrix: Solid

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 15:05	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810770	11/02/21 12:44	AAT	TAL EDI
Total/NA	Prep	3546			810261	10/29/21 19:09	DMS	TAL EDI
Total/NA	Analysis	8270E		1	810400	10/30/21 21:44	YAH	TAL EDI
Total/NA	Prep	3546	DL		810261	10/29/21 19:09	DMS	TAL EDI
Total/NA	Analysis	8270E	DL	2	810633	11/01/21 20:33	DAN	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810767	11/02/21 10:06	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 15:32	JHP	TAL EDI
Total/NA	Prep	8151A			810745	11/01/21 23:16	AFR	TAL EDI
Total/NA	Analysis	8151A		1	810879	11/02/21 16:14	SAK	TAL EDI
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 16:27	ZG8V	ELLE
Total/NA	Prep	3050B			811029	11/03/21 06:52	SXC	TAL EDI
Total/NA	Analysis	6020B		1	811123	11/03/21 22:20	LBD	TAL EDI
Total/NA	Prep	3050B			811029	11/03/21 06:52	SXC	TAL EDI
Total/NA	Analysis	6020B		1	811430	11/04/21 19:16	YZH	TAL EDI
Total/NA	Prep	7471B			811484	11/05/21 03:17	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811583	11/05/21 06:52	TJS	TAL EDI
Total/NA	Prep	3060A			811668	11/05/21 18:06	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811882	11/07/21 12:03	OXG	TAL EDI
Total/NA	Prep	9012B			811106	11/03/21 11:17	PXP	TAL EDI
Total/NA	Analysis	9012B		1	811344	11/04/21 12:19	RAK	TAL EDI

Client Sample ID: 109_PE-23

Date Collected: 10/28/21 10:20

Date Received: 10/28/21 19:30

Lab Sample ID: 460-246107-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:38	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810953	11/02/21 19:12	MIE	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 109_PE-23

Lab Sample ID: 460-246107-2

Date Collected: 10/28/21 10:20

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 15:06	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810770	11/02/21 13:04	AAT	TAL EDI
Total/NA	Prep	3546			810261	10/29/21 19:09	DMS	TAL EDI
Total/NA	Analysis	8270E		1	810400	10/30/21 22:01	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810767	11/02/21 10:22	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 15:10	JHP	TAL EDI
Total/NA	Prep	8151A			810745	11/01/21 23:16	AFR	TAL EDI
Total/NA	Analysis	8151A		1	810879	11/02/21 16:28	SAK	TAL EDI
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 16:38	ZG8V	ELLE
Total/NA	Prep	3050B			811029	11/03/21 06:52	SXC	TAL EDI
Total/NA	Analysis	6020B		1	811123	11/03/21 22:24	LBD	TAL EDI
Total/NA	Prep	3050B			811029	11/03/21 06:52	SXC	TAL EDI
Total/NA	Analysis	6020B		50	811430	11/04/21 19:19	YZH	TAL EDI
Total/NA	Prep	7471B			811484	11/05/21 03:17	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811583	11/05/21 06:54	TJS	TAL EDI
Total/NA	Prep	3060A			811668	11/05/21 18:06	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811882	11/07/21 12:03	OXG	TAL EDI
Total/NA	Prep	9012B			811106	11/03/21 11:17	PXP	TAL EDI
Total/NA	Analysis	9012B		1	811344	11/04/21 12:12	RAK	TAL EDI

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Date Collected: 10/28/21 10:30

Matrix: Solid

Date Received: 10/28/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:40	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810953	11/02/21 19:12	MIE	TAL EDI

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Date Collected: 10/28/21 10:30

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 15:06	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810770	11/02/21 13:24	AAT	TAL EDI
Total/NA	Prep	3546			810261	10/29/21 19:09	DMS	TAL EDI
Total/NA	Analysis	8270E		1	810400	10/30/21 22:18	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810767	11/02/21 10:38	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 14:48	JHP	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 110_DUP-6

Lab Sample ID: 460-246107-3

Date Collected: 10/28/21 10:30

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			810745	11/01/21 23:16	AFR	TAL EDI
Total/NA	Analysis	8151A		1	810879	11/02/21 16:41	SAK	TAL EDI
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 16:50	ZG8V	ELLE
Total/NA	Prep	3050B			811029	11/03/21 06:52	SXC	TAL EDI
Total/NA	Analysis	6020B		1	811123	11/03/21 22:31	LBD	TAL EDI
Total/NA	Prep	3050B			811029	11/03/21 06:52	SXC	TAL EDI
Total/NA	Analysis	6020B		50	811430	11/04/21 19:28	YZH	TAL EDI
Total/NA	Prep	7471B			811484	11/05/21 03:17	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811583	11/05/21 07:00	TJS	TAL EDI
Total/NA	Prep	3060A			811668	11/05/21 18:06	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811882	11/07/21 12:03	OXG	TAL EDI
Total/NA	Prep	9012B			811106	11/03/21 11:17	PXP	TAL EDI
Total/NA	Analysis	9012B		1	811344	11/04/21 12:20	RAK	TAL EDI

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Date Collected: 10/28/21 10:45

Matrix: Solid

Date Received: 10/28/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	810073	10/29/21 06:40	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	810953	11/02/21 19:12	MIE	TAL EDI

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Date Collected: 10/28/21 10:45

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			810209	10/29/21 15:07	YXG	TAL EDI
Total/NA	Analysis	8260D		1	810770	11/02/21 13:44	AAT	TAL EDI
Total/NA	Prep	3546			810262	10/29/21 19:25	DMS	TAL EDI
Total/NA	Analysis	8270E		1	810280	10/30/21 07:52	YAH	TAL EDI
Total/NA	Prep	3546			810503	10/31/21 08:58	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	810767	11/02/21 10:54	FAM	TAL EDI
Total/NA	Prep	3546			810497	10/31/21 08:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	810811	11/02/21 14:28	JHP	TAL EDI
Total/NA	Prep	8151A			810745	11/01/21 23:16	AFR	TAL EDI
Total/NA	Analysis	8151A		1	810879	11/02/21 16:55	SAK	TAL EDI
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 17:01	ZG8V	ELLE
Total/NA	Prep	3050B			811034	11/03/21 07:31	SXC	TAL EDI
Total/NA	Analysis	6020B		1	811910	11/07/21 18:08	MDC	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Client Sample ID: 111_PE-6

Lab Sample ID: 460-246107-4

Date Collected: 10/28/21 10:45

Matrix: Solid

Date Received: 10/28/21 19:30

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			811034	11/03/21 07:31	SXC	TAL EDI
Total/NA	Analysis	6020B		2	812063	11/08/21 10:26	MDC	TAL EDI
Total/NA	Prep	7471B			811484	11/05/21 03:17	TJS	TAL EDI
Total/NA	Analysis	7471B		1	811583	11/05/21 07:01	TJS	TAL EDI
Total/NA	Prep	3060A			811668	11/05/21 18:06	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811882	11/07/21 12:03	OXG	TAL EDI
Total/NA	Prep	9012B			811106	11/03/21 11:17	PXP	TAL EDI
Total/NA	Analysis	9012B		1	811344	11/04/21 12:21	RAK	TAL EDI

Client Sample ID: 112_TB-7

Lab Sample ID: 460-246107-5

Date Collected: 10/28/21 00:00

Matrix: Water

Date Received: 10/28/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	810788	11/02/21 12:53	SZD	TAL EDI

Client Sample ID: 113_FB-6

Lab Sample ID: 460-246107-6

Date Collected: 10/28/21 11:45

Matrix: Water

Date Received: 10/28/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	810788	11/02/21 13:14	SZD	TAL EDI
Total/NA	Prep	3510C			810078	10/29/21 07:46	DXD	TAL EDI
Total/NA	Analysis	8270E		1	810241	10/30/21 02:49	YAH	TAL EDI
Total/NA	Prep	3510C			810113	10/29/21 09:50	ZEH	TAL EDI
Total/NA	Analysis	8081B		1	810571	11/01/21 08:03	FAM	TAL EDI
Total/NA	Prep	3510C			810123	10/29/21 09:58	ZEH	TAL EDI
Total/NA	Analysis	8082A		1	810581	11/01/21 11:13	JHP	TAL EDI
Total/NA	Prep	8151A			810283	10/29/21 22:56	AFR	TAL EDI
Total/NA	Analysis	8151A		1	810596	11/01/21 08:41	SAK	TAL EDI
Total/NA	Prep	537 IDA			189928	11/02/21 16:48	QLP7	ELLE
Total/NA	Analysis	537 IDA		1	190722	11/05/21 02:12	OLN7	ELLE
Total/NA	Prep	3010A			811076	11/03/21 09:21	SXC	TAL EDI
Total/NA	Analysis	6020B		1	811334	11/04/21 14:37	MDC	TAL EDI
Total/NA	Prep	3010A			811076	11/03/21 09:21	SXC	TAL EDI
Total/NA	Analysis	6020B		1	812063	11/08/21 09:41	MDC	TAL EDI
Total/NA	Prep	7470A			811345	11/04/21 12:48	RBS	TAL EDI
Total/NA	Analysis	7470A		1	811432	11/04/21 14:31	RBS	TAL EDI
Total/NA	Analysis	7196A		1	810073	10/29/21 06:40	TJW	TAL EDI
Total/NA	Analysis	7196A		1	810175	10/29/21 11:25	RAK	TAL EDI
Total/NA	Prep	9012B			811200	11/03/21 20:02	VBG	TAL EDI
Total/NA	Analysis	9012B		1	811215	11/03/21 22:34	VBG	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	12-09-21
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
7196A		Water	Cr (III)
8270E	3510C	Water	3 & 4 Methylphenol
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	11-08-21
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-22
Minnesota	NELAP	042-999-487	01-05-22
Missouri	State	450	11-09-21
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	11-10-21
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-21

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-10-22
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-31-22
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	11-14-21
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	12-20-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
7470A	Preparation, Mercury	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246107-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-246107-1	108_PE-22	Solid	10/28/21 10:05	10/28/21 19:30
460-246107-2	109_PE-23	Solid	10/28/21 10:20	10/28/21 19:30
460-246107-3	110_DUP-6	Solid	10/28/21 10:30	10/28/21 19:30
460-246107-4	111_PE-6	Solid	10/28/21 10:45	10/28/21 19:30
460-246107-5	112_TB-7	Water	10/28/21 00:00	10/28/21 19:30
460-246107-6	113_FB-6	Water	10/28/21 11:45	10/28/21 19:30

Job Number:

29967

Number of Coolers:

IR Gun #

Cooler Temperatures

RAW		CORRECTED		RAW		CORRECTED	
	°C		°C		°C		°C
Cooler #1	22	22	°C	Cooler #7		°C	
Cooler #2		°C	°C	Cooler #8		°C	
Cooler #3		°C	°C	Cooler #9		°C	

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials:

Date: 10/28/21

EDS-WI-038, Rev 4, 06/09/2014

[Illegible text]

: Environment Testing
: America

Client Information (Sub-Contract-Lab)		Lab PM: Grieco, Patricia		Carrier Tracking No(s):		COC No: 460-63223.1															
Client Contact: Shipping/Receiving		Phone:		E-Mail: Patricia.Grieco@Eurofinset.com		Page, Page 1 of 1															
Company: Eurofins Lancaster Laboratories Environm		Address: 2425 New Holland Pike,		City: Lancaster		State, Zip: PA, 17601															
Phone: 717-656-2300(Tel)		Email:		Project Name: 2456 Third Avenue , Bronx, NY		Site:															
Due Date Requested: 11/8/2021		TAT Requested (days):		Accreditations Required (See note): NELAP - New York		Job #: 460-246107-1															
PO #:		WO #:		Analysis Requested		Preservation Codes:															
Project #:		SSOW#:		Field Filtered Sample (Yes or No)		Other:															
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		PFC_IDA/Shake_Bath_14D NY 21 PFAS		PFC_IDA/3535_PFC NY 21 PFAS		Total Number of Containers		Special Instructions/Note:	
108_PE-22 (460-246107-1)		10/28/21		10:05 Eastern				Solid						X				1			
109_PE-23 (460-246107-2)		10/28/21		10:20 Eastern				Solid						X				1			
110_DUP-6 (460-246107-3)		10/28/21		10:30 Eastern				Solid						X				1			
111_PE-6 (460-246107-4)		10/28/21		10:45 Eastern				Solid						X				1			
113_FB-6 (460-246107-6)		10/28/21		11:45 Eastern				Water								X		1			
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.																					
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)											
Unconfirmed										☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months											
Deliverable Requested: I, II, III, IV, Other (specify)										Special Instructions/QC Requirements:											
Empty Kit Relinquished by:										Date: _____ Time: _____ Method of Shipment:											
Relinquished by: _____										Date/Time: 10/29/21 1610 Company: ET&E Received by: _____ Date/Time: 10/29/21 1610 Company: _____											
Relinquished by: _____										Date/Time: 10/29/21 2020 Company: _____ Received by: _____ Date/Time: _____ Company: _____											
Relinquished by: _____										Date/Time: _____ Company: _____ Received by: _____ Date/Time: 10/29/21 2020 Company: ET&E											
Custody Seals Intact: ☐ Yes ☐ No										Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: 15-24°C											

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-246107-1

Login Number: 246107

List Number: 1

Creator: Sgro, Angela M

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-246107-1

Login Number: 246107

List Number: 2

Creator: Cyms, Carolyn M

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 10/29/21 07:26 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-246437-1

Client Project/Site: 2455 Third Avenue, Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

3/4/2022 4:40:54 PM

Grace Chang, Project Manager II
(732)593-2579

Grace.Chang@Eurofinset.com

Designee for

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Grace Chang
Project Manager II
3/4/2022 4:40:54 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	10
Client Sample Results	14
Surrogate Summary	35
Isotope Dilution Summary	38
QC Sample Results	39
QC Association Summary	64
Lab Chronicle	70
Certification Summary	75
Method Summary	77
Sample Summary	78
Chain of Custody	79
Receipt Checklists	82



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
*	Duplicate analysis not within control limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Job ID: 460-246437-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue, Bronx, NY

Report Number: 460-246437-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 11/02/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 11/04/2021 and analyzed on 11/05/2021 and 11/06/2021.

The continuing calibration verification (CCV) associated with batch 460-811625 recovered above the upper control limit for trans-1,2-Dichloroethene. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 119_TB-8 (460-246437-6) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 11/04/2021.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Job ID: 460-246437-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 11/03/2021 and analyzed on 11/04/2021.

1,4-Dioxane failed the recovery criteria high for LCS 460-811216/2-A. 1,4-Dioxane failed the recovery criteria high for LCSD 460-811216/3-A. Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 11/03/2021 and analyzed on 11/04/2021.

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 11/03/2021 and analyzed on 11/04/2021.

Tetrachloro-m-xylene failed the surrogate recovery criteria low for 460-246428-E-7-A MS. Tetrachloro-m-xylene failed the surrogate recovery criteria low for 460-246428-E-7-B MSD. Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 11/03/2021 and analyzed on 11/04/2021.

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 11/04/2021 and analyzed on 11/06/2021.

The recovery for the labeled isotope(s) in the following samples: 114_PE-19 (460-246437-1) and 118_PE-19-NW (460-246437-5) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

The LCS/LCSD labeled isotope(s) recovery associated with samples: 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) is outside the QC acceptance limits. Since the recovery for target analytes is within the limits, the data is reported.

The recovery for the labeled isotope(s) in the method blank associated with samples: 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) is outside the QC

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Job ID: 460-246437-1 (Continued)

Laboratory: Eurofins Edison (Continued)

acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

The recovery for the labeled isotope(s) in the following samples: 114_PE-19 (460-246437-1) and 118_PE-19-NW (460-246437-5) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 11/08/2021 and analyzed on 11/09/2021.

Chromium was detected in method blank MB 460-812001/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Manganese failed the recovery criteria low for the MS of sample 460-246493-1 in batch 460-812063. Copper and Lead failed the recovery criteria high.

Refer to the QC report for details.

Copper and Lead exceeded the RPD limit for the duplicate of sample 460-246493-1. Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 11/06/2021 and analyzed on 11/07/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 11/08/2021.

Mercury failed the recovery criteria low for the MS of sample 460-246205-1 in batch 460-812039.

Mercury failed the recovery criteria low for the MSD of sample 460-246205-1 in batch 460-812039.

Refer to the QC report for details.

Sample 118_PE-19-NW (460-246437-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Hg analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Job ID: 460-246437-1 (Continued)

Laboratory: Eurofins Edison (Continued)

TRIVALENT CHROMIUM

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 11/07/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 11/06/2021 and analyzed on 11/07/2021.

Cyanide, Total failed the recovery criteria high for the MS of sample 117_PE-19-SWMS (460-246437-4) in batch 460-811950.

Cyanide, Total failed the recovery criteria high for the MSD of sample 117_PE-19-SWMSD (460-246437-4) in batch 460-811950.

Cyanide, Total failed the recovery criteria high for the MS of sample 460-246521-1 in batch 460-811950.

Cyanide, Total failed the recovery criteria high for the MSD of sample 460-246521-1 in batch 460-811950.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 114_PE-19 (460-246437-1), 115_PE-19-NE (460-246437-2), 116_PE-19-SE (460-246437-3), 117_PE-19-SW (460-246437-4) and 118_PE-19-NW (460-246437-5) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 11/05/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 114_PE-19

Lab Sample ID: 460-246437-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.0		5.3	5.0	ug/Kg	1	✱	8260D	Total/NA
Naphthalene	20	J	390	6.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	6.1	J	390	3.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	33	J	390	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	13	J	390	5.5	ug/Kg	1	✱	8270E	Total/NA
Fluorene	21	J	390	5.3	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	300	J	390	6.9	ug/Kg	1	✱	8270E	Total/NA
Anthracene	56	J	390	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	460		390	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	410		390	9.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	200		39	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	210	J	390	6.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	240		39	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	100		39	7.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	180		39	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	160		39	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	19	J	39	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	110	J	390	12	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	47		7.9	1.3	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	35		7.9	1.5	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.25	J	0.66	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.68	J	1.1	0.098	mg/Kg	1	✱	6020B	Total/NA
Arsenic	2.8		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	59.2		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.38	J	0.44	0.062	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.33	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.9	B	2.2	0.29	mg/Kg	1	✱	6020B	Total/NA
Copper	39.3		2.2	0.40	mg/Kg	1	✱	6020B	Total/NA
Manganese	209		4.4	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	12.3		2.2	0.51	mg/Kg	1	✱	6020B	Total/NA
Lead	93.0		0.66	0.22	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.28	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	128		8.8	3.3	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.18		0.018	0.0086	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.9		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 115_PE-19-NE

Lab Sample ID: 460-246437-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	130	J	390	6.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	92	J	390	3.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	370	J	390	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	140	J	390	5.5	ug/Kg	1	✱	8270E	Total/NA
Fluorene	290	J	390	5.3	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	3300		390	6.9	ug/Kg	1	✱	8270E	Total/NA
Anthracene	650		390	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	3900		390	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	4000		390	9.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	2000		39	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	2100		390	6.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	2400		39	10	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 115_PE-19-NE (Continued)

Lab Sample ID: 460-246437-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	850		39	7.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	1900		39	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	1400		39	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	230		39	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	1100		390	12	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	130		7.9	1.3	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	64		7.9	1.5	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.68	J	0.70	0.23	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.24	J	1.1	0.099	mg/Kg	1	✱	6020B	Total/NA
Arsenic	3.3		1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	83.7		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.41	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.34	J	1.1	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.3	B	2.2	0.30	mg/Kg	1	✱	6020B	Total/NA
Copper	31.0		2.2	0.41	mg/Kg	1	✱	6020B	Total/NA
Manganese	180		4.5	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	14.7		2.2	0.52	mg/Kg	1	✱	6020B	Total/NA
Lead	220		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.33	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	114		8.9	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.25		0.020	0.0095	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 116_PE-19-SE

Lab Sample ID: 460-246437-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	150	J	380	6.7	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	67	J	380	3.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	47	J	380	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	52	J	380	5.4	ug/Kg	1	✱	8270E	Total/NA
Fluorene	67	J	380	5.2	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	960		380	6.8	ug/Kg	1	✱	8270E	Total/NA
Anthracene	150	J	380	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	1400		380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	1200		380	9.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	550		38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	610		380	6.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	790		38	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	280		38	7.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	560		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	500		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	89		38	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	340	J	380	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	92		7.8	1.3	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	57		7.8	1.4	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.32	J	0.69	0.23	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	3.2		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	81.1		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.64		0.44	0.063	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.23	J	1.1	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	17.9	B	2.2	0.30	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 116_PE-19-SE (Continued)

Lab Sample ID: 460-246437-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	31.2		2.2	0.41	mg/Kg	1	✱	6020B	Total/NA
Manganese	346		4.4	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	20.4		2.2	0.52	mg/Kg	1	✱	6020B	Total/NA
Lead	100		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.20	J	1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	126		8.9	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.33		0.019	0.0090	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	17.9		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 117_PE-19-SW

Lab Sample ID: 460-246437-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	450		430	7.4	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	21	J	430	4.3	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	290	J	430	12	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	280	J	430	6.0	ug/Kg	1	✱	8270E	Total/NA
Fluorene	230	J	430	5.8	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	3500		430	7.5	ug/Kg	1	✱	8270E	Total/NA
Anthracene	460		430	13	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	3400		430	15	ug/Kg	1	✱	8270E	Total/NA
Pyrene	2700		430	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	1300		43	15	ug/Kg	1	✱	8270E	Total/NA
Chrysene	1500		430	7.2	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	1700		43	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	630		43	8.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	1200		43	11	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	690		43	17	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	190		43	18	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	560		430	13	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	4.0	J	8.6	1.5	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	25		8.6	1.6	ug/Kg	1	✱	8081B	Total/NA
Silver	0.34	J	1.2	0.11	mg/Kg	1	✱	6020B	Total/NA
Arsenic	1.9		1.2	0.13	mg/Kg	1	✱	6020B	Total/NA
Barium	42.5		2.4	0.18	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.38	J	0.49	0.069	mg/Kg	1	✱	6020B	Total/NA
Chromium	10.6	B	2.4	0.32	mg/Kg	1	✱	6020B	Total/NA
Copper	13.2		2.4	0.45	mg/Kg	1	✱	6020B	Total/NA
Manganese	133		4.9	0.49	mg/Kg	1	✱	6020B	Total/NA
Nickel	9.6		2.4	0.57	mg/Kg	1	✱	6020B	Total/NA
Lead	41.1		0.73	0.24	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.16	J	1.5	0.16	mg/Kg	1	✱	6020B	Total/NA
Zinc	45.5		9.7	3.7	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.32		0.021	0.0098	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	10.6		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cyanide, Total	0.19	J	0.24	0.13	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 118_PE-19-NW

Lab Sample ID: 460-246437-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	63	J	400	7.0	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	58	J	400	4.1	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	48	J	400	12	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 118_PE-19-NW (Continued)

Lab Sample ID: 460-246437-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenzofuran	33	J	400	5.7	ug/Kg	1	✱	8270E	Total/NA
Fluorene	58	J	400	5.5	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	860		400	7.1	ug/Kg	1	✱	8270E	Total/NA
Anthracene	200	J	400	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	1500		400	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	1400		400	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	750		40	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	640		400	6.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	800		40	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	320		40	8.0	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	630		40	11	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	430		40	16	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	56		40	18	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	280	J	400	12	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	17		8.2	1.4	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	11		8.2	1.5	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.99		0.72	0.24	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.43	J	1.1	0.10	mg/Kg	1	✱	6020B	Total/NA
Arsenic	3.7		1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	162		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.37	J	0.46	0.065	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.37	J	1.1	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	13.3	B	2.3	0.31	mg/Kg	1	✱	6020B	Total/NA
Copper	41.1		2.3	0.42	mg/Kg	1	✱	6020B	Total/NA
Manganese	258		4.6	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	13.8		2.3	0.54	mg/Kg	1	✱	6020B	Total/NA
Lead	806		0.69	0.23	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.46	J	1.4	0.15	mg/Kg	1	✱	6020B	Total/NA
Zinc	179		9.2	3.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	2.6		0.098	0.046	mg/Kg	5	✱	7471B	Total/NA
Cr (III)	13.3		2.0	2.0	mg/Kg	1	✱	7196A	Total/NA
Cyanide, Total	0.22	J	0.25	0.14	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 119_TB-8

Lab Sample ID: 460-246437-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 114_PE-19

Lab Sample ID: 460-246437-1

Date Collected: 11/02/21 08:15

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.88	U	0.88	0.20	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,1-Dichloroethane	0.88	U	0.88	0.18	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,1-Dichloroethene	0.88	U	0.88	0.20	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,2,4-Trimethylbenzene	0.88	U	0.88	0.22	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,2-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,2-Dichloroethane	0.88	U	0.88	0.26	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,3,5-Trimethylbenzene	0.88	U	0.88	0.27	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,3-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,4-Dichlorobenzene	0.88	U	0.88	0.20	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
1,4-Dioxane	18	U	18	8.0	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
2-Butanone (MEK)	4.4	U	4.4	0.32	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Acetone	7.0		5.3	5.0	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Benzene	0.88	U	0.88	0.23	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Carbon tetrachloride	0.88	U	0.88	0.34	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Chlorobenzene	0.88	U	0.88	0.15	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Chloroform	0.88	U	0.88	0.85	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
cis-1,2-Dichloroethene	0.88	U	0.88	0.31	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Ethylbenzene	0.88	U	0.88	0.17	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Methyl tert-butyl ether	0.88	U	0.88	0.45	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
n-Butylbenzene	0.88	U	0.88	0.26	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
N-Propylbenzene	0.88	U	0.88	0.15	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
sec-Butylbenzene	0.88	U	0.88	0.25	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
tert-Butylbenzene	0.88	U	0.88	0.24	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Tetrachloroethene	0.88	U	0.88	0.27	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Toluene	0.88	U	0.88	0.20	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
trans-1,2-Dichloroethene	0.88	U	0.88	0.22	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Trichloroethene	0.88	U	0.88	0.28	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Vinyl chloride	0.88	U	0.88	0.48	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1
Xylenes, Total	1.8	U	1.8	0.56	ug/Kg	✱	11/04/21 09:40	11/05/21 23:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 145	11/04/21 09:40	11/05/21 23:17	1
4-Bromofluorobenzene	97		70 - 139	11/04/21 09:40	11/05/21 23:17	1
Dibromofluoromethane (Surr)	106		48 - 150	11/04/21 09:40	11/05/21 23:17	1
Toluene-d8 (Surr)	94		80 - 120	11/04/21 09:40	11/05/21 23:17	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
2-Methylphenol	390	U	390	15	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Pentachlorophenol	310	U	310	80	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Naphthalene	20	J	390	6.8	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Acenaphthylene	6.1	J	390	3.9	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Acenaphthene	33	J	390	11	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Dibenzofuran	13	J	390	5.5	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Fluorene	21	J	390	5.3	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Hexachlorobenzene	39	U	39	19	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Phenanthrene	300	J	390	6.9	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 114_PE-19

Lab Sample ID: 460-246437-1

Date Collected: 11/02/21 08:15

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	56	J	390	12	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Fluoranthene	460		390	14	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Pyrene	410		390	9.7	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Benzo[a]anthracene	200		39	14	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Chrysene	210	J	390	6.6	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Benzo[b]fluoranthene	240		39	10	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Benzo[k]fluoranthene	100		39	7.7	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Benzo[a]pyrene	180		39	10	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Indeno[1,2,3-cd]pyrene	160		39	15	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Dibenz(a,h)anthracene	19	J	39	17	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
Benzo[g,h,i]perylene	110	J	390	12	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1
1,4-Dioxane	39	U *	39	34	ug/Kg	✱	11/03/21 22:49	11/04/21 12:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	82		11 - 104	11/03/21 22:49	11/04/21 12:50	1
Phenol-d5 (Surr)	79		15 - 100	11/03/21 22:49	11/04/21 12:50	1
Terphenyl-d14 (Surr)	85		12 - 126	11/03/21 22:49	11/04/21 12:50	1
2,4,6-Tribromophenol (Surr)	86		10 - 123	11/03/21 22:49	11/04/21 12:50	1
2-Fluorophenol (Surr)	81		10 - 105	11/03/21 22:49	11/04/21 12:50	1
2-Fluorobiphenyl	76		14 - 103	11/03/21 22:49	11/04/21 12:50	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	47		7.9	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
4,4'-DDE	7.9	U	7.9	0.93	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
4,4'-DDT	35		7.9	1.5	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Aldrin	7.9	U	7.9	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
alpha-BHC	2.4	U	2.4	0.80	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
beta-BHC	2.4	U	2.4	0.89	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Chlordane (technical)	79	U	79	19	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Endosulfan I	7.9	U	7.9	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Endosulfan II	7.9	U	7.9	2.0	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Endosulfan sulfate	7.9	U	7.9	0.99	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Endrin	7.9	U	7.9	1.1	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Endrin aldehyde	7.9	U	7.9	1.9	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Endrin ketone	7.9	U	7.9	1.5	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
gamma-BHC (Lindane)	2.4	U	2.4	0.73	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Heptachlor	7.9	U	7.9	0.93	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Heptachlor epoxide	7.9	U	7.9	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Methoxychlor	7.9	U	7.9	1.8	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
Toxaphene	79	U	79	29	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1
cis-Chlordane	7.9	U	7.9	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 08:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 150	11/03/21 18:24	11/04/21 08:40	1
DCB Decachlorobiphenyl	98		10 - 150	11/03/21 18:24	11/04/21 08:40	1
Tetrachloro-m-xylene	47		10 - 133	11/03/21 18:24	11/04/21 08:40	1
Tetrachloro-m-xylene	91		10 - 133	11/03/21 18:24	11/04/21 08:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 114_PE-19

Lab Sample ID: 460-246437-1

Date Collected: 11/02/21 08:15

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Aroclor 1221	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Aroclor 1232	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Aroclor 1242	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Aroclor 1248	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Aroclor 1254	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Aroclor 1260	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Aroclor-1262	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Aroclor 1268	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1
Polychlorinated biphenyls, Total	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		37 - 150	11/03/21 18:08	11/04/21 12:11	1
DCB Decachlorobiphenyl	96		37 - 150	11/03/21 18:08	11/04/21 12:11	1
Tetrachloro-m-xylene	88		54 - 150	11/03/21 18:08	11/04/21 12:11	1
Tetrachloro-m-xylene	85		54 - 150	11/03/21 18:08	11/04/21 12:11	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	✱	11/03/21 23:57	11/04/21 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	81		65 - 150	11/03/21 23:57	11/04/21 15:50	1
2,4-Dichlorophenylacetic acid	130		65 - 150	11/03/21 23:57	11/04/21 15:50	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluoroheptanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorooctanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorononanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorodecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorotridecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorotetradecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorobutanesulfonic acid	2.21	U	2.21	0.44	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorohexanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorooctanesulfonic acid	0.25	J	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
NEtFOSAA	2.21	U	2.21	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
NMeFOSAA	2.21	U	2.21	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluoroheptanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorodecanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorooctanesulfonamide	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorobutanoic acid	2.21	U	2.21	0.88	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluoroundecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluorododecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
6:2 Fluorotelomer sulfonic acid	2.21	U	2.21	0.66	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
8:2 Fluorotelomer sulfonic acid	3.32	U	3.32	0.66	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1
Perfluoropentanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/04/21 18:39	11/06/21 17:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	143		10 - 178	11/04/21 18:39	11/06/21 17:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 114_PE-19

Lab Sample ID: 460-246437-1

Date Collected: 11/02/21 08:15

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	128		10 - 182	11/04/21 18:39	11/06/21 17:12	1
13C5 PFHxA	123		11 - 138	11/04/21 18:39	11/06/21 17:12	1
13C4 PFHpA	125		15 - 139	11/04/21 18:39	11/06/21 17:12	1
13C8 PFOA	121		21 - 133	11/04/21 18:39	11/06/21 17:12	1
13C9 PFNA	121		15 - 145	11/04/21 18:39	11/06/21 17:12	1
13C6 PFDA	124		21 - 134	11/04/21 18:39	11/06/21 17:12	1
13C7 PFUnA	122		15 - 138	11/04/21 18:39	11/06/21 17:12	1
13C2-PFDoDA	124		28 - 126	11/04/21 18:39	11/06/21 17:12	1
13C2 PFTeDA	122		10 - 138	11/04/21 18:39	11/06/21 17:12	1
13C3 PFBS	138 *		23 - 130	11/04/21 18:39	11/06/21 17:12	1
13C3 PFHxS	136		24 - 136	11/04/21 18:39	11/06/21 17:12	1
13C8 PFOS	128		31 - 130	11/04/21 18:39	11/06/21 17:12	1
d3-NMeFOSAA	75		10 - 172	11/04/21 18:39	11/06/21 17:12	1
d5-NEtFOSAA	101		10 - 176	11/04/21 18:39	11/06/21 17:12	1
13C8 FOSA	117		25 - 135	11/04/21 18:39	11/06/21 17:12	1
13C4 PFBA	124		12 - 137	11/04/21 18:39	11/06/21 17:12	1
13C5 PFPeA	134		12 - 135	11/04/21 18:39	11/06/21 17:12	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.68	J	1.1	0.098	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Arsenic	2.8		1.1	0.11	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Barium	59.2		2.2	0.16	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Beryllium	0.38	J	0.44	0.062	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Cadmium	0.33	J	1.1	0.12	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Chromium	11.9	B	2.2	0.29	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Copper	39.3		2.2	0.40	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Manganese	209		4.4	0.44	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Nickel	12.3		2.2	0.51	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Lead	93.0		0.66	0.22	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Selenium	0.28	J	1.4	0.14	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1
Zinc	128		8.8	3.3	mg/Kg	✱	11/08/21 04:22	11/09/21 01:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.18		0.018	0.0086	mg/Kg	✱	11/08/21 02:40	11/08/21 07:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.9		2.0	2.0	mg/Kg			11/07/21 20:42	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	11/06/21 10:53	11/07/21 12:31	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	11/06/21 08:53	11/07/21 13:21	1
Percent Moisture	15.5		1.0	1.0	%			11/05/21 02:12	1
Percent Solids	84.5		1.0	1.0	%			11/05/21 02:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 115_PE-19-NE

Lab Sample ID: 460-246437-2

Date Collected: 11/02/21 08:25

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.84	U	0.84	0.19	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,1-Dichloroethane	0.84	U	0.84	0.17	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,1-Dichloroethene	0.84	U	0.84	0.19	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,2,4-Trimethylbenzene	0.84	U	0.84	0.21	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,2-Dichlorobenzene	0.84	U	0.84	0.30	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,2-Dichloroethane	0.84	U	0.84	0.25	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,3,5-Trimethylbenzene	0.84	U	0.84	0.26	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,3-Dichlorobenzene	0.84	U	0.84	0.31	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,4-Dichlorobenzene	0.84	U	0.84	0.19	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
1,4-Dioxane	17	U	17	7.7	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
2-Butanone (MEK)	4.2	U	4.2	0.31	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Acetone	5.0	U	5.0	4.8	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Benzene	0.84	U	0.84	0.22	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Carbon tetrachloride	0.84	U	0.84	0.32	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Chlorobenzene	0.84	U	0.84	0.15	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Chloroform	0.84	U	0.84	0.81	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
cis-1,2-Dichloroethene	0.84	U	0.84	0.30	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Ethylbenzene	0.84	U	0.84	0.17	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Methyl tert-butyl ether	0.84	U	0.84	0.43	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Methylene Chloride	1.7	U	1.7	0.96	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
n-Butylbenzene	0.84	U	0.84	0.25	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
N-Propylbenzene	0.84	U	0.84	0.15	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
sec-Butylbenzene	0.84	U	0.84	0.24	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
tert-Butylbenzene	0.84	U	0.84	0.23	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Tetrachloroethene	0.84	U	0.84	0.25	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Toluene	0.84	U	0.84	0.20	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
trans-1,2-Dichloroethene	0.84	U	0.84	0.21	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Trichloroethene	0.84	U	0.84	0.27	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Vinyl chloride	0.84	U	0.84	0.46	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1
Xylenes, Total	1.7	U	1.7	0.54	ug/Kg	☆	11/04/21 09:40	11/05/21 23:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 145	11/04/21 09:40	11/05/21 23:39	1
4-Bromofluorobenzene	97		70 - 139	11/04/21 09:40	11/05/21 23:39	1
Dibromofluoromethane (Surr)	107		48 - 150	11/04/21 09:40	11/05/21 23:39	1
Toluene-d8 (Surr)	94		80 - 120	11/04/21 09:40	11/05/21 23:39	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
2-Methylphenol	390	U	390	15	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
Pentachlorophenol	310	U	310	80	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
Naphthalene	130	J	390	6.8	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
Acenaphthylene	92	J	390	3.9	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
Acenaphthene	370	J	390	11	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
Dibenzofuran	140	J	390	5.5	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
Fluorene	290	J	390	5.3	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
Hexachlorobenzene	39	U	39	19	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1
Phenanthrene	3300		390	6.9	ug/Kg	☆	11/03/21 22:49	11/04/21 13:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 115_PE-19-NE

Lab Sample ID: 460-246437-2

Date Collected: 11/02/21 08:25

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	650		390	12	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Fluoranthene	3900		390	14	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Pyrene	4000		390	9.7	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Benzo[a]anthracene	2000		39	14	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Chrysene	2100		390	6.6	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Benzo[b]fluoranthene	2400		39	10	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Benzo[k]fluoranthene	850		39	7.7	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Benzo[a]pyrene	1900		39	10	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Indeno[1,2,3-cd]pyrene	1400		39	15	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Dibenz(a,h)anthracene	230		39	17	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
Benzo[g,h,i]perylene	1100		390	12	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1
1,4-Dioxane	39	U *	39	34	ug/Kg	✱	11/03/21 22:49	11/04/21 13:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	76		11 - 104	11/03/21 22:49	11/04/21 13:24	1
Phenol-d5 (Surr)	75		15 - 100	11/03/21 22:49	11/04/21 13:24	1
Terphenyl-d14 (Surr)	83		12 - 126	11/03/21 22:49	11/04/21 13:24	1
2,4,6-Tribromophenol (Surr)	88		10 - 123	11/03/21 22:49	11/04/21 13:24	1
2-Fluorophenol (Surr)	77		10 - 105	11/03/21 22:49	11/04/21 13:24	1
2-Fluorobiphenyl	75		14 - 103	11/03/21 22:49	11/04/21 13:24	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	130		7.9	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
4,4'-DDE	7.9	U	7.9	0.94	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
4,4'-DDT	64		7.9	1.5	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Aldrin	7.9	U	7.9	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
alpha-BHC	2.4	U	2.4	0.80	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
beta-BHC	2.4	U	2.4	0.89	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Chlordane (technical)	79	U	79	19	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Endosulfan I	7.9	U	7.9	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Endosulfan II	7.9	U	7.9	2.0	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Endosulfan sulfate	7.9	U	7.9	0.99	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Endrin	7.9	U	7.9	1.1	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Endrin aldehyde	7.9	U	7.9	1.9	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Endrin ketone	7.9	U	7.9	1.5	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
gamma-BHC (Lindane)	2.4	U	2.4	0.73	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Heptachlor	7.9	U	7.9	0.94	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Heptachlor epoxide	7.9	U	7.9	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Methoxychlor	7.9	U	7.9	1.8	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
Toxaphene	79	U	79	29	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1
cis-Chlordane	7.9	U	7.9	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 08:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 150	11/03/21 18:24	11/04/21 08:54	1
DCB Decachlorobiphenyl	90		10 - 150	11/03/21 18:24	11/04/21 08:54	1
Tetrachloro-m-xylene	84		10 - 133	11/03/21 18:24	11/04/21 08:54	1
Tetrachloro-m-xylene	86		10 - 133	11/03/21 18:24	11/04/21 08:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 115_PE-19-NE

Lab Sample ID: 460-246437-2

Date Collected: 11/02/21 08:25

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Aroclor 1221	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Aroclor 1232	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Aroclor 1242	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Aroclor 1248	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Aroclor 1254	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Aroclor 1260	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Aroclor-1262	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Aroclor 1268	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1
Polychlorinated biphenyls, Total	79	U	79	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		37 - 150	11/03/21 18:08	11/04/21 12:28	1
DCB Decachlorobiphenyl	99		37 - 150	11/03/21 18:08	11/04/21 12:28	1
Tetrachloro-m-xylene	93		54 - 150	11/03/21 18:08	11/04/21 12:28	1
Tetrachloro-m-xylene	89		54 - 150	11/03/21 18:08	11/04/21 12:28	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	✱	11/03/21 23:57	11/04/21 16:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	83		65 - 150	11/03/21 23:57	11/04/21 16:03	1
2,4-Dichlorophenylacetic acid	154	*	65 - 150	11/03/21 23:57	11/04/21 16:03	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluoroheptanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorooctanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorononanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorodecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorotridecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorotetradecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorobutanesulfonic acid	2.32	U	2.32	0.46	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorohexanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorooctanesulfonic acid	0.68	J	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
NEtFOSAA	2.32	U	2.32	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
NMeFOSAA	2.32	U	2.32	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluoroheptanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorodecanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorooctanesulfonamide	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorobutanoic acid	2.32	U	2.32	0.93	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluoroundecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluorododecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
6:2 Fluorotelomer sulfonic acid	2.32	U	2.32	0.70	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
8:2 Fluorotelomer sulfonic acid	3.48	U	3.48	0.70	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1
Perfluoropentanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:23	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	146		10 - 178	11/04/21 18:39	11/06/21 17:23	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 115_PE-19-NE

Lab Sample ID: 460-246437-2

Date Collected: 11/02/21 08:25

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	104		10 - 182	11/04/21 18:39	11/06/21 17:23	1
13C5 PFHxA	104		11 - 138	11/04/21 18:39	11/06/21 17:23	1
13C4 PFHpA	105		15 - 139	11/04/21 18:39	11/06/21 17:23	1
13C8 PFOA	104		21 - 133	11/04/21 18:39	11/06/21 17:23	1
13C9 PFNA	106		15 - 145	11/04/21 18:39	11/06/21 17:23	1
13C6 PFDA	106		21 - 134	11/04/21 18:39	11/06/21 17:23	1
13C7 PFUnA	100		15 - 138	11/04/21 18:39	11/06/21 17:23	1
13C2-PFDoDA	101		28 - 126	11/04/21 18:39	11/06/21 17:23	1
13C2 PFTeDA	99		10 - 138	11/04/21 18:39	11/06/21 17:23	1
13C3 PFBS	116		23 - 130	11/04/21 18:39	11/06/21 17:23	1
13C3 PFHxS	115		24 - 136	11/04/21 18:39	11/06/21 17:23	1
13C8 PFOS	104		31 - 130	11/04/21 18:39	11/06/21 17:23	1
d3-NMeFOSAA	84		10 - 172	11/04/21 18:39	11/06/21 17:23	1
d5-NEtFOSAA	104		10 - 176	11/04/21 18:39	11/06/21 17:23	1
13C8 FOSA	103		25 - 135	11/04/21 18:39	11/06/21 17:23	1
13C4 PFBA	105		12 - 137	11/04/21 18:39	11/06/21 17:23	1
13C5 PFPeA	110		12 - 135	11/04/21 18:39	11/06/21 17:23	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.24	J	1.1	0.099	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Arsenic	3.3		1.1	0.12	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Barium	83.7		2.2	0.16	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Beryllium	0.41	J	0.45	0.064	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Cadmium	0.34	J	1.1	0.13	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Chromium	11.3	B	2.2	0.30	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Copper	31.0		2.2	0.41	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Manganese	180		4.5	0.45	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Nickel	14.7		2.2	0.52	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Lead	220		0.67	0.22	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Selenium	0.33	J	1.4	0.14	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1
Zinc	114		8.9	3.4	mg/Kg	✱	11/08/21 04:22	11/09/21 01:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.25		0.020	0.0095	mg/Kg	✱	11/08/21 02:40	11/08/21 07:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.3		2.0	2.0	mg/Kg			11/07/21 20:42	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	11/06/21 10:53	11/07/21 12:31	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	11/06/21 08:53	11/07/21 13:22	1
Percent Moisture	15.5		1.0	1.0	%			11/05/21 02:12	1
Percent Solids	84.5		1.0	1.0	%			11/05/21 02:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 116_PE-19-SE

Lab Sample ID: 460-246437-3

Date Collected: 11/02/21 08:35

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 85.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.87	U	0.87	0.20	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,1-Dichloroethane	0.87	U	0.87	0.18	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,1-Dichloroethene	0.87	U	0.87	0.20	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,2,4-Trimethylbenzene	0.87	U	0.87	0.21	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,2-Dichlorobenzene	0.87	U	0.87	0.32	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,2-Dichloroethane	0.87	U	0.87	0.26	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,3,5-Trimethylbenzene	0.87	U	0.87	0.27	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,3-Dichlorobenzene	0.87	U	0.87	0.32	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,4-Dichlorobenzene	0.87	U	0.87	0.20	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
1,4-Dioxane	17	U	17	8.0	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
2-Butanone (MEK)	4.4	U	4.4	0.32	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Acetone	5.2	U	5.2	5.0	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Benzene	0.87	U	0.87	0.23	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Carbon tetrachloride	0.87	U	0.87	0.34	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Chlorobenzene	0.87	U	0.87	0.15	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Chloroform	0.87	U	0.87	0.85	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
cis-1,2-Dichloroethene	0.87	U	0.87	0.31	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Ethylbenzene	0.87	U	0.87	0.17	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Methyl tert-butyl ether	0.87	U	0.87	0.45	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Methylene Chloride	1.7	U	1.7	1.0	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
n-Butylbenzene	0.87	U	0.87	0.26	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
N-Propylbenzene	0.87	U	0.87	0.15	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
sec-Butylbenzene	0.87	U	0.87	0.25	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
tert-Butylbenzene	0.87	U	0.87	0.24	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Tetrachloroethene	0.87	U	0.87	0.27	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Toluene	0.87	U	0.87	0.20	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
trans-1,2-Dichloroethene	0.87	U	0.87	0.21	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Trichloroethene	0.87	U	0.87	0.28	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Vinyl chloride	0.87	U	0.87	0.48	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1
Xylenes, Total	1.7	U	1.7	0.56	ug/Kg	✱	11/04/21 09:41	11/06/21 00:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 145	11/04/21 09:41	11/06/21 00:00	1
4-Bromofluorobenzene	99		70 - 139	11/04/21 09:41	11/06/21 00:00	1
Dibromofluoromethane (Surr)	104		48 - 150	11/04/21 09:41	11/06/21 00:00	1
Toluene-d8 (Surr)	94		80 - 120	11/04/21 09:41	11/06/21 00:00	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
2-Methylphenol	380	U	380	14	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Pentachlorophenol	310	U	310	79	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Naphthalene	150	J	380	6.7	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Acenaphthylene	67	J	380	3.9	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Acenaphthene	47	J	380	11	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Dibenzofuran	52	J	380	5.4	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Fluorene	67	J	380	5.2	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Hexachlorobenzene	38	U	38	18	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Phenanthrene	960		380	6.8	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 116_PE-19-SE

Lab Sample ID: 460-246437-3

Date Collected: 11/02/21 08:35

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 85.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	150	J	380	12	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Fluoranthene	1400		380	13	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Pyrene	1200		380	9.6	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Benzo[a]anthracene	550		38	13	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Chrysene	610		380	6.5	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Benzo[b]fluoranthene	790		38	10	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Benzo[k]fluoranthene	280		38	7.6	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Benzo[a]pyrene	560		38	10	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Indeno[1,2,3-cd]pyrene	500		38	15	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Dibenz(a,h)anthracene	89		38	17	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
Benzo[g,h,i]perylene	340	J	380	11	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1
1,4-Dioxane	38	U *	38	34	ug/Kg	✱	11/03/21 22:49	11/04/21 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	79		11 - 104	11/03/21 22:49	11/04/21 15:07	1
Phenol-d5 (Surr)	78		15 - 100	11/03/21 22:49	11/04/21 15:07	1
Terphenyl-d14 (Surr)	84		12 - 126	11/03/21 22:49	11/04/21 15:07	1
2,4,6-Tribromophenol (Surr)	91		10 - 123	11/03/21 22:49	11/04/21 15:07	1
2-Fluorophenol (Surr)	79		10 - 105	11/03/21 22:49	11/04/21 15:07	1
2-Fluorobiphenyl	76		14 - 103	11/03/21 22:49	11/04/21 15:07	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	92		7.8	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
4,4'-DDE	7.8	U	7.8	0.92	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
4,4'-DDT	57		7.8	1.4	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Chlordane (technical)	78	U	78	19	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Endrin	7.8	U	7.8	1.1	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Heptachlor	7.8	U	7.8	0.92	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
Toxaphene	78	U	78	28	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		10 - 150	11/03/21 18:24	11/04/21 09:09	1
DCB Decachlorobiphenyl	98		10 - 150	11/03/21 18:24	11/04/21 09:09	1
Tetrachloro-m-xylene	88		10 - 133	11/03/21 18:24	11/04/21 09:09	1
Tetrachloro-m-xylene	90		10 - 133	11/03/21 18:24	11/04/21 09:09	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 116_PE-19-SE

Lab Sample ID: 460-246437-3

Date Collected: 11/02/21 08:35

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Aroclor 1221	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Aroclor 1232	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Aroclor 1242	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Aroclor 1248	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Aroclor 1254	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Aroclor 1260	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Aroclor-1262	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Aroclor 1268	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	✱	11/03/21 18:08	11/04/21 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		37 - 150	11/03/21 18:08	11/04/21 12:45	1
DCB Decachlorobiphenyl	88		37 - 150	11/03/21 18:08	11/04/21 12:45	1
Tetrachloro-m-xylene	80		54 - 150	11/03/21 18:08	11/04/21 12:45	1
Tetrachloro-m-xylene	77		54 - 150	11/03/21 18:08	11/04/21 12:45	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.0	ug/Kg	✱	11/03/21 23:57	11/04/21 16:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	105		65 - 150	11/03/21 23:57	11/04/21 16:17	1
2,4-Dichlorophenylacetic acid	159	*	65 - 150	11/03/21 23:57	11/04/21 16:17	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluoroheptanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorooctanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorononanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorodecanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorotridecanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorotetradecanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorobutanesulfonic acid	2.31	U	2.31	0.46	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorohexanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorooctanesulfonic acid	0.32	J	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
NEtFOSAA	2.31	U	2.31	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
NMeFOSAA	2.31	U	2.31	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluoroheptanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorodecanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorooctanesulfonamide	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorobutanoic acid	2.31	U	2.31	0.92	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluoroundecanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluorododecanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
6:2 Fluorotelomer sulfonic acid	2.31	U	2.31	0.69	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
8:2 Fluorotelomer sulfonic acid	3.46	U	3.46	0.69	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1
Perfluoropentanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	11/04/21 18:39	11/06/21 17:34	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	135		10 - 178	11/04/21 18:39	11/06/21 17:34	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 116_PE-19-SE

Lab Sample ID: 460-246437-3

Date Collected: 11/02/21 08:35

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 85.9

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	115		10 - 182	11/04/21 18:39	11/06/21 17:34	1
13C5 PFHxA	109		11 - 138	11/04/21 18:39	11/06/21 17:34	1
13C4 PFHpA	116		15 - 139	11/04/21 18:39	11/06/21 17:34	1
13C8 PFOA	113		21 - 133	11/04/21 18:39	11/06/21 17:34	1
13C9 PFNA	119		15 - 145	11/04/21 18:39	11/06/21 17:34	1
13C6 PFDA	112		21 - 134	11/04/21 18:39	11/06/21 17:34	1
13C7 PFUnA	118		15 - 138	11/04/21 18:39	11/06/21 17:34	1
13C2-PFDoDA	111		28 - 126	11/04/21 18:39	11/06/21 17:34	1
13C2 PFTeDA	110		10 - 138	11/04/21 18:39	11/06/21 17:34	1
13C3 PFBS	126		23 - 130	11/04/21 18:39	11/06/21 17:34	1
13C3 PFHxS	122		24 - 136	11/04/21 18:39	11/06/21 17:34	1
13C8 PFOS	119		31 - 130	11/04/21 18:39	11/06/21 17:34	1
d3-NMeFOSAA	107		10 - 172	11/04/21 18:39	11/06/21 17:34	1
d5-NEtFOSAA	136		10 - 176	11/04/21 18:39	11/06/21 17:34	1
13C8 FOSA	116		25 - 135	11/04/21 18:39	11/06/21 17:34	1
13C4 PFBA	114		12 - 137	11/04/21 18:39	11/06/21 17:34	1
13C5 PFPeA	122		12 - 135	11/04/21 18:39	11/06/21 17:34	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.099	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Arsenic	3.2		1.1	0.11	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Barium	81.1		2.2	0.16	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Beryllium	0.64		0.44	0.063	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Cadmium	0.23	J	1.1	0.13	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Chromium	17.9	B	2.2	0.30	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Copper	31.2		2.2	0.41	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Manganese	346		4.4	0.45	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Nickel	20.4		2.2	0.52	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Lead	100		0.67	0.22	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Selenium	0.20	J	1.4	0.14	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1
Zinc	126		8.9	3.4	mg/Kg	✱	11/08/21 04:22	11/09/21 01:07	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.33		0.019	0.0090	mg/Kg	✱	11/08/21 02:40	11/08/21 07:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	17.9		2.0	2.0	mg/Kg			11/07/21 20:42	1
Cr (VI)	2.3	U	2.3	0.99	mg/Kg	✱	11/06/21 10:53	11/07/21 12:31	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	11/06/21 08:53	11/07/21 13:23	1
Percent Moisture	14.1		1.0	1.0	%			11/05/21 02:12	1
Percent Solids	85.9		1.0	1.0	%			11/05/21 02:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 117_PE-19-SW

Lab Sample ID: 460-246437-4

Date Collected: 11/02/21 08:45

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 77.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,2-Dichloroethane	1.0	U	1.0	0.31	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.32	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.38	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
1,4-Dioxane	21	U	21	9.5	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
2-Butanone (MEK)	5.2	U	5.2	0.38	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Acetone	6.2	U	6.2	5.9	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Benzene	1.0	U	1.0	0.27	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Carbon tetrachloride	1.0	U	1.0	0.40	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Chloroform	1.0	U	1.0	1.0	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.37	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Ethylbenzene	1.0	U	1.0	0.21	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.53	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Methylene Chloride	2.1	U	2.1	1.2	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
n-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
sec-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Toluene	1.0	U	1.0	0.24	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Trichloroethene	1.0	U	1.0	0.33	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Vinyl chloride	1.0	U	1.0	0.56	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1
Xylenes, Total	2.1	U	2.1	0.66	ug/Kg	☆	11/04/21 09:42	11/06/21 00:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 145	11/04/21 09:42	11/06/21 00:22	1
4-Bromofluorobenzene	100		70 - 139	11/04/21 09:42	11/06/21 00:22	1
Dibromofluoromethane (Surr)	106		48 - 150	11/04/21 09:42	11/06/21 00:22	1
Toluene-d8 (Surr)	93		80 - 120	11/04/21 09:42	11/06/21 00:22	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	430	U	430	16	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
2-Methylphenol	430	U	430	16	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
3 & 4 Methylphenol	430	U	430	27	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
Pentachlorophenol	340	U	340	87	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
Naphthalene	450		430	7.4	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
Acenaphthylene	21	J	430	4.3	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
Acenaphthene	290	J	430	12	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
Dibenzofuran	280	J	430	6.0	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
Fluorene	230	J	430	5.8	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
Hexachlorobenzene	43	U	43	20	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1
Phenanthrene	3500		430	7.5	ug/Kg	☆	11/03/21 22:49	11/04/21 18:31	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 117_PE-19-SW

Lab Sample ID: 460-246437-4

Date Collected: 11/02/21 08:45

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 77.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	460		430	13	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Fluoranthene	3400		430	15	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Pyrene	2700		430	11	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Benzo[a]anthracene	1300		43	15	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Chrysene	1500		430	7.2	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Benzo[b]fluoranthene	1700		43	11	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Benzo[k]fluoranthene	630		43	8.4	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Benzo[a]pyrene	1200		43	11	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Indeno[1,2,3-cd]pyrene	690		43	17	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Dibenz(a,h)anthracene	190		43	18	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
Benzo[g,h,i]perylene	560		430	13	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1
1,4-Dioxane	43	U *	43	37	ug/Kg	✱	11/03/21 22:49	11/04/21 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	77		11 - 104	11/03/21 22:49	11/04/21 18:31	1
Phenol-d5 (Surr)	81		15 - 100	11/03/21 22:49	11/04/21 18:31	1
Terphenyl-d14 (Surr)	80		12 - 126	11/03/21 22:49	11/04/21 18:31	1
2,4,6-Tribromophenol (Surr)	82		10 - 123	11/03/21 22:49	11/04/21 18:31	1
2-Fluorophenol (Surr)	81		10 - 105	11/03/21 22:49	11/04/21 18:31	1
2-Fluorobiphenyl	82		14 - 103	11/03/21 22:49	11/04/21 18:31	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	4.0	J	8.6	1.5	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
4,4'-DDE	8.6	U	8.6	1.0	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
4,4'-DDT	25		8.6	1.6	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Aldrin	8.6	U	8.6	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
alpha-BHC	2.6	U	2.6	0.88	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
beta-BHC	2.6	U	2.6	0.97	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Chlordane (technical)	86	U	86	21	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
delta-BHC	2.6	U	2.6	0.53	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Dieldrin	2.6	U	2.6	1.1	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Endosulfan I	8.6	U	8.6	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Endosulfan II	8.6	U	8.6	2.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Endosulfan sulfate	8.6	U	8.6	1.1	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Endrin	8.6	U	8.6	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Endrin aldehyde	8.6	U	8.6	2.0	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Endrin ketone	8.6	U	8.6	1.7	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
gamma-BHC (Lindane)	2.6	U	2.6	0.80	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Heptachlor	8.6	U	8.6	1.0	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Heptachlor epoxide	8.6	U	8.6	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Methoxychlor	8.6	U	8.6	2.0	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
Toxaphene	86	U	86	31	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1
cis-Chlordane	8.6	U	8.6	1.4	ug/Kg	✱	11/03/21 18:24	11/04/21 09:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		10 - 150	11/03/21 18:24	11/04/21 09:24	1
DCB Decachlorobiphenyl	100		10 - 150	11/03/21 18:24	11/04/21 09:24	1
Tetrachloro-m-xylene	83		10 - 133	11/03/21 18:24	11/04/21 09:24	1
Tetrachloro-m-xylene	82		10 - 133	11/03/21 18:24	11/04/21 09:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 117_PE-19-SW

Lab Sample ID: 460-246437-4

Date Collected: 11/02/21 08:45

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 77.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Aroclor 1221	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Aroclor 1232	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Aroclor 1242	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Aroclor 1248	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Aroclor 1254	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Aroclor 1260	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Aroclor-1262	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Aroclor 1268	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1
Polychlorinated biphenyls, Total	86	U	86	23	ug/Kg	✱	11/03/21 18:08	11/04/21 13:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		37 - 150	11/03/21 18:08	11/04/21 13:02	1
DCB Decachlorobiphenyl	98		37 - 150	11/03/21 18:08	11/04/21 13:02	1
Tetrachloro-m-xylene	88		54 - 150	11/03/21 18:08	11/04/21 13:02	1
Tetrachloro-m-xylene	85		54 - 150	11/03/21 18:08	11/04/21 13:02	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	43	U	43	4.5	ug/Kg	✱	11/03/21 23:57	11/04/21 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	67		65 - 150	11/03/21 23:57	11/04/21 16:30	1
2,4-Dichlorophenylacetic acid	109		65 - 150	11/03/21 23:57	11/04/21 16:30	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluoroheptanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorooctanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorononanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorodecanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorotridecanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorotetradecanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorobutanesulfonic acid	2.58	U	2.58	0.52	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorohexanesulfonic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorooctanesulfonic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
NEtFOSAA	2.58	U	2.58	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
NMeFOSAA	2.58	U	2.58	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluoroheptanesulfonic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorodecanesulfonic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorooctanesulfonamide	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorobutanoic acid	2.58	U	2.58	1.03	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluoroundecanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluorododecanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
6:2 Fluorotelomer sulfonic acid	2.58	U	2.58	0.77	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
8:2 Fluorotelomer sulfonic acid	3.87	U	3.87	0.77	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1
Perfluoropentanoic acid	0.77	U	0.77	0.26	ug/Kg	✱	11/04/21 18:39	11/06/21 17:45	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	142		10 - 178	11/04/21 18:39	11/06/21 17:45	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 117_PE-19-SW

Lab Sample ID: 460-246437-4

Date Collected: 11/02/21 08:45

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 77.6

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	122		10 - 182	11/04/21 18:39	11/06/21 17:45	1
13C5 PFHxA	114		11 - 138	11/04/21 18:39	11/06/21 17:45	1
13C4 PFHpA	117		15 - 139	11/04/21 18:39	11/06/21 17:45	1
13C8 PFOA	116		21 - 133	11/04/21 18:39	11/06/21 17:45	1
13C9 PFNA	123		15 - 145	11/04/21 18:39	11/06/21 17:45	1
13C6 PFDA	116		21 - 134	11/04/21 18:39	11/06/21 17:45	1
13C7 PFUnA	115		15 - 138	11/04/21 18:39	11/06/21 17:45	1
13C2-PFDoDA	118		28 - 126	11/04/21 18:39	11/06/21 17:45	1
13C2 PFTeDA	110		10 - 138	11/04/21 18:39	11/06/21 17:45	1
13C3 PFBS	130		23 - 130	11/04/21 18:39	11/06/21 17:45	1
13C3 PFHxS	130		24 - 136	11/04/21 18:39	11/06/21 17:45	1
13C8 PFOS	118		31 - 130	11/04/21 18:39	11/06/21 17:45	1
d3-NMeFOSAA	86		10 - 172	11/04/21 18:39	11/06/21 17:45	1
d5-NEtFOSAA	115		10 - 176	11/04/21 18:39	11/06/21 17:45	1
13C8 FOSA	115		25 - 135	11/04/21 18:39	11/06/21 17:45	1
13C4 PFBA	116		12 - 137	11/04/21 18:39	11/06/21 17:45	1
13C5 PFPeA	124		12 - 135	11/04/21 18:39	11/06/21 17:45	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.34	J	1.2	0.11	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Arsenic	1.9		1.2	0.13	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Barium	42.5		2.4	0.18	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Beryllium	0.38	J	0.49	0.069	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Cadmium	1.2	U	1.2	0.14	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Chromium	10.6	B	2.4	0.32	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Copper	13.2		2.4	0.45	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Manganese	133		4.9	0.49	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Nickel	9.6		2.4	0.57	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Lead	41.1		0.73	0.24	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Selenium	0.16	J	1.5	0.16	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1
Zinc	45.5		9.7	3.7	mg/Kg	✧	11/08/21 04:22	11/09/21 01:09	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.32		0.021	0.0098	mg/Kg	✧	11/08/21 02:40	11/08/21 07:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.6		2.0	2.0	mg/Kg			11/07/21 20:42	1
Cr (VI)	2.6	U	2.6	1.1	mg/Kg	✧	11/06/21 10:53	11/07/21 12:31	1
Cyanide, Total	0.19	J	0.24	0.13	mg/Kg	✧	11/06/21 08:58	11/07/21 13:25	1
Percent Moisture	22.4		1.0	1.0	%			11/05/21 02:12	1
Percent Solids	77.6		1.0	1.0	%			11/05/21 02:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 118_PE-19-NW

Lab Sample ID: 460-246437-5

Date Collected: 11/02/21 08:55

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 81.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.91	U	0.91	0.21	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,1-Dichloroethane	0.91	U	0.91	0.19	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,1-Dichloroethene	0.91	U	0.91	0.20	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,2,4-Trimethylbenzene	0.91	U	0.91	0.22	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,2-Dichlorobenzene	0.91	U	0.91	0.33	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,2-Dichloroethane	0.91	U	0.91	0.27	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,3,5-Trimethylbenzene	0.91	U	0.91	0.28	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,3-Dichlorobenzene	0.91	U	0.91	0.33	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,4-Dichlorobenzene	0.91	U	0.91	0.20	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
1,4-Dioxane	18	U	18	8.3	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
2-Butanone (MEK)	4.5	U	4.5	0.33	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Acetone	5.4	U	5.4	5.2	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Benzene	0.91	U	0.91	0.23	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Carbon tetrachloride	0.91	U	0.91	0.35	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Chlorobenzene	0.91	U	0.91	0.16	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Chloroform	0.91	U	0.91	0.88	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
cis-1,2-Dichloroethene	0.91	U	0.91	0.32	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Ethylbenzene	0.91	U	0.91	0.18	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Methyl tert-butyl ether	0.91	U	0.91	0.46	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
n-Butylbenzene	0.91	U	0.91	0.27	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
N-Propylbenzene	0.91	U	0.91	0.16	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
sec-Butylbenzene	0.91	U	0.91	0.26	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
tert-Butylbenzene	0.91	U	0.91	0.25	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Tetrachloroethene	0.91	U	0.91	0.28	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Toluene	0.91	U	0.91	0.21	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
trans-1,2-Dichloroethene	0.91	U	0.91	0.22	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Trichloroethene	0.91	U	0.91	0.29	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Vinyl chloride	0.91	U	0.91	0.50	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1
Xylenes, Total	1.8	U	1.8	0.58	ug/Kg	✱	11/04/21 09:43	11/06/21 00:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		77 - 145	11/04/21 09:43	11/06/21 00:44	1
4-Bromofluorobenzene	99		70 - 139	11/04/21 09:43	11/06/21 00:44	1
Dibromofluoromethane (Surr)	108		48 - 150	11/04/21 09:43	11/06/21 00:44	1
Toluene-d8 (Surr)	92		80 - 120	11/04/21 09:43	11/06/21 00:44	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Pentachlorophenol	330	U	330	83	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Naphthalene	63	J	400	7.0	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Acenaphthylene	58	J	400	4.1	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Acenaphthene	48	J	400	12	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Dibenzofuran	33	J	400	5.7	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Fluorene	58	J	400	5.5	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Phenanthrene	860		400	7.1	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 118_PE-19-NW

Lab Sample ID: 460-246437-5

Date Collected: 11/02/21 08:55

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 81.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	200	J	400	12	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Fluoranthene	1500		400	14	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Pyrene	1400		400	10	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Benzo[a]anthracene	750		40	14	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Chrysene	640		400	6.9	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Benzo[b]fluoranthene	800		40	10	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Benzo[k]fluoranthene	320		40	8.0	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Benzo[a]pyrene	630		40	11	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Indeno[1,2,3-cd]pyrene	430		40	16	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Dibenz(a,h)anthracene	56		40	18	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
Benzo[g,h,i]perylene	280	J	400	12	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1
1,4-Dioxane	40	U *	40	35	ug/Kg	✱	11/03/21 22:49	11/04/21 15:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	74		11 - 104	11/03/21 22:49	11/04/21 15:24	1
Phenol-d5 (Surr)	74		15 - 100	11/03/21 22:49	11/04/21 15:24	1
Terphenyl-d14 (Surr)	82		12 - 126	11/03/21 22:49	11/04/21 15:24	1
2,4,6-Tribromophenol (Surr)	87		10 - 123	11/03/21 22:49	11/04/21 15:24	1
2-Fluorophenol (Surr)	76		10 - 105	11/03/21 22:49	11/04/21 15:24	1
2-Fluorobiphenyl	72		14 - 103	11/03/21 22:49	11/04/21 15:24	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	17		8.2	1.4	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
4,4'-DDE	8.2	U	8.2	0.97	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
4,4'-DDT	11		8.2	1.5	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Aldrin	8.2	U	8.2	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
alpha-BHC	2.5	U	2.5	0.83	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
beta-BHC	2.5	U	2.5	0.92	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Chlordane (technical)	82	U	82	20	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
delta-BHC	2.5	U	2.5	0.50	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Dieldrin	2.5	U	2.5	1.1	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Endosulfan I	8.2	U	8.2	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Endosulfan II	8.2	U	8.2	2.1	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Endosulfan sulfate	8.2	U	8.2	1.0	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Endrin	8.2	U	8.2	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Endrin aldehyde	8.2	U	8.2	1.9	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Endrin ketone	8.2	U	8.2	1.6	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
gamma-BHC (Lindane)	2.5	U	2.5	0.76	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Heptachlor	8.2	U	8.2	0.97	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Heptachlor epoxide	8.2	U	8.2	1.2	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Methoxychlor	8.2	U	8.2	1.9	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
Toxaphene	82	U	82	30	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1
cis-Chlordane	8.2	U	8.2	1.3	ug/Kg	✱	11/03/21 18:24	11/04/21 09:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 150	11/03/21 18:24	11/04/21 09:38	1
DCB Decachlorobiphenyl	87		10 - 150	11/03/21 18:24	11/04/21 09:38	1
Tetrachloro-m-xylene	74		10 - 133	11/03/21 18:24	11/04/21 09:38	1
Tetrachloro-m-xylene	76		10 - 133	11/03/21 18:24	11/04/21 09:38	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 118_PE-19-NW

Lab Sample ID: 460-246437-5

Date Collected: 11/02/21 08:55

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 81.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Aroclor 1221	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Aroclor 1232	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Aroclor 1242	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Aroclor 1248	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Aroclor 1254	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Aroclor 1260	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Aroclor-1262	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Aroclor 1268	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1
Polychlorinated biphenyls, Total	82	U	82	22	ug/Kg	✱	11/03/21 18:08	11/04/21 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	111		37 - 150	11/03/21 18:08	11/04/21 13:20	1
DCB Decachlorobiphenyl	111		37 - 150	11/03/21 18:08	11/04/21 13:20	1
Tetrachloro-m-xylene	101		54 - 150	11/03/21 18:08	11/04/21 13:20	1
Tetrachloro-m-xylene	97		54 - 150	11/03/21 18:08	11/04/21 13:20	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	41	U	41	4.3	ug/Kg	✱	11/03/21 23:57	11/04/21 16:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	79		65 - 150	11/03/21 23:57	11/04/21 16:44	1
2,4-Dichlorophenylacetic acid	139		65 - 150	11/03/21 23:57	11/04/21 16:44	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluoroheptanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorooctanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorononanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorodecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorotridecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorotetradecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorobutanesulfonic acid	2.40	U	2.40	0.48	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorohexanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorooctanesulfonic acid	0.99		0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
NEtFOSAA	2.40	U	2.40	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
NMeFOSAA	2.40	U	2.40	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluoroheptanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorodecanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorooctanesulfonamide	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorobutanoic acid	2.40	U	2.40	0.96	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluoroundecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluorododecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
6:2 Fluorotelomer sulfonic acid	2.40	U	2.40	0.72	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
8:2 Fluorotelomer sulfonic acid	3.61	U	3.61	0.72	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1
Perfluoropentanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	11/04/21 18:39	11/06/21 17:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	170		10 - 178	11/04/21 18:39	11/06/21 17:56	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 118_PE-19-NW

Lab Sample ID: 460-246437-5

Date Collected: 11/02/21 08:55

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 81.6

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	129		10 - 182	11/04/21 18:39	11/06/21 17:56	1
13C5 PFHxA	122		11 - 138	11/04/21 18:39	11/06/21 17:56	1
13C4 PFHpA	125		15 - 139	11/04/21 18:39	11/06/21 17:56	1
13C8 PFOA	126		21 - 133	11/04/21 18:39	11/06/21 17:56	1
13C9 PFNA	120		15 - 145	11/04/21 18:39	11/06/21 17:56	1
13C6 PFDA	134		21 - 134	11/04/21 18:39	11/06/21 17:56	1
13C7 PFUnA	128		15 - 138	11/04/21 18:39	11/06/21 17:56	1
13C2-PFDoDA	125		28 - 126	11/04/21 18:39	11/06/21 17:56	1
13C2 PFTeDA	123		10 - 138	11/04/21 18:39	11/06/21 17:56	1
13C3 PFBS	139 *		23 - 130	11/04/21 18:39	11/06/21 17:56	1
13C3 PFHxS	136		24 - 136	11/04/21 18:39	11/06/21 17:56	1
13C8 PFOS	124		31 - 130	11/04/21 18:39	11/06/21 17:56	1
d3-NMeFOSAA	114		10 - 172	11/04/21 18:39	11/06/21 17:56	1
d5-NEtFOSAA	148		10 - 176	11/04/21 18:39	11/06/21 17:56	1
13C8 FOSA	124		25 - 135	11/04/21 18:39	11/06/21 17:56	1
13C4 PFBA	126		12 - 137	11/04/21 18:39	11/06/21 17:56	1
13C5 PFPeA	139 *		12 - 135	11/04/21 18:39	11/06/21 17:56	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.43	J	1.1	0.10	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Arsenic	3.7		1.1	0.12	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Barium	162		2.3	0.17	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Beryllium	0.37	J	0.46	0.065	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Cadmium	0.37	J	1.1	0.13	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Chromium	13.3	B	2.3	0.31	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Copper	41.1		2.3	0.42	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Manganese	258		4.6	0.46	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Nickel	13.8		2.3	0.54	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Lead	806		0.69	0.23	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Selenium	0.46	J	1.4	0.15	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1
Zinc	179		9.2	3.5	mg/Kg	✱	11/08/21 04:22	11/09/21 01:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.6		0.098	0.046	mg/Kg	✱	11/08/21 02:40	11/08/21 09:34	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	13.3		2.0	2.0	mg/Kg			11/07/21 20:42	1
Cr (VI)	2.5	U	2.5	1.0	mg/Kg	✱	11/06/21 10:53	11/07/21 12:31	1
Cyanide, Total	0.22	J	0.25	0.14	mg/Kg	✱	11/06/21 08:58	11/07/21 13:31	1
Percent Moisture	18.4		1.0	1.0	%			11/05/21 02:12	1
Percent Solids	81.6		1.0	1.0	%			11/05/21 02:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 119_TB-8

Lab Sample ID: 460-246437-6

Date Collected: 11/02/21 00:00

Matrix: Water

Date Received: 11/02/21 17:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/04/21 14:40	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/04/21 14:40	1
Acetone	5.0	U	5.0	4.4	ug/L			11/04/21 14:40	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/04/21 14:40	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/04/21 14:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/04/21 14:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/04/21 14:40	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/04/21 14:40	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/04/21 14:40	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/04/21 14:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/04/21 14:40	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/04/21 14:40	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/04/21 14:40	1
Benzene	1.0	U	1.0	0.20	ug/L			11/04/21 14:40	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/04/21 14:40	1
Toluene	1.0	U	1.0	0.38	ug/L			11/04/21 14:40	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/04/21 14:40	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/04/21 14:40	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/04/21 14:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			11/04/21 14:40	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/04/21 14:40	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/04/21 14:40	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			11/04/21 14:40	1
1,4-Dioxane	50	U	50	28	ug/L			11/04/21 14:40	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			11/04/21 14:40	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			11/04/21 14:40	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			11/04/21 14:40	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			11/04/21 14:40	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			11/04/21 14:40	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			11/04/21 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		75 - 123		11/04/21 14:40	1
Toluene-d8 (Surr)	97		80 - 120		11/04/21 14:40	1
4-Bromofluorobenzene	98		76 - 120		11/04/21 14:40	1
Dibromofluoromethane (Surr)	92		77 - 124		11/04/21 14:40	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-246437-1	114_PE-19	109	97	106	94
460-246437-2	115_PE-19-NE	112	97	107	94
460-246437-3	116_PE-19-SE	104	99	104	94
460-246437-4	117_PE-19-SW	109	100	106	93
460-246437-5	118_PE-19-NW	114	99	108	92
LCS 460-811625/3	Lab Control Sample	91	93	90	90
LCSD 460-811625/4	Lab Control Sample Dup	97	98	96	98
MB 460-811625/8	Method Blank	105	101	102	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-246437-6	119_TB-8	92	97	98	92
LCS 460-811281/7	Lab Control Sample	91	94	98	89
LCSD 460-811281/8	Lab Control Sample Dup	92	95	96	87
MB 460-811281/11	Method Blank	91	98	100	90

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-246437-1	114_PE-19	82	79	85	86	81	76
460-246437-1 MS	114_PE-19	81	82	82	88	80	78
460-246437-1 MSD	114_PE-19	79	80	82	88	78	78
460-246437-2	115_PE-19-NE	76	75	83	88	77	75
460-246437-3	116_PE-19-SE	79	78	84	91	79	76
460-246437-4	117_PE-19-SW	77	81	80	82	81	82
460-246437-5	118_PE-19-NW	74	74	82	87	76	72
LCS 460-811216/2-A	Lab Control Sample	85	85	87	90	82	81
LCSD 460-811216/3-A	Lab Control Sample Dup	80	79	81	84	77	77
MB 460-811216/1-A	Method Blank	85	83	87	86	83	79

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-246428-E-7-C MS	Matrix Spike	66	61	57	57
460-246428-E-7-D MSD	Matrix Spike Duplicate	71	69	67	65
460-246437-1	114_PE-19	98	97	91	47
460-246437-2	115_PE-19-NE	90	87	86	84
460-246437-3	116_PE-19-SE	98	93	90	88
460-246437-4	117_PE-19-SW	100	88	82	83
460-246437-5	118_PE-19-NW	87	79	76	74
LCS 460-811190/26-A	Lab Control Sample	76	67	60	61
LCS 460-811190/2-A	Lab Control Sample	115	102	103	92
LCSD 460-811190/27-A	Lab Control Sample Dup	82	73	72	66
LCSD 460-811190/3-A	Lab Control Sample Dup	94	82	86	80
MB 460-811190/1-A	Method Blank	67	56	59	58

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-246428-E-7-A MS	Matrix Spike	60	59	52 *	53 *
460-246428-E-7-B MSD	Matrix Spike Duplicate	51	51	45 *	46 *
460-246437-1	114_PE-19	96	97	85	88
460-246437-2	115_PE-19-NE	99	102	89	93
460-246437-3	116_PE-19-SE	88	89	77	80
460-246437-4	117_PE-19-SW	98	97	85	88
460-246437-5	118_PE-19-NW	111	111	97	101
LCS 460-811182/2-A	Lab Control Sample	99	95	88	89
LCSD 460-811182/3-A	Lab Control Sample Dup	80	76	71	72
MB 460-811182/1-A	Method Blank	83	82	77	80

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1 (65-150)	DCPAA2 (65-150)
460-246437-1	114_PE-19	130	81
460-246437-2	115_PE-19-NE	154 *	83
460-246437-3	116_PE-19-SE	159 *	105

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8151A - Herbicides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-246437-4	117_PE-19-SW	109	67
460-246437-5	118_PE-19-NW	139	79
LCS 460-811220/2-A	Lab Control Sample	125	113
LCSD 460-811220/3-A	Lab Control Sample Dup	118	105
MB 460-811220/1-A	Method Blank	116	103

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-246437-1	114_PE-19	143	128	123	125	121	121	124	122
460-246437-2	115_PE-19-NE	146	104	104	105	104	106	106	100
460-246437-3	116_PE-19-SE	135	115	109	116	113	119	112	118
460-246437-4	117_PE-19-SW	142	122	114	117	116	123	116	115
460-246437-5	118_PE-19-NW	170	129	122	125	126	120	134	128
LCS 410-191052/2-B	Lab Control Sample	143	129	132	134	129	135	133	131
MB 410-191052/1-B	Method Blank	155	144	147 *	146 *	144 *	148 *	146 *	145 *

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-246437-1	114_PE-19	124	122	138 *	136	128	75	101	117
460-246437-2	115_PE-19-NE	101	99	116	115	104	84	104	103
460-246437-3	116_PE-19-SE	111	110	126	122	119	107	136	116
460-246437-4	117_PE-19-SW	118	110	130	130	118	86	115	115
460-246437-5	118_PE-19-NW	125	123	139 *	136	124	114	148	124
LCS 410-191052/2-B	Lab Control Sample	136 *	133	145 *	141 *	133 *	112	129	141 *
MB 410-191052/1-B	Method Blank	144 *	143 *	155 *	154 *	150 *	113	140	146 *

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)
460-246437-1	114_PE-19	124	134
460-246437-2	115_PE-19-NE	105	110
460-246437-3	116_PE-19-SE	114	122
460-246437-4	117_PE-19-SW	116	124
460-246437-5	118_PE-19-NW	126	139 *
LCS 410-191052/2-B	Lab Control Sample	134	141 *
MB 410-191052/1-B	Method Blank	148 *	158 *

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-811281/11

Matrix: Water

Analysis Batch: 811281

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/04/21 11:14	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/04/21 11:14	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/04/21 11:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/04/21 11:14	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/04/21 11:14	1
Acetone	5.0	U	5.0	4.4	ug/L			11/04/21 11:14	1
Benzene	1.0	U	1.0	0.20	ug/L			11/04/21 11:14	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/04/21 11:14	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/04/21 11:14	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/04/21 11:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/04/21 11:14	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/04/21 11:14	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/04/21 11:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			11/04/21 11:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/04/21 11:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/04/21 11:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			11/04/21 11:14	1
1,4-Dioxane	50	U	50	28	ug/L			11/04/21 11:14	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			11/04/21 11:14	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/04/21 11:14	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			11/04/21 11:14	1
Toluene	1.0	U	1.0	0.38	ug/L			11/04/21 11:14	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			11/04/21 11:14	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			11/04/21 11:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/04/21 11:14	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			11/04/21 11:14	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/04/21 11:14	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			11/04/21 11:14	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/04/21 11:14	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/04/21 11:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 123		11/04/21 11:14	1
4-Bromofluorobenzene	100		76 - 120		11/04/21 11:14	1
Toluene-d8 (Surr)	98		80 - 120		11/04/21 11:14	1
Dibromofluoromethane (Surr)	90		77 - 124		11/04/21 11:14	1

Lab Sample ID: LCS 460-811281/7

Matrix: Water

Analysis Batch: 811281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	19.1		ug/L		96	68 - 133
1,1-Dichloroethane	20.0	17.8		ug/L		89	73 - 130
1,2-Dichloroethane	20.0	17.9		ug/L		89	75 - 121
1,1,1-Trichloroethane	20.0	17.9		ug/L		89	68 - 128
2-Butanone (MEK)	100	98.0		ug/L		98	69 - 128
Acetone	100	99.1		ug/L		99	61 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-811281/7

Matrix: Water

Analysis Batch: 811281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	18.8		ug/L		94	78 - 126
Carbon tetrachloride	20.0	17.9		ug/L		89	56 - 131
Chloroform	20.0	18.5		ug/L		92	78 - 125
Chlorobenzene	20.0	20.1		ug/L		101	80 - 119
cis-1,2-Dichloroethene	20.0	18.2		ug/L		91	78 - 121
Ethylbenzene	20.0	19.3		ug/L		96	78 - 120
Methylene Chloride	20.0	17.6		ug/L		88	74 - 127
m-Xylene & p-Xylene	20.0	19.2		ug/L		96	78 - 123
Methyl tert-butyl ether	20.0	16.8		ug/L		84	65 - 131
1,3-Dichlorobenzene	20.0	19.4		ug/L		97	80 - 121
1,4-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 118
o-Xylene	20.0	18.8		ug/L		94	78 - 122
1,2-Dichlorobenzene	20.0	19.2		ug/L		96	79 - 122
1,4-Dioxane	400	502		ug/L		126	70 - 142
1,2,4-Trimethylbenzene	20.0	18.4		ug/L		92	75 - 125
Tetrachloroethene	20.0	20.8		ug/L		104	70 - 127
1,3,5-Trimethylbenzene	20.0	18.4		ug/L		92	75 - 125
Toluene	20.0	19.2		ug/L		96	78 - 119
N-Propylbenzene	20.0	19.4		ug/L		97	74 - 129
sec-Butylbenzene	20.0	18.8		ug/L		94	73 - 129
trans-1,2-Dichloroethene	20.0	17.4		ug/L		87	74 - 126
tert-Butylbenzene	20.0	19.6		ug/L		98	72 - 124
Trichloroethene	20.0	18.8		ug/L		94	71 - 121
n-Butylbenzene	20.0	18.6		ug/L		93	69 - 135
Vinyl chloride	20.0	16.4		ug/L		82	61 - 144
Xylenes, Total	40.0	38.0		ug/L		95	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		75 - 123
4-Bromofluorobenzene	98		76 - 120
Toluene-d8 (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	89		77 - 124

Lab Sample ID: LCSD 460-811281/8

Matrix: Water

Analysis Batch: 811281

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	18.5		ug/L		92	68 - 133	3	30
1,1-Dichloroethane	20.0	17.5		ug/L		87	73 - 130	2	30
1,2-Dichloroethane	20.0	18.2		ug/L		91	75 - 121	2	30
1,1,1-Trichloroethane	20.0	17.1		ug/L		86	68 - 128	4	30
2-Butanone (MEK)	100	97.8		ug/L		98	69 - 128	0	30
Acetone	100	81.8		ug/L		82	61 - 134	19	30
Benzene	20.0	18.7		ug/L		94	78 - 126	1	30
Carbon tetrachloride	20.0	17.4		ug/L		87	56 - 131	3	30
Chloroform	20.0	18.0		ug/L		90	78 - 125	3	30
Chlorobenzene	20.0	20.0		ug/L		100	80 - 119	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-811281/8

Matrix: Water

Analysis Batch: 811281

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	18.0		ug/L		90	78 - 121	1	30
Ethylbenzene	20.0	19.1		ug/L		95	78 - 120	1	30
Methylene Chloride	20.0	17.0		ug/L		85	74 - 127	3	30
m-Xylene & p-Xylene	20.0	18.9		ug/L		95	78 - 123	2	30
Methyl tert-butyl ether	20.0	17.2		ug/L		86	65 - 131	2	30
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	80 - 121	1	30
1,4-Dichlorobenzene	20.0	19.4		ug/L		97	80 - 118	2	30
o-Xylene	20.0	18.2		ug/L		91	78 - 122	3	30
1,2-Dichlorobenzene	20.0	18.8		ug/L		94	79 - 122	2	30
1,4-Dioxane	400	478		ug/L		119	70 - 142	5	30
1,2,4-Trimethylbenzene	20.0	18.1		ug/L		90	75 - 125	2	30
Tetrachloroethene	20.0	19.8		ug/L		99	70 - 127	5	30
1,3,5-Trimethylbenzene	20.0	18.4		ug/L		92	75 - 125	0	30
Toluene	20.0	18.8		ug/L		94	78 - 119	2	30
N-Propylbenzene	20.0	18.8		ug/L		94	74 - 129	3	30
sec-Butylbenzene	20.0	18.5		ug/L		93	73 - 129	2	30
trans-1,2-Dichloroethene	20.0	17.3		ug/L		86	74 - 126	1	30
tert-Butylbenzene	20.0	18.8		ug/L		94	72 - 124	5	30
Trichloroethene	20.0	18.6		ug/L		93	71 - 121	1	30
n-Butylbenzene	20.0	18.2		ug/L		91	69 - 135	2	30
Vinyl chloride	20.0	16.3		ug/L		82	61 - 144	1	30
Xylenes, Total	40.0	37.1		ug/L		93	78 - 122	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		75 - 123
4-Bromofluorobenzene	96		76 - 120
Toluene-d8 (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	87		77 - 124

Lab Sample ID: MB 460-811625/8

Matrix: Solid

Analysis Batch: 811625

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			11/05/21 17:09	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			11/05/21 17:09	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			11/05/21 17:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			11/05/21 17:09	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			11/05/21 17:09	1
Acetone	6.0	U	6.0	5.7	ug/Kg			11/05/21 17:09	1
Benzene	1.0	U	1.0	0.26	ug/Kg			11/05/21 17:09	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			11/05/21 17:09	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			11/05/21 17:09	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			11/05/21 17:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			11/05/21 17:09	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			11/05/21 17:09	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			11/05/21 17:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			11/05/21 17:09	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-811625/8

Matrix: Solid

Analysis Batch: 811625

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			11/05/21 17:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			11/05/21 17:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			11/05/21 17:09	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			11/05/21 17:09	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			11/05/21 17:09	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			11/05/21 17:09	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			11/05/21 17:09	1
Toluene	1.0	U	1.0	0.23	ug/Kg			11/05/21 17:09	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			11/05/21 17:09	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/05/21 17:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			11/05/21 17:09	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			11/05/21 17:09	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			11/05/21 17:09	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/05/21 17:09	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			11/05/21 17:09	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			11/05/21 17:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 145		11/05/21 17:09	1
4-Bromofluorobenzene	101		70 - 139		11/05/21 17:09	1
Toluene-d8 (Surr)	94		80 - 120		11/05/21 17:09	1
Dibromofluoromethane (Surr)	102		48 - 150		11/05/21 17:09	1

Lab Sample ID: LCS 460-811625/3

Matrix: Solid

Analysis Batch: 811625

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	17.2		ug/Kg		86	77 - 132
1,1-Dichloroethane	20.0	18.2		ug/Kg		91	76 - 129
1,2-Dichloroethane	20.0	17.6		ug/Kg		88	70 - 132
1,1,1-Trichloroethane	20.0	18.2		ug/Kg		91	78 - 132
2-Butanone (MEK)	100	84.9		ug/Kg		85	75 - 120
Acetone	100	84.8		ug/Kg		85	63 - 131
Benzene	20.0	18.3		ug/Kg		91	80 - 123
Carbon tetrachloride	20.0	18.1		ug/Kg		91	72 - 136
Chloroform	20.0	18.2		ug/Kg		91	79 - 126
Chlorobenzene	20.0	18.5		ug/Kg		93	80 - 120
cis-1,2-Dichloroethene	20.0	18.0		ug/Kg		90	80 - 123
Ethylbenzene	20.0	18.2		ug/Kg		91	80 - 120
Methylene Chloride	20.0	17.9		ug/Kg		89	76 - 127
m-Xylene & p-Xylene	20.0	19.3		ug/Kg		96	80 - 120
Methyl tert-butyl ether	20.0	18.4		ug/Kg		92	80 - 125
1,3-Dichlorobenzene	20.0	19.6		ug/Kg		98	80 - 120
1,4-Dichlorobenzene	20.0	19.1		ug/Kg		95	80 - 120
o-Xylene	20.0	18.6		ug/Kg		93	80 - 120
1,2-Dichlorobenzene	20.0	19.2		ug/Kg		96	80 - 120
1,4-Dioxane	400	476		ug/Kg		119	73 - 136

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-811625/3

Matrix: Solid

Analysis Batch: 811625

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	20.1		ug/Kg		100	79 - 120
Tetrachloroethene	20.0	18.1		ug/Kg		90	78 - 123
1,3,5-Trimethylbenzene	20.0	19.7		ug/Kg		99	79 - 120
Toluene	20.0	18.7		ug/Kg		93	80 - 120
N-Propylbenzene	20.0	20.2		ug/Kg		101	78 - 120
sec-Butylbenzene	20.0	19.7		ug/Kg		99	78 - 120
trans-1,2-Dichloroethene	20.0	18.5		ug/Kg		92	78 - 128
tert-Butylbenzene	20.0	19.8		ug/Kg		99	76 - 120
Trichloroethene	20.0	18.1		ug/Kg		91	79 - 120
n-Butylbenzene	20.0	20.4		ug/Kg		102	77 - 123
Vinyl chloride	20.0	19.7		ug/Kg		99	56 - 147
Xylenes, Total	40.0	37.9		ug/Kg		95	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		77 - 145
4-Bromofluorobenzene	93		70 - 139
Toluene-d8 (Surr)	90		80 - 120
Dibromofluoromethane (Surr)	90		48 - 150

Lab Sample ID: LCSD 460-811625/4

Matrix: Solid

Analysis Batch: 811625

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	17.3		ug/Kg		86	77 - 132	0	30
1,1-Dichloroethane	20.0	18.7		ug/Kg		93	76 - 129	2	30
1,2-Dichloroethane	20.0	18.0		ug/Kg		90	70 - 132	3	30
1,1,1-Trichloroethane	20.0	17.7		ug/Kg		89	78 - 132	2	30
2-Butanone (MEK)	100	95.9		ug/Kg		96	75 - 120	12	30
Acetone	100	94.1		ug/Kg		94	63 - 131	10	30
Benzene	20.0	18.7		ug/Kg		93	80 - 123	2	30
Carbon tetrachloride	20.0	17.7		ug/Kg		89	72 - 136	2	30
Chloroform	20.0	18.9		ug/Kg		95	79 - 126	4	30
Chlorobenzene	20.0	19.6		ug/Kg		98	80 - 120	6	30
cis-1,2-Dichloroethene	20.0	18.7		ug/Kg		94	80 - 123	4	30
Ethylbenzene	20.0	19.5		ug/Kg		98	80 - 120	7	30
Methylene Chloride	20.0	18.4		ug/Kg		92	76 - 127	3	30
m-Xylene & p-Xylene	20.0	20.3		ug/Kg		101	80 - 120	5	30
Methyl tert-butyl ether	20.0	19.3		ug/Kg		97	80 - 125	5	30
1,3-Dichlorobenzene	20.0	20.7		ug/Kg		104	80 - 120	5	30
1,4-Dichlorobenzene	20.0	20.4		ug/Kg		102	80 - 120	7	30
o-Xylene	20.0	20.7		ug/Kg		103	80 - 120	11	30
1,2-Dichlorobenzene	20.0	20.7		ug/Kg		104	80 - 120	8	30
1,4-Dioxane	400	540		ug/Kg		135	73 - 136	13	30
1,2,4-Trimethylbenzene	20.0	21.4		ug/Kg		107	79 - 120	6	30
Tetrachloroethene	20.0	18.1		ug/Kg		91	78 - 123	0	30
1,3,5-Trimethylbenzene	20.0	20.9		ug/Kg		104	79 - 120	5	30
Toluene	20.0	18.9		ug/Kg		94	80 - 120	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-811625/4

Matrix: Solid

Analysis Batch: 811625

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Propylbenzene	20.0	21.2		ug/Kg		106	78 - 120	5	30
sec-Butylbenzene	20.0	20.1		ug/Kg		101	78 - 120	2	30
trans-1,2-Dichloroethene	20.0	18.1		ug/Kg		91	78 - 128	2	30
tert-Butylbenzene	20.0	19.9		ug/Kg		99	76 - 120	0	30
Trichloroethene	20.0	17.9		ug/Kg		89	79 - 120	1	30
n-Butylbenzene	20.0	21.2		ug/Kg		106	77 - 123	4	30
Vinyl chloride	20.0	19.0		ug/Kg		95	56 - 147	4	30
Xylenes, Total	40.0	40.9		ug/Kg		102	80 - 120	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		77 - 145
4-Bromofluorobenzene	98		70 - 139
Toluene-d8 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	96		48 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-811216/1-A

Matrix: Solid

Analysis Batch: 811275

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
2-Methylphenol	330	U	330	12	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Pentachlorophenol	270	U	270	68	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Naphthalene	330	U	330	5.7	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Acenaphthylene	330	U	330	3.3	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Acenaphthene	330	U	330	9.4	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Dibenzofuran	330	U	330	4.6	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Fluorene	330	U	330	4.5	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Hexachlorobenzene	33	U	33	16	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Phenanthrene	330	U	330	5.8	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Anthracene	330	U	330	10	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Fluoranthene	330	U	330	12	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Pyrene	330	U	330	8.2	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Chrysene	330	U	330	5.6	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		11/03/21 22:49	11/04/21 09:06	1
1,4-Dioxane	33	U	33	29	ug/Kg		11/03/21 22:49	11/04/21 09:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	85		11 - 104	11/03/21 22:49	11/04/21 09:06	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-811216/1-A

Matrix: Solid

Analysis Batch: 811275

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811216

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	83		15 - 100	11/03/21 22:49	11/04/21 09:06	1
Terphenyl-d14 (Surr)	87		12 - 126	11/03/21 22:49	11/04/21 09:06	1
2,4,6-Tribromophenol (Surr)	86		10 - 123	11/03/21 22:49	11/04/21 09:06	1
2-Fluorophenol (Surr)	83		10 - 105	11/03/21 22:49	11/04/21 09:06	1
2-Fluorobiphenyl	79		14 - 103	11/03/21 22:49	11/04/21 09:06	1

Lab Sample ID: LCS 460-811216/2-A

Matrix: Solid

Analysis Batch: 811275

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	3240		ug/Kg		97	63 - 110
2-Methylphenol	3330	3010		ug/Kg		90	63 - 108
3 & 4 Methylphenol	3330	3020		ug/Kg		91	61 - 108
Pentachlorophenol	6670	6230		ug/Kg		94	44 - 126
Naphthalene	3330	3050		ug/Kg		91	63 - 106
Acenaphthylene	3330	3050		ug/Kg		91	64 - 108
Acenaphthene	3330	2970		ug/Kg		89	53 - 110
Dibenzofuran	3330	3010		ug/Kg		90	65 - 108
Fluorene	3330	3090		ug/Kg		93	65 - 109
Hexachlorobenzene	3330	3130		ug/Kg		94	61 - 113
Phenanthrene	3330	3080		ug/Kg		92	66 - 112
Anthracene	3330	3120		ug/Kg		94	67 - 114
Fluoranthene	3330	3150		ug/Kg		95	61 - 106
Pyrene	3330	3090		ug/Kg		93	61 - 111
Benzo[a]anthracene	3330	3130		ug/Kg		94	67 - 115
Chrysene	3330	3080		ug/Kg		92	71 - 122
Benzo[b]fluoranthene	3330	3510		ug/Kg		105	70 - 125
Benzo[k]fluoranthene	3330	3220		ug/Kg		97	67 - 115
Benzo[a]pyrene	3330	3480		ug/Kg		104	73 - 123
Indeno[1,2,3-cd]pyrene	3330	3010		ug/Kg		90	62 - 121
Dibenz(a,h)anthracene	3330	3580		ug/Kg		107	66 - 119
Benzo[g,h,i]perylene	3330	3030		ug/Kg		91	61 - 113
1,4-Dioxane	3330	2970 *		ug/Kg		89	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	85		11 - 104
Phenol-d5 (Surr)	85		15 - 100
Terphenyl-d14 (Surr)	87		12 - 126
2,4,6-Tribromophenol (Surr)	90		10 - 123
2-Fluorophenol (Surr)	82		10 - 105
2-Fluorobiphenyl	81		14 - 103

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-811216/3-A

Matrix: Solid

Analysis Batch: 811275

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 811216

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	2990		ug/Kg		90	63 - 110	8	30
2-Methylphenol	3330	2840		ug/Kg		85	63 - 108	6	30
3 & 4 Methylphenol	3330	2860		ug/Kg		86	61 - 108	6	30
Pentachlorophenol	6670	5900		ug/Kg		89	44 - 126	5	30
Naphthalene	3330	2830		ug/Kg		85	63 - 106	7	30
Acenaphthylene	3330	2890		ug/Kg		87	64 - 108	5	30
Acenaphthene	3330	2800		ug/Kg		84	53 - 110	6	30
Dibenzofuran	3330	2860		ug/Kg		86	65 - 108	5	30
Fluorene	3330	2880		ug/Kg		86	65 - 109	7	30
Hexachlorobenzene	3330	2910		ug/Kg		87	61 - 113	7	30
Phenanthrene	3330	2880		ug/Kg		86	66 - 112	7	30
Anthracene	3330	2930		ug/Kg		88	67 - 114	6	30
Fluoranthene	3330	2950		ug/Kg		89	61 - 106	6	30
Pyrene	3330	2920		ug/Kg		88	61 - 111	6	30
Benzo[a]anthracene	3330	2890		ug/Kg		87	67 - 115	8	30
Chrysene	3330	2840		ug/Kg		85	71 - 122	8	30
Benzo[b]fluoranthene	3330	3330		ug/Kg		100	70 - 125	5	30
Benzo[k]fluoranthene	3330	3030		ug/Kg		91	67 - 115	6	30
Benzo[a]pyrene	3330	3280		ug/Kg		98	73 - 123	6	30
Indeno[1,2,3-cd]pyrene	3330	2840		ug/Kg		85	62 - 121	6	30
Dibenz(a,h)anthracene	3330	3450		ug/Kg		103	66 - 119	4	30
Benzo[g,h,i]perylene	3330	2900		ug/Kg		87	61 - 113	4	30
1,4-Dioxane	3330	2810	*	ug/Kg		84	31 - 81	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	80		11 - 104
Phenol-d5 (Surr)	79		15 - 100
Terphenyl-d14 (Surr)	81		12 - 126
2,4,6-Tribromophenol (Surr)	84		10 - 123
2-Fluorophenol (Surr)	77		10 - 105
2-Fluorobiphenyl	77		14 - 103

Lab Sample ID: 460-246437-1 MS

Matrix: Solid

Analysis Batch: 811275

Client Sample ID: 114_PE-19

Prep Type: Total/NA

Prep Batch: 811216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	390	U	3940	3640		ug/Kg	✱	92	63 - 110
2-Methylphenol	390	U	3940	3530		ug/Kg	✱	90	63 - 108
3 & 4 Methylphenol	390	U	3940	3470		ug/Kg	✱	88	61 - 108
Pentachlorophenol	310	U	7890	7620		ug/Kg	✱	97	44 - 126
Naphthalene	20	J	3940	3470		ug/Kg	✱	88	63 - 106
Acenaphthylene	6.1	J	3940	3500		ug/Kg	✱	89	64 - 108
Acenaphthene	33	J	3940	3420		ug/Kg	✱	86	53 - 110
Dibenzofuran	13	J	3940	3480		ug/Kg	✱	88	65 - 108
Fluorene	21	J	3940	3480		ug/Kg	✱	88	65 - 109
Hexachlorobenzene	39	U	3940	3680		ug/Kg	✱	93	61 - 113
Phenanthrene	300	J	3940	3790		ug/Kg	✱	89	66 - 112

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-246437-1 MS

Matrix: Solid

Analysis Batch: 811275

Client Sample ID: 114_PE-19

Prep Type: Total/NA

Prep Batch: 811216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	56	J	3940	3610		ug/Kg	✱	90	67 - 114
Fluoranthene	460		3940	4040		ug/Kg	✱	91	61 - 106
Pyrene	410		3940	3860		ug/Kg	✱	87	61 - 111
Benzo[a]anthracene	200		3940	3750		ug/Kg	✱	90	67 - 115
Chrysene	210	J	3940	3600		ug/Kg	✱	86	71 - 122
Benzo[b]fluoranthene	240		3940	4280		ug/Kg	✱	102	70 - 125
Benzo[k]fluoranthene	100		3940	3590		ug/Kg	✱	88	67 - 115
Benzo[a]pyrene	180		3940	4160		ug/Kg	✱	101	73 - 123
Indeno[1,2,3-cd]pyrene	160		3940	3960		ug/Kg	✱	96	62 - 121
Dibenz(a,h)anthracene	19	J	3940	4120		ug/Kg	✱	104	66 - 119
Benzo[g,h,i]perylene	110	J	3940	3610		ug/Kg	✱	89	61 - 113
1,4-Dioxane	39	U *	3940	2850		ug/Kg	✱	72	31 - 81

Surrogate	MS %Recovery	MS Qualifier	MS Limits
Nitrobenzene-d5 (Surr)	81		11 - 104
Phenol-d5 (Surr)	82		15 - 100
Terphenyl-d14 (Surr)	82		12 - 126
2,4,6-Tribromophenol (Surr)	88		10 - 123
2-Fluorophenol (Surr)	80		10 - 105
2-Fluorobiphenyl	78		14 - 103

Lab Sample ID: 460-246437-1 MSD

Matrix: Solid

Analysis Batch: 811275

Client Sample ID: 114_PE-19

Prep Type: Total/NA

Prep Batch: 811216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	390	U	3940	3630		ug/Kg	✱	92	63 - 110	0	30
2-Methylphenol	390	U	3940	3490		ug/Kg	✱	88	63 - 108	1	30
3 & 4 Methylphenol	390	U	3940	3520		ug/Kg	✱	89	61 - 108	1	30
Pentachlorophenol	310	U	7890	7500		ug/Kg	✱	95	44 - 126	2	30
Naphthalene	20	J	3940	3500		ug/Kg	✱	88	63 - 106	1	30
Acenaphthylene	6.1	J	3940	3530		ug/Kg	✱	89	64 - 108	1	30
Acenaphthene	33	J	3940	3490		ug/Kg	✱	88	53 - 110	2	30
Dibenzofuran	13	J	3940	3500		ug/Kg	✱	88	65 - 108	1	30
Fluorene	21	J	3940	3550		ug/Kg	✱	89	65 - 109	2	30
Hexachlorobenzene	39	U	3940	3620		ug/Kg	✱	92	61 - 113	2	30
Phenanthrene	300	J	3940	3780		ug/Kg	✱	88	66 - 112	0	30
Anthracene	56	J	3940	3610		ug/Kg	✱	90	67 - 114	0	30
Fluoranthene	460		3940	3990		ug/Kg	✱	90	61 - 106	1	30
Pyrene	410		3940	3890		ug/Kg	✱	88	61 - 111	1	30
Benzo[a]anthracene	200		3940	3760		ug/Kg	✱	90	67 - 115	0	30
Chrysene	210	J	3940	3660		ug/Kg	✱	87	71 - 122	2	30
Benzo[b]fluoranthene	240		3940	4200		ug/Kg	✱	101	70 - 125	2	30
Benzo[k]fluoranthene	100		3940	3730		ug/Kg	✱	92	67 - 115	4	30
Benzo[a]pyrene	180		3940	4170		ug/Kg	✱	101	73 - 123	0	30
Indeno[1,2,3-cd]pyrene	160		3940	3940		ug/Kg	✱	96	62 - 121	1	30
Dibenz(a,h)anthracene	19	J	3940	4150		ug/Kg	✱	105	66 - 119	1	30
Benzo[g,h,i]perylene	110	J	3940	3650		ug/Kg	✱	90	61 - 113	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-246437-1 MSD

Matrix: Solid

Analysis Batch: 811275

Client Sample ID: 114_PE-19

Prep Type: Total/NA

Prep Batch: 811216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	39	U *	3940	2780		ug/Kg	✱	70	31 - 81	3	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5 (Surr)	79		11 - 104								
Phenol-d5 (Surr)	80		15 - 100								
Terphenyl-d14 (Surr)	82		12 - 126								
2,4,6-Tribromophenol (Surr)	88		10 - 123								
2-Fluorophenol (Surr)	78		10 - 105								
2-Fluorobiphenyl	78		14 - 103								

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-811190/1-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Chlordane (technical)	67	U	67	16	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Chlordane (technical)	67	U	67	16	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endrin	6.7	U	6.7	0.96	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endrin	6.7	U	6.7	0.96	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		11/03/21 18:24	11/04/21 05:30	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-811190/1-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	6.7	U	6.7	0.79	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Toxaphene	67	U	67	24	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
Toxaphene	67	U	67	24	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		11/03/21 18:24	11/04/21 05:30	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		11/03/21 18:24	11/04/21 05:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	56		10 - 150	11/03/21 18:24	11/04/21 05:30	1
DCB Decachlorobiphenyl	67		10 - 150	11/03/21 18:24	11/04/21 05:30	1
Tetrachloro-m-xylene	58		10 - 133	11/03/21 18:24	11/04/21 05:30	1
Tetrachloro-m-xylene	59		10 - 133	11/03/21 18:24	11/04/21 05:30	1

Lab Sample ID: LCS 460-811190/26-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlordane (technical)	667	584		ug/Kg		88	65 - 133
Chlordane (technical)	667	573		ug/Kg		86	65 - 133
Toxaphene	667	506		ug/Kg		76	49 - 114
Toxaphene	667	409		ug/Kg		61	49 - 114

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	67		10 - 150
DCB Decachlorobiphenyl	76		10 - 150
Tetrachloro-m-xylene	61		10 - 133
Tetrachloro-m-xylene	60		10 - 133

Lab Sample ID: LCS 460-811190/2-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	127		ug/Kg		95	70 - 140
4,4'-DDD	133	137		ug/Kg		103	70 - 140
4,4'-DDE	133	132		ug/Kg		99	71 - 137
4,4'-DDE	133	143		ug/Kg		107	71 - 137
4,4'-DDT	133	128		ug/Kg		96	63 - 131
4,4'-DDT	133	140		ug/Kg		105	63 - 131
Aldrin	133	127		ug/Kg		95	74 - 140
Aldrin	133	140		ug/Kg		105	74 - 140
alpha-BHC	133	127		ug/Kg		95	72 - 142
alpha-BHC	133	142		ug/Kg		106	72 - 142

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-811190/2-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC	133	131		ug/Kg		98	65 - 137
beta-BHC	133	143		ug/Kg		107	65 - 137
delta-BHC	133	123		ug/Kg		92	70 - 143
delta-BHC	133	136		ug/Kg		102	70 - 143
Dieldrin	133	129		ug/Kg		97	70 - 135
Dieldrin	133	137		ug/Kg		103	70 - 135
Endosulfan I	133	126		ug/Kg		94	68 - 135
Endosulfan I	133	136		ug/Kg		102	68 - 135
Endosulfan II	133	124		ug/Kg		93	64 - 130
Endosulfan II	133	138		ug/Kg		103	64 - 130
Endosulfan sulfate	133	122		ug/Kg		92	66 - 143
Endosulfan sulfate	133	132		ug/Kg		99	66 - 143
Endrin	133	125		ug/Kg		94	68 - 136
Endrin	133	136		ug/Kg		102	68 - 136
Endrin aldehyde	133	123		ug/Kg		92	68 - 132
Endrin aldehyde	133	130		ug/Kg		97	68 - 132
Endrin ketone	133	121		ug/Kg		91	60 - 150
Endrin ketone	133	129		ug/Kg		96	60 - 150
gamma-BHC (Lindane)	133	128		ug/Kg		96	70 - 134
gamma-BHC (Lindane)	133	141		ug/Kg		106	70 - 134
Heptachlor	133	125		ug/Kg		93	69 - 134
Heptachlor	133	137		ug/Kg		102	69 - 134
Heptachlor epoxide	133	125		ug/Kg		94	70 - 135
Heptachlor epoxide	133	137		ug/Kg		103	70 - 135
Methoxychlor	133	122		ug/Kg		91	57 - 135
Methoxychlor	133	128		ug/Kg		96	57 - 135
cis-Chlordane	133	126		ug/Kg		95	70 - 136
cis-Chlordane	133	137		ug/Kg		103	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	102		10 - 150
DCB Decachlorobiphenyl	115		10 - 150
Tetrachloro-m-xylene	92		10 - 133
Tetrachloro-m-xylene	103		10 - 133

Lab Sample ID: LCSD 460-811190/27-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 811190

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlordane (technical)	667	662		ug/Kg		99	65 - 133	13	30
Chlordane (technical)	667	701		ug/Kg		105	65 - 133	20	30
Toxaphene	667	530		ug/Kg		79	49 - 114	4	30
Toxaphene	667	487		ug/Kg		73	49 - 114	17	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	73		10 - 150
DCB Decachlorobiphenyl	82		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-811190/27-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 811190

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	66		10 - 133
Tetrachloro-m-xylene	72		10 - 133

Lab Sample ID: LCSD 460-811190/3-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 811190

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	133	126		ug/Kg		94	70 - 140	1	30
4,4'-DDD	133	132		ug/Kg		99	70 - 140	4	30
4,4'-DDE	133	130		ug/Kg		97	71 - 137	2	30
4,4'-DDE	133	138		ug/Kg		103	71 - 137	4	30
4,4'-DDT	133	127		ug/Kg		95	63 - 131	1	30
4,4'-DDT	133	136		ug/Kg		102	63 - 131	3	30
Aldrin	133	128		ug/Kg		96	74 - 140	1	30
Aldrin	133	135		ug/Kg		101	74 - 140	4	30
alpha-BHC	133	128		ug/Kg		96	72 - 142	0	30
alpha-BHC	133	138		ug/Kg		103	72 - 142	3	30
beta-BHC	133	130		ug/Kg		98	65 - 137	1	30
beta-BHC	133	139		ug/Kg		104	65 - 137	3	30
delta-BHC	133	124		ug/Kg		93	70 - 143	1	30
delta-BHC	133	132		ug/Kg		99	70 - 143	2	30
Dieldrin	133	126		ug/Kg		95	70 - 135	2	30
Dieldrin	133	132		ug/Kg		99	70 - 135	4	30
Endosulfan I	133	123		ug/Kg		93	68 - 135	2	30
Endosulfan I	133	131		ug/Kg		98	68 - 135	4	30
Endosulfan II	133	122		ug/Kg		91	64 - 130	2	30
Endosulfan II	133	133		ug/Kg		100	64 - 130	4	30
Endosulfan sulfate	133	121		ug/Kg		91	66 - 143	1	30
Endosulfan sulfate	133	128		ug/Kg		96	66 - 143	3	30
Endrin	133	123		ug/Kg		92	68 - 136	2	30
Endrin	133	130		ug/Kg		98	68 - 136	4	30
Endrin aldehyde	133	121		ug/Kg		91	68 - 132	1	30
Endrin aldehyde	133	126		ug/Kg		95	68 - 132	3	30
Endrin ketone	133	118		ug/Kg		89	60 - 150	3	30
Endrin ketone	133	125		ug/Kg		93	60 - 150	3	30
gamma-BHC (Lindane)	133	128		ug/Kg		96	70 - 134	0	30
gamma-BHC (Lindane)	133	137		ug/Kg		103	70 - 134	3	30
Heptachlor	133	125		ug/Kg		94	69 - 134	0	30
Heptachlor	133	132		ug/Kg		99	69 - 134	3	30
Heptachlor epoxide	133	124		ug/Kg		93	70 - 135	0	30
Heptachlor epoxide	133	132		ug/Kg		99	70 - 135	4	30
Methoxychlor	133	119		ug/Kg		89	57 - 135	2	30
Methoxychlor	133	123		ug/Kg		93	57 - 135	3	30
cis-Chlordane	133	124		ug/Kg		93	70 - 136	2	30
cis-Chlordane	133	132		ug/Kg		99	70 - 136	3	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-811190/3-A

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 811190

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	82		10 - 150
DCB Decachlorobiphenyl	94		10 - 150
Tetrachloro-m-xylene	80		10 - 133
Tetrachloro-m-xylene	86		10 - 133

Lab Sample ID: 460-246428-E-7-C MS

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811190

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
4,4'-DDD	7.9	U	157	121		ug/Kg	✱	77	70 - 140
4,4'-DDD	7.9	U	157	118		ug/Kg	✱	75	70 - 140
4,4'-DDE	7.9	U	157	123		ug/Kg	✱	79	71 - 137
4,4'-DDE	7.9	U	157	121		ug/Kg	✱	77	71 - 137
4,4'-DDT	7.9	U	157	121		ug/Kg	✱	77	63 - 131
4,4'-DDT	7.9	U	157	118		ug/Kg	✱	75	63 - 131
Aldrin	7.9	U	157	119		ug/Kg	✱	76	74 - 140
Aldrin	7.9	U	157	120		ug/Kg	✱	76	74 - 140
alpha-BHC	2.4	U	157	118		ug/Kg	✱	75	72 - 142
alpha-BHC	2.4	U	157	122		ug/Kg	✱	78	72 - 142
beta-BHC	2.4	U	157	123		ug/Kg	✱	78	65 - 137
beta-BHC	2.4	U	157	124		ug/Kg	✱	79	65 - 137
delta-BHC	2.4	U	157	116		ug/Kg	✱	74	70 - 143
delta-BHC	2.4	U	157	118		ug/Kg	✱	75	70 - 143
Dieldrin	2.4	U	157	121		ug/Kg	✱	77	70 - 135
Dieldrin	2.4	U	157	117		ug/Kg	✱	75	70 - 135
Endosulfan I	7.9	U	157	115		ug/Kg	✱	74	68 - 135
Endosulfan I	7.9	U	157	116		ug/Kg	✱	74	68 - 135
Endosulfan II	7.9	U	157	117		ug/Kg	✱	75	64 - 130
Endosulfan II	7.9	U	157	119		ug/Kg	✱	76	64 - 130
Endosulfan sulfate	7.9	U	157	117		ug/Kg	✱	75	66 - 143
Endosulfan sulfate	7.9	U	157	115		ug/Kg	✱	73	66 - 143
Endrin	7.9	U	157	117		ug/Kg	✱	74	68 - 136
Endrin	7.9	U	157	115		ug/Kg	✱	73	68 - 136
Endrin aldehyde	7.9	U	157	114		ug/Kg	✱	73	68 - 132
Endrin aldehyde	7.9	U	157	111		ug/Kg	✱	71	68 - 132
Endrin ketone	7.9	U	157	113		ug/Kg	✱	72	60 - 150
Endrin ketone	7.9	U	157	113		ug/Kg	✱	72	60 - 150
gamma-BHC (Lindane)	2.4	U	157	119		ug/Kg	✱	76	70 - 134
gamma-BHC (Lindane)	2.4	U	157	121		ug/Kg	✱	77	70 - 134
Heptachlor	7.9	U	157	116		ug/Kg	✱	74	69 - 134
Heptachlor	7.9	U	157	116		ug/Kg	✱	74	69 - 134
Heptachlor epoxide	7.9	U	157	117		ug/Kg	✱	74	70 - 135
Heptachlor epoxide	7.9	U	157	117		ug/Kg	✱	75	70 - 135
Methoxychlor	7.9	U	157	115		ug/Kg	✱	73	57 - 135
Methoxychlor	7.9	U	157	109		ug/Kg	✱	70	57 - 135
cis-Chlordane	7.9	U	157	116		ug/Kg	✱	74	70 - 136
cis-Chlordane	7.9	U	157	117		ug/Kg	✱	75	70 - 136

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-246428-E-7-C MS

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811190

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	61		10 - 150
DCB Decachlorobiphenyl	66		10 - 150
Tetrachloro-m-xylene	57		10 - 133
Tetrachloro-m-xylene	57		10 - 133

Lab Sample ID: 460-246428-E-7-D MSD

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 811190

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	7.9	U	157	103	*	ug/Kg	☼	66	70 - 140	16	30
4,4'-DDD	7.9	U	157	101	*	ug/Kg	☼	65	70 - 140	15	30
4,4'-DDE	7.9	U	157	105	*	ug/Kg	☼	67	71 - 137	16	30
4,4'-DDE	7.9	U	157	104	*	ug/Kg	☼	66	71 - 137	15	30
4,4'-DDT	7.9	U	157	102		ug/Kg	☼	65	63 - 131	16	30
4,4'-DDT	7.9	U	157	101		ug/Kg	☼	64	63 - 131	16	30
Aldrin	7.9	U	157	102	*	ug/Kg	☼	65	74 - 140	15	30
Aldrin	7.9	U	157	103	*	ug/Kg	☼	66	74 - 140	15	30
alpha-BHC	2.4	U	157	102	*	ug/Kg	☼	65	72 - 142	15	30
alpha-BHC	2.4	U	157	106	*	ug/Kg	☼	67	72 - 142	14	30
beta-BHC	2.4	U	157	106		ug/Kg	☼	68	65 - 137	15	30
beta-BHC	2.4	U	157	107		ug/Kg	☼	69	65 - 137	14	30
delta-BHC	2.4	U	157	99.5	*	ug/Kg	☼	63	70 - 143	15	30
delta-BHC	2.4	U	157	102	*	ug/Kg	☼	65	70 - 143	15	30
Dieldrin	2.4	U	157	102	*	ug/Kg	☼	65	70 - 135	17	30
Dieldrin	2.4	U	157	101	*	ug/Kg	☼	64	70 - 135	15	30
Endosulfan I	7.9	U	157	98.6	*	ug/Kg	☼	63	68 - 135	16	30
Endosulfan I	7.9	U	157	100	*	ug/Kg	☼	64	68 - 135	15	30
Endosulfan II	7.9	U	157	101		ug/Kg	☼	64	64 - 130	15	30
Endosulfan II	7.9	U	157	103		ug/Kg	☼	65	64 - 130	15	30
Endosulfan sulfate	7.9	U	157	101	*	ug/Kg	☼	64	66 - 143	15	30
Endosulfan sulfate	7.9	U	157	99.3	*	ug/Kg	☼	63	66 - 143	15	30
Endrin	7.9	U	157	99.9	*	ug/Kg	☼	64	68 - 136	15	30
Endrin	7.9	U	157	98.7	*	ug/Kg	☼	63	68 - 136	15	30
Endrin aldehyde	7.9	U	157	97.6	*	ug/Kg	☼	62	68 - 132	16	30
Endrin aldehyde	7.9	U	157	95.3	*	ug/Kg	☼	61	68 - 132	15	30
Endrin ketone	7.9	U	157	96.9		ug/Kg	☼	62	60 - 150	15	30
Endrin ketone	7.9	U	157	97.7		ug/Kg	☼	62	60 - 150	15	30
gamma-BHC (Lindane)	2.4	U	157	103	*	ug/Kg	☼	66	70 - 134	15	30
gamma-BHC (Lindane)	2.4	U	157	105	*	ug/Kg	☼	67	70 - 134	14	30
Heptachlor	7.9	U	157	99.8	*	ug/Kg	☼	64	69 - 134	15	30
Heptachlor	7.9	U	157	100	*	ug/Kg	☼	64	69 - 134	15	30
Heptachlor epoxide	7.9	U	157	100	*	ug/Kg	☼	64	70 - 135	15	30
Heptachlor epoxide	7.9	U	157	101	*	ug/Kg	☼	64	70 - 135	15	30
Methoxychlor	7.9	U	157	98.1		ug/Kg	☼	63	57 - 135	16	30
Methoxychlor	7.9	U	157	94.0		ug/Kg	☼	60	57 - 135	15	30
cis-Chlordane	7.9	U	157	98.8	*	ug/Kg	☼	63	70 - 136	16	30
cis-Chlordane	7.9	U	157	101	*	ug/Kg	☼	64	70 - 136	15	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-246428-E-7-D MSD

Matrix: Solid

Analysis Batch: 811231

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 811190

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	69		10 - 150
DCB Decachlorobiphenyl	71		10 - 150
Tetrachloro-m-xylene	65		10 - 133
Tetrachloro-m-xylene	67		10 - 133

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-811182/1-A

Matrix: Solid

Analysis Batch: 811255

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811182

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1016	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1221	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1221	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1232	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1232	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1242	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1242	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1248	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1248	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1254	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1254	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1260	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1260	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor-1262	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor-1262	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1268	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Aroclor 1268	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		11/03/21 18:08	11/04/21 08:46	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
DCB Decachlorobiphenyl	82		37 - 150			11/03/21 18:08	11/04/21 08:46	1	
DCB Decachlorobiphenyl	83		37 - 150			11/03/21 18:08	11/04/21 08:46	1	
Tetrachloro-m-xylene	80		54 - 150			11/03/21 18:08	11/04/21 08:46	1	
Tetrachloro-m-xylene	77		54 - 150			11/03/21 18:08	11/04/21 08:46	1	

Lab Sample ID: LCS 460-811182/2-A

Matrix: Solid

Analysis Batch: 811255

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811182

Analyte	Spike	LCS	LCS						
	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits	
Aroclor 1016	333	337		ug/Kg		101		65 - 133	
Aroclor 1016	333	308		ug/Kg		92		65 - 133	
Aroclor 1260	333	344		ug/Kg		103		71 - 150	
Aroclor 1260	333	327		ug/Kg		98		71 - 150	

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-811182/2-A

Matrix: Solid

Analysis Batch: 811255

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811182

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	95		37 - 150
DCB Decachlorobiphenyl	99		37 - 150
Tetrachloro-m-xylene	89		54 - 150
Tetrachloro-m-xylene	88		54 - 150

Lab Sample ID: LCSD 460-811182/3-A

Matrix: Solid

Analysis Batch: 811255

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 811182

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	279		ug/Kg		84	65 - 133	19	30
Aroclor 1016	333	247		ug/Kg		74	65 - 133	22	30
Aroclor 1260	333	278		ug/Kg		83	71 - 150	21	30
Aroclor 1260	333	260		ug/Kg		78	71 - 150	23	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	76		37 - 150
DCB Decachlorobiphenyl	80		37 - 150
Tetrachloro-m-xylene	72		54 - 150
Tetrachloro-m-xylene	71		54 - 150

Lab Sample ID: 460-246428-E-7-A MS

Matrix: Solid

Analysis Batch: 811255

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	79	U	392	304		ug/Kg	⚡	77	65 - 133
Aroclor 1016	79	U	392	285		ug/Kg	⚡	73	65 - 133
Aroclor 1260	79	U	392	328		ug/Kg	⚡	84	71 - 150
Aroclor 1260	79	U	392	317		ug/Kg	⚡	81	71 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	59		37 - 150
DCB Decachlorobiphenyl	60		37 - 150
Tetrachloro-m-xylene	53	*	54 - 150
Tetrachloro-m-xylene	52	*	54 - 150

Lab Sample ID: 460-246428-E-7-B MSD

Matrix: Solid

Analysis Batch: 811255

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 811182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	79	U	392	307		ug/Kg	⚡	78	65 - 133	1	30
Aroclor 1016	79	U	392	276		ug/Kg	⚡	70	65 - 133	3	30
Aroclor 1260	79	U	392	321		ug/Kg	⚡	82	71 - 150	2	30
Aroclor 1260	79	U	392	314		ug/Kg	⚡	80	71 - 150	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 460-246428-E-7-B MSD

Matrix: Solid

Analysis Batch: 811255

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 811182

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	51		37 - 150
DCB Decachlorobiphenyl	51		37 - 150
Tetrachloro-m-xylene	46	*	54 - 150
Tetrachloro-m-xylene	45	*	54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-811220/1-A

Matrix: Solid

Analysis Batch: 811359

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811220

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		11/03/21 23:57	11/04/21 13:48	1	
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		11/03/21 23:57	11/04/21 13:48	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil	Fac
2,4-Dichlorophenylacetic acid	103		65 - 150				11/03/21 23:57	11/04/21 13:48	1	
2,4-Dichlorophenylacetic acid	116		65 - 150				11/03/21 23:57	11/04/21 13:48	1	

Lab Sample ID: LCS 460-811220/2-A

Matrix: Solid

Analysis Batch: 811359

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811220

	Spike	LCS	LCS							
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Silvex (2,4,5-TP)	8.33	11.4	J	ug/Kg		137	58 - 150			
Silvex (2,4,5-TP)	8.33	12.9	J *	ug/Kg		155	58 - 150			
Surrogate	%Recovery	Qualifier	Limits							
2,4-Dichlorophenylacetic acid	113		65 - 150							
2,4-Dichlorophenylacetic acid	125		65 - 150							

Lab Sample ID: LCSD 460-811220/3-A

Matrix: Solid

Analysis Batch: 811359

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 811220

	Spike	LCSD	LCSD							
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Silvex (2,4,5-TP)	8.33	11.6	J	ug/Kg		139	58 - 150	1	30	
Silvex (2,4,5-TP)	8.33	13.3	J *	ug/Kg		160	58 - 150	3	30	
Surrogate	%Recovery	Qualifier	Limits							
2,4-Dichlorophenylacetic acid	105		65 - 150							
2,4-Dichlorophenylacetic acid	118		65 - 150							

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-191052/1-B

Matrix: Solid

Analysis Batch: 191576

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 191052

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		11/04/21 18:39	11/06/21 15:54	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		11/04/21 18:39	11/06/21 15:54	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	155		10 - 178	11/04/21 18:39	11/06/21 15:54	1
M2-6:2 FTS	144		10 - 182	11/04/21 18:39	11/06/21 15:54	1
13C5 PFHxA	147	*	11 - 138	11/04/21 18:39	11/06/21 15:54	1
13C4 PFHpA	146	*	15 - 139	11/04/21 18:39	11/06/21 15:54	1
13C8 PFOA	144	*	21 - 133	11/04/21 18:39	11/06/21 15:54	1
13C9 PFNA	148	*	15 - 145	11/04/21 18:39	11/06/21 15:54	1
13C6 PFDA	146	*	21 - 134	11/04/21 18:39	11/06/21 15:54	1
13C7 PFUnA	145	*	15 - 138	11/04/21 18:39	11/06/21 15:54	1
13C2-PFDoDA	144	*	28 - 126	11/04/21 18:39	11/06/21 15:54	1
13C2 PFTeDA	143	*	10 - 138	11/04/21 18:39	11/06/21 15:54	1
13C3 PFBS	155	*	23 - 130	11/04/21 18:39	11/06/21 15:54	1
13C3 PFHxS	154	*	24 - 136	11/04/21 18:39	11/06/21 15:54	1
13C8 PFOS	150	*	31 - 130	11/04/21 18:39	11/06/21 15:54	1
d3-NMeFOSAA	113		10 - 172	11/04/21 18:39	11/06/21 15:54	1
d5-NEtFOSAA	140		10 - 176	11/04/21 18:39	11/06/21 15:54	1
13C8 FOSA	146	*	25 - 135	11/04/21 18:39	11/06/21 15:54	1
13C4 PFBA	148	*	12 - 137	11/04/21 18:39	11/06/21 15:54	1
13C5 PFPeA	158	*	12 - 135	11/04/21 18:39	11/06/21 15:54	1

Lab Sample ID: LCS 410-191052/2-B

Matrix: Solid

Analysis Batch: 191576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 191052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.0	19.57		ug/Kg		78	61 - 147
Perfluoroheptanoic acid	25.0	21.13		ug/Kg		85	61 - 151

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-191052/2-B

Matrix: Solid

Analysis Batch: 191576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 191052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid	25.0	22.14		ug/Kg		89	62 - 144
Perfluorononanoic acid	25.0	21.17		ug/Kg		85	62 - 148
Perfluorodecanoic acid	25.0	21.26		ug/Kg		85	62 - 142
Perfluorotridecanoic acid	25.0	22.90		ug/Kg		92	57 - 152
Perfluorotetradecanoic acid	25.0	21.32		ug/Kg		85	60 - 147
Perfluorobutanesulfonic acid	22.1	18.69		ug/Kg		84	62 - 137
Perfluorohexanesulfonic acid	22.8	17.96		ug/Kg		79	57 - 135
Perfluorooctanesulfonic acid	23.1	20.43		ug/Kg		88	48 - 134
NEtFOSAA	25.0	19.72		ug/Kg		79	50 - 140
NMeFOSAA	25.0	21.21		ug/Kg		85	53 - 149
Perfluoroheptanesulfonic acid	23.8	18.17		ug/Kg		76	67 - 138
Perfluorodecanesulfonic acid	24.1	21.64		ug/Kg		90	60 - 142
Perfluorooctanesulfonamide	25.0	20.58		ug/Kg		82	52 - 132
Perfluorobutanoic acid	25.0	19.37		ug/Kg		77	50 - 185
Perfluoroundecanoic acid	25.0	23.98		ug/Kg		96	62 - 144
Perfluorododecanoic acid	25.0	21.53		ug/Kg		86	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	18.06		ug/Kg		76	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	18.41		ug/Kg		77	50 - 147
Perfluoropentanoic acid	25.0	21.49		ug/Kg		86	69 - 144

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-8:2 FTS	143		10 - 178
M2-6:2 FTS	129		10 - 182
13C5 PFHxA	132		11 - 138
13C4 PFHpA	134		15 - 139
13C8 PFOA	129		21 - 133
13C9 PFNA	135		15 - 145
13C6 PFDA	133		21 - 134
13C7 PFUnA	131		15 - 138
13C2-PFDoDA	136 *		28 - 126
13C2 PFTeDA	133		10 - 138
13C3 PFBS	145 *		23 - 130
13C3 PFHxS	141 *		24 - 136
13C8 PFOS	133 *		31 - 130
d3-NMeFOSAA	112		10 - 172
d5-NEtFOSAA	129		10 - 176
13C8 FOSA	141 *		25 - 135
13C4 PFBA	134		12 - 137
13C5 PFPeA	141 *		12 - 135

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-812001/1-A

Matrix: Solid

Analysis Batch: 812063

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812001

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		11/08/21 04:22	11/08/21 19:20	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-812001/1-A

Matrix: Solid

Analysis Batch: 812063

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812001

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	2.0	U	2.0	0.15	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Chromium	0.626	J	2.0	0.27	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Copper	2.0	U	2.0	0.37	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Manganese	4.0	U	4.0	0.40	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Nickel	2.0	U	2.0	0.47	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Lead	0.60	U	0.60	0.20	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Selenium	1.3	U	1.3	0.13	mg/Kg		11/08/21 04:22	11/08/21 19:20	1
Zinc	8.0	U	8.0	3.1	mg/Kg		11/08/21 04:22	11/08/21 19:20	1

Lab Sample ID: LCSSRM 460-812001/2-A ^5

Matrix: Solid

Analysis Batch: 812063

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812001

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	22.86		mg/Kg		68.0	48.2 - 73.5
Arsenic	140	159.3		mg/Kg		113.8	82.9 - 117.9
Barium	202	214.3		mg/Kg		106.1	81.2 - 118.3
Beryllium	42.6	42.95		mg/Kg		100.8	81.0 - 119.0
Cadmium	97.9	109.6		mg/Kg		112.0	80.0 - 119.5
Chromium	60.4	67.26		mg/Kg		111.4	80.3 - 119.7
Copper	122	136.4		mg/Kg		111.8	82.8 - 117.2
Manganese	457	504.3		mg/Kg		110.3	79.6 - 120.6
Nickel	151	173.6		mg/Kg		115.0	79.5 - 121.2
Lead	56.7	63.01		mg/Kg		111.1	82.9 - 116.9
Selenium	35.5	41.13		mg/Kg		115.9	77.5 - 122.3
Zinc	186	198.1		mg/Kg		106.5	79.0 - 121.0

Lab Sample ID: 460-246493-B-1-C MS

Matrix: Solid

Analysis Batch: 812063

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 812001

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.1	U	5.26	5.48		mg/Kg	☼	104	75 - 125
Arsenic	1.4		10.5	12.52		mg/Kg	☼	106	75 - 125
Barium	36.2		10.5	45.14		mg/Kg	☼	85	75 - 125
Beryllium	0.28	J	5.26	5.36		mg/Kg	☼	97	75 - 125
Cadmium	1.1	U	5.26	5.44		mg/Kg	☼	103	75 - 125
Chromium	12.9	B	10.5	24.08		mg/Kg	☼	106	75 - 125
Copper	17.3		10.5	33.18	N	mg/Kg	☼	151	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-246493-B-1-C MS

Matrix: Solid

Analysis Batch: 812063

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 812001

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	284		52.6	285.7	4	mg/Kg	✱	3	75 - 125
Nickel	12.0		10.5	22.25		mg/Kg	✱	97	75 - 125
Lead	17.2		5.26	27.72	N	mg/Kg	✱	200	75 - 125
Selenium	1.3	U	10.5	10.68		mg/Kg	✱	102	75 - 125
Zinc	31.9		52.6	88.58		mg/Kg	✱	108	75 - 125

Lab Sample ID: 460-246493-B-1-B DU

Matrix: Solid

Analysis Batch: 812063

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 812001

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.1	U	1.1	U	mg/Kg	✱	NC	20
Arsenic	1.4		1.57		mg/Kg	✱	10	20
Barium	36.2		34.26		mg/Kg	✱	6	20
Beryllium	0.28	J	0.295	J	mg/Kg	✱	6	20
Cadmium	1.1	U	1.1	U	mg/Kg	✱	NC	20
Chromium	12.9	B	11.71		mg/Kg	✱	10	20
Copper	17.3		21.40	*	mg/Kg	✱	21	20
Manganese	284		254.5		mg/Kg	✱	11	20
Nickel	12.0		11.21		mg/Kg	✱	7	20
Lead	17.2		21.85	*	mg/Kg	✱	24	20
Selenium	1.3	U	1.3	U	mg/Kg	✱	NC	20
Zinc	31.9		34.85		mg/Kg	✱	9	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-811987/1-A

Matrix: Solid

Analysis Batch: 812039

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811987

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		11/08/21 02:40	11/08/21 06:40	1

Lab Sample ID: LCSSRM 460-811987/2-A ^40

Matrix: Solid

Analysis Batch: 812039

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811987

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	17.34		mg/Kg		105.1	74.5 - 124.8

Lab Sample ID: 460-246205-C-1-F MS

Matrix: Solid

Analysis Batch: 812039

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811987

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.69		0.105	0.711	4	mg/Kg	✱	17	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 460-246205-D-1-J MSD

Matrix: Solid

Analysis Batch: 812039

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 811987

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.69		0.105	0.746	4	mg/Kg	✱	51	80 - 120	5	20

Lab Sample ID: 460-246205-A-1-D DU

Matrix: Solid

Analysis Batch: 812039

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 811987

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.69		0.737		mg/Kg	✱	6	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-811788/1-A

Matrix: Solid

Analysis Batch: 811911

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 811788

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		11/06/21 10:53	11/07/21 10:25	1

Lab Sample ID: LCSi 460-811788/3-A

Matrix: Solid

Analysis Batch: 811911

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811788

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	645.0		mg/Kg		91	80 - 120

Lab Sample ID: LCSSRM 460-811788/4-A

Matrix: Solid

Analysis Batch: 811911

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 811788

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	112.5		mg/Kg		85.9	61.3 - 138.2

Lab Sample ID: 460-246341-G-3-C MSS

Matrix: Solid

Analysis Batch: 811911

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.4	U	48.4	40.21		mg/Kg	✱	83	75 - 125

Lab Sample ID: 460-246341-G-3-D MSI

Matrix: Solid

Analysis Batch: 811911

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 811788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.4	U	856	765.8		mg/Kg	✱	89	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-246341-G-3-B DU
Matrix: Solid
Analysis Batch: 811911

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 811788

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.4	U	2.4	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-811766/2-A
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 811766

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		11/06/21 08:53	11/07/21 12:54	1

Lab Sample ID: LCSSRM 460-811766/3-A ^20
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 811766

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	95.3	75.84		mg/Kg		79.6	23.7 - 123.8

Lab Sample ID: MRL 460-811766/1-A
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 811766

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0115		mg/L		115	50 - 150

Lab Sample ID: 460-246521-F-1-D MS
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 811766

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.26	U	5.22	6.34	N	mg/Kg	✱	121	11 - 108

Lab Sample ID: 460-246521-F-1-E MSD
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 811766

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	0.26	U	4.85	5.74	N	mg/Kg	✱	119	11 - 108	10	40

Lab Sample ID: MB 460-811767/1-A
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 811767

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		11/06/21 08:58	11/07/21 13:23	1

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCSSRM 460-811767/2-A ^20
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 811767

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	95.3	64.32		mg/Kg		67.5	23.7 - 123.8

Lab Sample ID: 460-246437-4 MS
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: 117_PE-19-SW
Prep Type: Total/NA
Prep Batch: 811767

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.19	J	5.95	8.18	N	mg/Kg	✱	134	11 - 108

Lab Sample ID: 460-246437-4 MSD
Matrix: Solid
Analysis Batch: 811950

Client Sample ID: 117_PE-19-SW
Prep Type: Total/NA
Prep Batch: 811767

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.19	J	5.15	6.88	N	mg/Kg	✱	130	11 - 108	17	40

Method: Moisture - Percent Moisture

Lab Sample ID: 460-246475-A-5 DU
Matrix: Solid
Analysis Batch: 811473

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	12.1		12.7		%		5	20
Percent Solids	87.9		87.3		%		0.7	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

GC/MS VOA

Analysis Batch: 811281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-6	119_TB-8	Total/NA	Water	8260D	
MB 460-811281/11	Method Blank	Total/NA	Water	8260D	
LCS 460-811281/7	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-811281/8	Lab Control Sample Dup	Total/NA	Water	8260D	

Prep Batch: 811329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	5035	
460-246437-2	115_PE-19-NE	Total/NA	Solid	5035	
460-246437-3	116_PE-19-SE	Total/NA	Solid	5035	
460-246437-4	117_PE-19-SW	Total/NA	Solid	5035	
460-246437-5	118_PE-19-NW	Total/NA	Solid	5035	

Analysis Batch: 811625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	8260D	811329
460-246437-2	115_PE-19-NE	Total/NA	Solid	8260D	811329
460-246437-3	116_PE-19-SE	Total/NA	Solid	8260D	811329
460-246437-4	117_PE-19-SW	Total/NA	Solid	8260D	811329
460-246437-5	118_PE-19-NW	Total/NA	Solid	8260D	811329
MB 460-811625/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-811625/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-811625/4	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 811216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	3546	
460-246437-2	115_PE-19-NE	Total/NA	Solid	3546	
460-246437-3	116_PE-19-SE	Total/NA	Solid	3546	
460-246437-4	117_PE-19-SW	Total/NA	Solid	3546	
460-246437-5	118_PE-19-NW	Total/NA	Solid	3546	
MB 460-811216/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-811216/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-811216/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246437-1 MS	114_PE-19	Total/NA	Solid	3546	
460-246437-1 MSD	114_PE-19	Total/NA	Solid	3546	

Analysis Batch: 811275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	8270E	811216
460-246437-2	115_PE-19-NE	Total/NA	Solid	8270E	811216
460-246437-3	116_PE-19-SE	Total/NA	Solid	8270E	811216
460-246437-5	118_PE-19-NW	Total/NA	Solid	8270E	811216
MB 460-811216/1-A	Method Blank	Total/NA	Solid	8270E	811216
LCS 460-811216/2-A	Lab Control Sample	Total/NA	Solid	8270E	811216
LCSD 460-811216/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	811216
460-246437-1 MS	114_PE-19	Total/NA	Solid	8270E	811216
460-246437-1 MSD	114_PE-19	Total/NA	Solid	8270E	811216

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

GC/MS Semi VOA

Analysis Batch: 811287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-4	117_PE-19-SW	Total/NA	Solid	8270E	811216

GC Semi VOA

Prep Batch: 811182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	3546	
460-246437-2	115_PE-19-NE	Total/NA	Solid	3546	
460-246437-3	116_PE-19-SE	Total/NA	Solid	3546	
460-246437-4	117_PE-19-SW	Total/NA	Solid	3546	
460-246437-5	118_PE-19-NW	Total/NA	Solid	3546	
MB 460-811182/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-811182/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-811182/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246428-E-7-A MS	Matrix Spike	Total/NA	Solid	3546	
460-246428-E-7-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 811190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	3546	
460-246437-2	115_PE-19-NE	Total/NA	Solid	3546	
460-246437-3	116_PE-19-SE	Total/NA	Solid	3546	
460-246437-4	117_PE-19-SW	Total/NA	Solid	3546	
460-246437-5	118_PE-19-NW	Total/NA	Solid	3546	
MB 460-811190/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-811190/26-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 460-811190/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-811190/27-A	Lab Control Sample Dup	Total/NA	Solid	3546	
LCSD 460-811190/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246428-E-7-C MS	Matrix Spike	Total/NA	Solid	3546	
460-246428-E-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 811220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	8151A	
460-246437-2	115_PE-19-NE	Total/NA	Solid	8151A	
460-246437-3	116_PE-19-SE	Total/NA	Solid	8151A	
460-246437-4	117_PE-19-SW	Total/NA	Solid	8151A	
460-246437-5	118_PE-19-NW	Total/NA	Solid	8151A	
MB 460-811220/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-811220/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-811220/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 811231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	8081B	811190
460-246437-2	115_PE-19-NE	Total/NA	Solid	8081B	811190
460-246437-3	116_PE-19-SE	Total/NA	Solid	8081B	811190
460-246437-4	117_PE-19-SW	Total/NA	Solid	8081B	811190
460-246437-5	118_PE-19-NW	Total/NA	Solid	8081B	811190
MB 460-811190/1-A	Method Blank	Total/NA	Solid	8081B	811190

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

GC Semi VOA (Continued)

Analysis Batch: 811231 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-811190/26-A	Lab Control Sample	Total/NA	Solid	8081B	811190
LCS 460-811190/2-A	Lab Control Sample	Total/NA	Solid	8081B	811190
LCSD 460-811190/27-A	Lab Control Sample Dup	Total/NA	Solid	8081B	811190
LCSD 460-811190/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	811190
460-246428-E-7-C MS	Matrix Spike	Total/NA	Solid	8081B	811190
460-246428-E-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8081B	811190

Analysis Batch: 811255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	8082A	811182
460-246437-2	115_PE-19-NE	Total/NA	Solid	8082A	811182
460-246437-3	116_PE-19-SE	Total/NA	Solid	8082A	811182
460-246437-4	117_PE-19-SW	Total/NA	Solid	8082A	811182
460-246437-5	118_PE-19-NW	Total/NA	Solid	8082A	811182
MB 460-811182/1-A	Method Blank	Total/NA	Solid	8082A	811182
LCS 460-811182/2-A	Lab Control Sample	Total/NA	Solid	8082A	811182
LCSD 460-811182/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	811182
460-246428-E-7-A MS	Matrix Spike	Total/NA	Solid	8082A	811182
460-246428-E-7-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	811182

Analysis Batch: 811359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	8151A	811220
460-246437-2	115_PE-19-NE	Total/NA	Solid	8151A	811220
460-246437-3	116_PE-19-SE	Total/NA	Solid	8151A	811220
460-246437-4	117_PE-19-SW	Total/NA	Solid	8151A	811220
460-246437-5	118_PE-19-NW	Total/NA	Solid	8151A	811220
MB 460-811220/1-A	Method Blank	Total/NA	Solid	8151A	811220
LCS 460-811220/2-A	Lab Control Sample	Total/NA	Solid	8151A	811220
LCSD 460-811220/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	811220

LCMS

Prep Batch: 191052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	SHAKE	
460-246437-2	115_PE-19-NE	Total/NA	Solid	SHAKE	
460-246437-3	116_PE-19-SE	Total/NA	Solid	SHAKE	
460-246437-4	117_PE-19-SW	Total/NA	Solid	SHAKE	
460-246437-5	118_PE-19-NW	Total/NA	Solid	SHAKE	
MB 410-191052/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-191052/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	

Cleanup Batch: 191097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	Extract Aliquot	191052
460-246437-2	115_PE-19-NE	Total/NA	Solid	Extract Aliquot	191052
460-246437-3	116_PE-19-SE	Total/NA	Solid	Extract Aliquot	191052
460-246437-4	117_PE-19-SW	Total/NA	Solid	Extract Aliquot	191052
460-246437-5	118_PE-19-NW	Total/NA	Solid	Extract Aliquot	191052
MB 410-191052/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	191052

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

LCMS (Continued)

Cleanup Batch: 191097 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-191052/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	191052

Analysis Batch: 191576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	537 IDA	191097
460-246437-2	115_PE-19-NE	Total/NA	Solid	537 IDA	191097
460-246437-3	116_PE-19-SE	Total/NA	Solid	537 IDA	191097
460-246437-4	117_PE-19-SW	Total/NA	Solid	537 IDA	191097
460-246437-5	118_PE-19-NW	Total/NA	Solid	537 IDA	191097
MB 410-191052/1-B	Method Blank	Total/NA	Solid	537 IDA	191097
LCS 410-191052/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	191097

Metals

Prep Batch: 811987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	7471B	
460-246437-2	115_PE-19-NE	Total/NA	Solid	7471B	
460-246437-3	116_PE-19-SE	Total/NA	Solid	7471B	
460-246437-4	117_PE-19-SW	Total/NA	Solid	7471B	
460-246437-5	118_PE-19-NW	Total/NA	Solid	7471B	
MB 460-811987/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-811987/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-246205-C-1-F MS	Matrix Spike	Total/NA	Solid	7471B	
460-246205-D-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	7471B	
460-246205-A-1-D DU	Duplicate	Total/NA	Solid	7471B	

Prep Batch: 812001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	3050B	
460-246437-2	115_PE-19-NE	Total/NA	Solid	3050B	
460-246437-3	116_PE-19-SE	Total/NA	Solid	3050B	
460-246437-4	117_PE-19-SW	Total/NA	Solid	3050B	
460-246437-5	118_PE-19-NW	Total/NA	Solid	3050B	
MB 460-812001/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-812001/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-246493-B-1-C MS	Matrix Spike	Total/NA	Solid	3050B	
460-246493-B-1-B DU	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 812039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	7471B	811987
460-246437-2	115_PE-19-NE	Total/NA	Solid	7471B	811987
460-246437-3	116_PE-19-SE	Total/NA	Solid	7471B	811987
460-246437-4	117_PE-19-SW	Total/NA	Solid	7471B	811987
460-246437-5	118_PE-19-NW	Total/NA	Solid	7471B	811987
MB 460-811987/1-A	Method Blank	Total/NA	Solid	7471B	811987
LCSSRM 460-811987/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	811987
460-246205-C-1-F MS	Matrix Spike	Total/NA	Solid	7471B	811987
460-246205-D-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	7471B	811987
460-246205-A-1-D DU	Duplicate	Total/NA	Solid	7471B	811987

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Metals

Analysis Batch: 812063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-812001/1-A	Method Blank	Total/NA	Solid	6020B	812001
LCSSRM 460-812001/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	812001
460-246493-B-1-C MS	Matrix Spike	Total/NA	Solid	6020B	812001
460-246493-B-1-B DU	Duplicate	Total/NA	Solid	6020B	812001

Analysis Batch: 812224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	6020B	812001
460-246437-2	115_PE-19-NE	Total/NA	Solid	6020B	812001
460-246437-3	116_PE-19-SE	Total/NA	Solid	6020B	812001
460-246437-4	117_PE-19-SW	Total/NA	Solid	6020B	812001
460-246437-5	118_PE-19-NW	Total/NA	Solid	6020B	812001

General Chemistry

Analysis Batch: 811473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	Moisture	
460-246437-2	115_PE-19-NE	Total/NA	Solid	Moisture	
460-246437-3	116_PE-19-SE	Total/NA	Solid	Moisture	
460-246437-4	117_PE-19-SW	Total/NA	Solid	Moisture	
460-246437-5	118_PE-19-NW	Total/NA	Solid	Moisture	
460-246475-A-5 DU	Duplicate	Total/NA	Solid	Moisture	

Prep Batch: 811766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	9012B	
460-246437-2	115_PE-19-NE	Total/NA	Solid	9012B	
460-246437-3	116_PE-19-SE	Total/NA	Solid	9012B	
MB 460-811766/2-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-811766/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
MRL 460-811766/1-A	Lab Control Sample	Total/NA	Solid	9012B	
460-246521-F-1-D MS	Matrix Spike	Total/NA	Solid	9012B	
460-246521-F-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	

Prep Batch: 811767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-4	117_PE-19-SW	Total/NA	Solid	9012B	
460-246437-5	118_PE-19-NW	Total/NA	Solid	9012B	
MB 460-811767/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-811767/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-246437-4 MS	117_PE-19-SW	Total/NA	Solid	9012B	
460-246437-4 MSD	117_PE-19-SW	Total/NA	Solid	9012B	

Prep Batch: 811788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	3060A	
460-246437-2	115_PE-19-NE	Total/NA	Solid	3060A	
460-246437-3	116_PE-19-SE	Total/NA	Solid	3060A	
460-246437-4	117_PE-19-SW	Total/NA	Solid	3060A	
460-246437-5	118_PE-19-NW	Total/NA	Solid	3060A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

General Chemistry (Continued)

Prep Batch: 811788 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-811788/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-811788/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-811788/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-246341-G-3-C MSS	Matrix Spike	Total/NA	Solid	3060A	
460-246341-G-3-D MSI	Matrix Spike	Total/NA	Solid	3060A	
460-246341-G-3-B DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 811911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	7196A	811788
460-246437-2	115_PE-19-NE	Total/NA	Solid	7196A	811788
460-246437-3	116_PE-19-SE	Total/NA	Solid	7196A	811788
460-246437-4	117_PE-19-SW	Total/NA	Solid	7196A	811788
460-246437-5	118_PE-19-NW	Total/NA	Solid	7196A	811788
MB 460-811788/1-A	Method Blank	Total/NA	Solid	7196A	811788
LCSI 460-811788/3-A	Lab Control Sample	Total/NA	Solid	7196A	811788
LCSSRM 460-811788/4-A	Lab Control Sample	Total/NA	Solid	7196A	811788
460-246341-G-3-C MSS	Matrix Spike	Total/NA	Solid	7196A	811788
460-246341-G-3-D MSI	Matrix Spike	Total/NA	Solid	7196A	811788
460-246341-G-3-B DU	Duplicate	Total/NA	Solid	7196A	811788

Analysis Batch: 811950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	9012B	811766
460-246437-2	115_PE-19-NE	Total/NA	Solid	9012B	811766
460-246437-3	116_PE-19-SE	Total/NA	Solid	9012B	811766
460-246437-4	117_PE-19-SW	Total/NA	Solid	9012B	811767
460-246437-5	118_PE-19-NW	Total/NA	Solid	9012B	811767
MB 460-811766/2-A	Method Blank	Total/NA	Solid	9012B	811766
MB 460-811767/1-A	Method Blank	Total/NA	Solid	9012B	811767
LCSSRM 460-811766/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	811766
LCSSRM 460-811767/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	811767
MRL 460-811766/1-A	Lab Control Sample	Total/NA	Solid	9012B	811766
460-246437-4 MS	117_PE-19-SW	Total/NA	Solid	9012B	811767
460-246437-4 MSD	117_PE-19-SW	Total/NA	Solid	9012B	811767
460-246521-F-1-D MS	Matrix Spike	Total/NA	Solid	9012B	811766
460-246521-F-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	811766

Analysis Batch: 811980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246437-1	114_PE-19	Total/NA	Solid	7196A	
460-246437-2	115_PE-19-NE	Total/NA	Solid	7196A	
460-246437-3	116_PE-19-SE	Total/NA	Solid	7196A	
460-246437-4	117_PE-19-SW	Total/NA	Solid	7196A	
460-246437-5	118_PE-19-NW	Total/NA	Solid	7196A	

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 114_PE-19

Lab Sample ID: 460-246437-1

Date Collected: 11/02/21 08:15

Matrix: Solid

Date Received: 11/02/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	811980	11/07/21 20:42	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	811473	11/05/21 02:12	MIE	TAL EDI

Client Sample ID: 114_PE-19

Lab Sample ID: 460-246437-1

Date Collected: 11/02/21 08:15

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			811329	11/04/21 09:40	YXG	TAL EDI
Total/NA	Analysis	8260D		1	811625	11/05/21 23:17	AAT	TAL EDI
Total/NA	Prep	3546			811216	11/03/21 22:49	GXY	TAL EDI
Total/NA	Analysis	8270E		1	811275	11/04/21 12:50	MDJ	TAL EDI
Total/NA	Prep	3546			811190	11/03/21 18:24	ARA	TAL EDI
Total/NA	Analysis	8081B		1	811231	11/04/21 08:40	FAM	TAL EDI
Total/NA	Prep	3546			811182	11/03/21 18:08	ARA	TAL EDI
Total/NA	Analysis	8082A		1	811255	11/04/21 12:11	JHP	TAL EDI
Total/NA	Prep	8151A			811220	11/03/21 23:57	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811359	11/04/21 15:50	SAK	TAL EDI
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 17:12	ZG8V	ELLE
Total/NA	Prep	3050B			812001	11/08/21 04:22	GMC	TAL EDI
Total/NA	Analysis	6020B		1	812224	11/09/21 01:02	VAD	TAL EDI
Total/NA	Prep	7471B			811987	11/08/21 02:40	TJS	TAL EDI
Total/NA	Analysis	7471B		1	812039	11/08/21 07:22	TJS	TAL EDI
Total/NA	Prep	3060A			811788	11/06/21 10:53	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811911	11/07/21 12:31	HAO	TAL EDI
Total/NA	Prep	9012B			811766	11/06/21 08:53	VBG	TAL EDI
Total/NA	Analysis	9012B		1	811950	11/07/21 13:21	VBG	TAL EDI

Client Sample ID: 115_PE-19-NE

Lab Sample ID: 460-246437-2

Date Collected: 11/02/21 08:25

Matrix: Solid

Date Received: 11/02/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	811980	11/07/21 20:42	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	811473	11/05/21 02:12	MIE	TAL EDI

Client Sample ID: 115_PE-19-NE

Lab Sample ID: 460-246437-2

Date Collected: 11/02/21 08:25

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			811329	11/04/21 09:40	YXG	TAL EDI
Total/NA	Analysis	8260D		1	811625	11/05/21 23:39	AAT	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 115_PE-19-NE

Lab Sample ID: 460-246437-2

Date Collected: 11/02/21 08:25

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			811216	11/03/21 22:49	GXY	TAL EDI
Total/NA	Analysis	8270E		1	811275	11/04/21 13:24	MDJ	TAL EDI
Total/NA	Prep	3546			811190	11/03/21 18:24	ARA	TAL EDI
Total/NA	Analysis	8081B		1	811231	11/04/21 08:54	FAM	TAL EDI
Total/NA	Prep	3546			811182	11/03/21 18:08	ARA	TAL EDI
Total/NA	Analysis	8082A		1	811255	11/04/21 12:28	JHP	TAL EDI
Total/NA	Prep	8151A			811220	11/03/21 23:57	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811359	11/04/21 16:03	SAK	TAL EDI
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 17:23	ZG8V	ELLE
Total/NA	Prep	3050B			812001	11/08/21 04:22	GMC	TAL EDI
Total/NA	Analysis	6020B		1	812224	11/09/21 01:04	VAD	TAL EDI
Total/NA	Prep	7471B			811987	11/08/21 02:40	TJS	TAL EDI
Total/NA	Analysis	7471B		1	812039	11/08/21 07:24	TJS	TAL EDI
Total/NA	Prep	3060A			811788	11/06/21 10:53	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811911	11/07/21 12:31	HAO	TAL EDI
Total/NA	Prep	9012B			811766	11/06/21 08:53	VBG	TAL EDI
Total/NA	Analysis	9012B		1	811950	11/07/21 13:22	VBG	TAL EDI

Client Sample ID: 116_PE-19-SE

Lab Sample ID: 460-246437-3

Date Collected: 11/02/21 08:35

Matrix: Solid

Date Received: 11/02/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	811980	11/07/21 20:42	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	811473	11/05/21 02:12	MIE	TAL EDI

Client Sample ID: 116_PE-19-SE

Lab Sample ID: 460-246437-3

Date Collected: 11/02/21 08:35

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			811329	11/04/21 09:41	YXG	TAL EDI
Total/NA	Analysis	8260D		1	811625	11/06/21 00:00	AAT	TAL EDI
Total/NA	Prep	3546			811216	11/03/21 22:49	GXY	TAL EDI
Total/NA	Analysis	8270E		1	811275	11/04/21 15:07	MDJ	TAL EDI
Total/NA	Prep	3546			811190	11/03/21 18:24	ARA	TAL EDI
Total/NA	Analysis	8081B		1	811231	11/04/21 09:09	FAM	TAL EDI
Total/NA	Prep	3546			811182	11/03/21 18:08	ARA	TAL EDI
Total/NA	Analysis	8082A		1	811255	11/04/21 12:45	JHP	TAL EDI
Total/NA	Prep	8151A			811220	11/03/21 23:57	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811359	11/04/21 16:17	SAK	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 116_PE-19-SE

Lab Sample ID: 460-246437-3

Date Collected: 11/02/21 08:35

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 17:34	ZG8V	ELLE
Total/NA	Prep	3050B			812001	11/08/21 04:22	GMC	TAL EDI
Total/NA	Analysis	6020B		1	812224	11/09/21 01:07	VAD	TAL EDI
Total/NA	Prep	7471B			811987	11/08/21 02:40	TJS	TAL EDI
Total/NA	Analysis	7471B		1	812039	11/08/21 07:26	TJS	TAL EDI
Total/NA	Prep	3060A			811788	11/06/21 10:53	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811911	11/07/21 12:31	HAO	TAL EDI
Total/NA	Prep	9012B			811766	11/06/21 08:53	VBG	TAL EDI
Total/NA	Analysis	9012B		1	811950	11/07/21 13:23	VBG	TAL EDI

Client Sample ID: 117_PE-19-SW

Lab Sample ID: 460-246437-4

Date Collected: 11/02/21 08:45

Matrix: Solid

Date Received: 11/02/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	811980	11/07/21 20:42	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	811473	11/05/21 02:12	MIE	TAL EDI

Client Sample ID: 117_PE-19-SW

Lab Sample ID: 460-246437-4

Date Collected: 11/02/21 08:45

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			811329	11/04/21 09:42	YXG	TAL EDI
Total/NA	Analysis	8260D		1	811625	11/06/21 00:22	AAT	TAL EDI
Total/NA	Prep	3546			811216	11/03/21 22:49	GXY	TAL EDI
Total/NA	Analysis	8270E		1	811287	11/04/21 18:31	MDJ	TAL EDI
Total/NA	Prep	3546			811190	11/03/21 18:24	ARA	TAL EDI
Total/NA	Analysis	8081B		1	811231	11/04/21 09:24	FAM	TAL EDI
Total/NA	Prep	3546			811182	11/03/21 18:08	ARA	TAL EDI
Total/NA	Analysis	8082A		1	811255	11/04/21 13:02	JHP	TAL EDI
Total/NA	Prep	8151A			811220	11/03/21 23:57	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811359	11/04/21 16:30	SAK	TAL EDI
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 17:45	ZG8V	ELLE
Total/NA	Prep	3050B			812001	11/08/21 04:22	GMC	TAL EDI
Total/NA	Analysis	6020B		1	812224	11/09/21 01:09	VAD	TAL EDI
Total/NA	Prep	7471B			811987	11/08/21 02:40	TJS	TAL EDI
Total/NA	Analysis	7471B		1	812039	11/08/21 07:28	TJS	TAL EDI
Total/NA	Prep	3060A			811788	11/06/21 10:53	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811911	11/07/21 12:31	HAO	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Client Sample ID: 117_PE-19-SW

Lab Sample ID: 460-246437-4

Date Collected: 11/02/21 08:45

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			811767	11/06/21 08:58	VBG	TAL EDI
Total/NA	Analysis	9012B		1	811950	11/07/21 13:25	VBG	TAL EDI

Client Sample ID: 118_PE-19-NW

Lab Sample ID: 460-246437-5

Date Collected: 11/02/21 08:55

Matrix: Solid

Date Received: 11/02/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	811980	11/07/21 20:42	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	811473	11/05/21 02:12	MIE	TAL EDI

Client Sample ID: 118_PE-19-NW

Lab Sample ID: 460-246437-5

Date Collected: 11/02/21 08:55

Matrix: Solid

Date Received: 11/02/21 17:00

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			811329	11/04/21 09:43	YXG	TAL EDI
Total/NA	Analysis	8260D		1	811625	11/06/21 00:44	AAT	TAL EDI
Total/NA	Prep	3546			811216	11/03/21 22:49	GXY	TAL EDI
Total/NA	Analysis	8270E		1	811275	11/04/21 15:24	MDJ	TAL EDI
Total/NA	Prep	3546			811190	11/03/21 18:24	ARA	TAL EDI
Total/NA	Analysis	8081B		1	811231	11/04/21 09:38	FAM	TAL EDI
Total/NA	Prep	3546			811182	11/03/21 18:08	ARA	TAL EDI
Total/NA	Analysis	8082A		1	811255	11/04/21 13:20	JHP	TAL EDI
Total/NA	Prep	8151A			811220	11/03/21 23:57	AFR	TAL EDI
Total/NA	Analysis	8151A		1	811359	11/04/21 16:44	SAK	TAL EDI
Total/NA	Prep	SHAKE			191052	11/04/21 18:39	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			191097	11/04/21 21:02	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	191576	11/06/21 17:56	ZG8V	ELLE
Total/NA	Prep	3050B			812001	11/08/21 04:22	GMC	TAL EDI
Total/NA	Analysis	6020B		1	812224	11/09/21 01:13	VAD	TAL EDI
Total/NA	Prep	7471B			811987	11/08/21 02:40	TJS	TAL EDI
Total/NA	Analysis	7471B		5	812039	11/08/21 09:34	TJS	TAL EDI
Total/NA	Prep	3060A			811788	11/06/21 10:53	OXG	TAL EDI
Total/NA	Analysis	7196A		1	811911	11/07/21 12:31	HAO	TAL EDI
Total/NA	Prep	9012B			811767	11/06/21 08:58	VBG	TAL EDI
Total/NA	Analysis	9012B		1	811950	11/07/21 13:31	VBG	TAL EDI

Client Sample ID: 119_TB-8

Lab Sample ID: 460-246437-6

Date Collected: 11/02/21 00:00

Matrix: Water

Date Received: 11/02/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	811281	11/04/21 14:40	EMM	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	12-09-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-10-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	11-08-21
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-10-22
Minnesota	NELAP	042-999-487	01-05-22
Missouri	State	450	11-09-21
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	11-10-21
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-10-22
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-31-22
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	11-14-21
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	12-20-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-246437-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-246437-1	114_PE-19	Solid	11/02/21 08:15	11/02/21 17:00
460-246437-2	115_PE-19-NE	Solid	11/02/21 08:25	11/02/21 17:00
460-246437-3	116_PE-19-SE	Solid	11/02/21 08:35	11/02/21 17:00
460-246437-4	117_PE-19-SW	Solid	11/02/21 08:45	11/02/21 17:00
460-246437-5	118_PE-19-NW	Solid	11/02/21 08:55	11/02/21 17:00
460-246437-6	119_TB-8	Water	11/02/21 00:00	11/02/21 17:00

Receipt Temperature and pH Log

Page 7 of 7

Job Number:

246487

Number of Coolers:

IR Gun #:

Q

Cooler Temperatures

	RAN	CORRECTION		CONTROL	PAN	COMPARISON
Cooler #1:	37°C	32°C				
Cooler #2:		°C		Cooler #4 °C	Cooler #7 °C	°C
Cooler #3:	°C	°C		Cooler #5 °C	Cooler #8 °C	°C
				Cooler #6 °C	Cooler #9 °C	°C

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted:

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials:

friend

Date:

eurolins : Environment Testing
America

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-246437-1

Login Number: 246437

List Number: 1

Creator: Lysy, Susan

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-246437-1

Login Number: 246437

List Number: 2

Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 11/03/21 10:31 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-246853-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

3/4/2022 4:43:56 PM

Grace Chang, Project Manager II
(732)593-2579

Grace.Chang@Eurofinset.com

Designee for

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Grace Chang
Project Manager II
3/4/2022 4:43:56 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	10
Client Sample Results	13
Surrogate Summary	34
Isotope Dilution Summary	37
QC Sample Results	39
QC Association Summary	74
Lab Chronicle	81
Certification Summary	86
Method Summary	88
Sample Summary	89
Chain of Custody	90
Receipt Checklists	93



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	Surrogate is outside acceptance limits.
*	Duplicate RPD exceeds control limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Job ID: 460-246853-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-246853-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 11/08/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.7 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 11/10/2021 and analyzed on 11/11/2021.

Several analytes failed the recovery criteria low for the MS of sample 120_PE-1MS (460-246853-1) in batch 460-812674.

Several analytes failed the recovery criteria low for the MSD of sample 120_PE-1MSD (460-246853-1) in batch 460-812674. Several analytes exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 125_TB-9 (460-246853-6) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 11/10/2021.

No difficulties were encountered during the Volatiles analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Job ID: 460-246853-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 11/11/2021 and analyzed on 11/11/2021 and 11/12/2021.

2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl, 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for 124_PE-1-NW (460-246853-5). Refer to the QC report for details.

Samples 124_PE-1-NW (460-246853-5)[5X] and 124_PE-1-NW (460-246853-5)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 11/10/2021 and 11/11/2021 and analyzed on 11/11/2021 and 11/12/2021.

Several analytes exceeded the RPD limit for the MSD of sample 120_PE-1MSD (460-246853-1) in batch 460-812850.

Refer to the QC report for details.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 11/10/2021 and analyzed on 11/11/2021.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 11/10/2021 and analyzed on 11/11/2021.

2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria high for 121_PE-1-NE (460-246853-2). 2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria high for 124_PE-1-NW (460-246853-5). 2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria high for 120_PE-1MS (460-246853-1MS). 2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria high for 120_PE-1MSD (460-246853-1MSD). Refer to the QC report for details.

Silvex (2,4,5-TP) failed the recovery criteria high for the MS of sample 120_PE-1MS (460-246853-1) in batch 460-812653.

Silvex (2,4,5-TP) failed the recovery criteria high for the MSD of sample 120_PE-1MSD (460-246853-1) in batch 460-812653.

Refer to the QC report for details.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Job ID: 460-246853-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 11/11/2021 and analyzed on 11/14/2021.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 11/14/2021 and analyzed on 11/18/2021.

Manganese failed the recovery criteria high for the MS of sample 120_PE-1MS (460-246853-1) in batch 460-814065.

Refer to the QC report for details.

Samples 120_PE-1 (460-246853-1)[2X], 121_PE-1-NE (460-246853-2)[2X], 122_PE-1-SE (460-246853-3)[2X], 123_PE-1-SW (460-246853-4)[2X] and 124_PE-1-NW (460-246853-5)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 11/12/2021 and analyzed on 11/14/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 11/18/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 11/12/2021.

No difficulties were encountered during the cr3 analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Job ID: 460-246853-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 11/13/2021 and analyzed on 11/15/2021.

Cyanide, Total failed the recovery criteria high for the MS of sample 120_PE-1MS (460-246853-1) in batch 460-813454.

Cyanide, Total failed the recovery criteria high for the MSD of sample 120_PE-1MSD (460-246853-1) in batch 460-813454.

Cyanide, Total failed the recovery criteria high for the MSD of sample 120_PE-1MSD (460-246853-1) in batch 460-813454.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 120_PE-1 (460-246853-1), 121_PE-1-NE (460-246853-2), 122_PE-1-SE (460-246853-3), 123_PE-1-SW (460-246853-4) and 124_PE-1-NW (460-246853-5) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 11/11/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 120_PE-1

Lab Sample ID: 460-246853-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	2.8		1.9	1.1	ug/Kg	1	✱	8260D	Total/NA
Phenanthrene	23	J	370	6.5	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	66	J	370	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	64	J	370	9.2	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	45		37	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	38	J	370	6.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	54		37	9.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	16	J	37	7.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	41		37	9.9	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	32	J	37	14	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	29	J	370	11	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanoic acid	0.30	J	0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.32	J	0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	0.91	J	1.1	0.12	mg/Kg	2	✱	6020B	Total/NA
Barium	8.8		2.2	0.16	mg/Kg	2	✱	6020B	Total/NA
Beryllium	0.19	J	0.45	0.064	mg/Kg	2	✱	6020B	Total/NA
Chromium	7.2		2.2	0.30	mg/Kg	2	✱	6020B	Total/NA
Copper	4.7		2.2	0.41	mg/Kg	2	✱	6020B	Total/NA
Manganese	122		4.5	0.45	mg/Kg	2	✱	6020B	Total/NA
Nickel	6.6		2.2	0.53	mg/Kg	2	✱	6020B	Total/NA
Lead	3.2		0.67	0.22	mg/Kg	2	✱	6020B	Total/NA
Zinc	16.2		8.9	3.4	mg/Kg	2	✱	6020B	Total/NA
Cr (III)	7.2		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 121_PE-1-NE

Lab Sample ID: 460-246853-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.86	J	0.93	0.53	ug/Kg	1	✱	8260D	Total/NA
Perfluorooctanoic acid	0.26	J	0.67	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.51	J	0.67	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	2.2		1.1	0.11	mg/Kg	2	✱	6020B	Total/NA
Barium	55.4		2.2	0.16	mg/Kg	2	✱	6020B	Total/NA
Beryllium	0.35	J	0.45	0.063	mg/Kg	2	✱	6020B	Total/NA
Cadmium	0.35	J	1.1	0.13	mg/Kg	2	✱	6020B	Total/NA
Chromium	16.4		2.2	0.30	mg/Kg	2	✱	6020B	Total/NA
Copper	29.1		2.2	0.41	mg/Kg	2	✱	6020B	Total/NA
Manganese	258		4.5	0.45	mg/Kg	2	✱	6020B	Total/NA
Nickel	11.8		2.2	0.52	mg/Kg	2	✱	6020B	Total/NA
Lead	116		0.67	0.22	mg/Kg	2	✱	6020B	Total/NA
Selenium	0.15	J	1.4	0.14	mg/Kg	2	✱	6020B	Total/NA
Zinc	108		8.9	3.4	mg/Kg	2	✱	6020B	Total/NA
Mercury	0.019		0.019	0.0089	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	16.4		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 122_PE-1-SE

Lab Sample ID: 460-246853-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	0.55	J	0.65	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.28	J	0.65	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.4		1.0	0.11	mg/Kg	2	✱	6020B	Total/NA
Barium	26.5		2.1	0.15	mg/Kg	2	✱	6020B	Total/NA
Beryllium	0.27	J	0.42	0.059	mg/Kg	2	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 122_PE-1-SE (Continued)

Lab Sample ID: 460-246853-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	8.6		2.1	0.28	mg/Kg	2	✱	6020B	Total/NA
Copper	5.5		2.1	0.38	mg/Kg	2	✱	6020B	Total/NA
Manganese	230		4.2	0.42	mg/Kg	2	✱	6020B	Total/NA
Nickel	9.1		2.1	0.49	mg/Kg	2	✱	6020B	Total/NA
Lead	19.8		0.62	0.21	mg/Kg	2	✱	6020B	Total/NA
Zinc	25.5		8.3	3.2	mg/Kg	2	✱	6020B	Total/NA
Mercury	0.022		0.019	0.0087	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	8.6		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 123_PE-1-SW

Lab Sample ID: 460-246853-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.1		0.93	0.23	ug/Kg	1	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	1.1		0.93	0.29	ug/Kg	1	✱	8260D	Total/NA
Benzene	1.2		0.93	0.24	ug/Kg	1	✱	8260D	Total/NA
Ethylbenzene	0.36	J	0.93	0.19	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	1.4	J	1.9	1.1	ug/Kg	1	✱	8260D	Total/NA
Toluene	1.3		0.93	0.22	ug/Kg	1	✱	8260D	Total/NA
Xylenes, Total	2.3		1.9	0.60	ug/Kg	1	✱	8260D	Total/NA
Phenanthrene	27	J	370	6.5	ug/Kg	1	✱	8270E	Total/NA
Anthracene	20	J	370	11	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	150	J	370	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	230	J	370	9.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	120		37	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	230	J	370	6.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	500		37	9.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	180		37	7.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	200		37	9.9	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	160		37	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	34	J	37	16	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	130	J	370	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDE	5.3	J	7.5	0.89	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	5.2	J	7.5	1.4	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.84		0.66	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.8		1.1	0.11	mg/Kg	2	✱	6020B	Total/NA
Barium	32.3		2.1	0.15	mg/Kg	2	✱	6020B	Total/NA
Beryllium	0.36	J	0.42	0.061	mg/Kg	2	✱	6020B	Total/NA
Chromium	9.0		2.1	0.28	mg/Kg	2	✱	6020B	Total/NA
Copper	7.4		2.1	0.39	mg/Kg	2	✱	6020B	Total/NA
Manganese	250		4.2	0.43	mg/Kg	2	✱	6020B	Total/NA
Nickel	7.9		2.1	0.50	mg/Kg	2	✱	6020B	Total/NA
Lead	11.5		0.64	0.21	mg/Kg	2	✱	6020B	Total/NA
Zinc	25.1		8.5	3.2	mg/Kg	2	✱	6020B	Total/NA
Mercury	0.045		0.019	0.0087	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	9.0		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 124_PE-1-NW

Lab Sample ID: 460-246853-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylphenol	120	J	360	13	ug/Kg	1	✱	8270E	Total/NA
3 & 4 Methylphenol	350	J	360	22	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	43000		18000	310	ug/Kg	50	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 124_PE-1-NW (Continued)

Lab Sample ID: 460-246853-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	10000		1800	18	ug/Kg	5	✱	8270E	Total/NA
Acenaphthene	14000		1800	51	ug/Kg	5	✱	8270E	Total/NA
Dibenzofuran	23000		1800	25	ug/Kg	5	✱	8270E	Total/NA
Fluorene	37000		1800	24	ug/Kg	5	✱	8270E	Total/NA
Phenanthrene	220000		18000	310	ug/Kg	50	✱	8270E	Total/NA
Anthracene	23000		1800	54	ug/Kg	5	✱	8270E	Total/NA
Fluoranthene	140000		18000	620	ug/Kg	50	✱	8270E	Total/NA
Pyrene	120000		18000	440	ug/Kg	50	✱	8270E	Total/NA
Benzo[a]anthracene	48000		1800	620	ug/Kg	50	✱	8270E	Total/NA
Chrysene	60000		18000	300	ug/Kg	50	✱	8270E	Total/NA
Benzo[b]fluoranthene	56000		1800	460	ug/Kg	50	✱	8270E	Total/NA
Benzo[k]fluoranthene	24000		180	35	ug/Kg	5	✱	8270E	Total/NA
Benzo[a]pyrene	41000		1800	480	ug/Kg	50	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	23000		180	70	ug/Kg	5	✱	8270E	Total/NA
Dibenz(a,h)anthracene	7800		36	15	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	18000		1800	53	ug/Kg	5	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	1.54		0.63	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	2.3		1.0	0.10	mg/Kg	2	✱	6020B	Total/NA
Barium	29.5		2.0	0.15	mg/Kg	2	✱	6020B	Total/NA
Beryllium	0.29	J	0.40	0.057	mg/Kg	2	✱	6020B	Total/NA
Cadmium	0.22	J	1.0	0.11	mg/Kg	2	✱	6020B	Total/NA
Chromium	8.8		2.0	0.27	mg/Kg	2	✱	6020B	Total/NA
Copper	9.8		2.0	0.37	mg/Kg	2	✱	6020B	Total/NA
Manganese	237		4.0	0.40	mg/Kg	2	✱	6020B	Total/NA
Nickel	10.2		2.0	0.47	mg/Kg	2	✱	6020B	Total/NA
Lead	14.4		0.60	0.20	mg/Kg	2	✱	6020B	Total/NA
Zinc	38.9		8.0	3.1	mg/Kg	2	✱	6020B	Total/NA
Mercury	0.042		0.017	0.0082	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	8.8		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 125_TB-9

Lab Sample ID: 460-246853-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 120_PE-1

Lab Sample ID: 460-246853-1

Date Collected: 11/08/21 10:15

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 89.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.94	U	0.94	0.22	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,1-Dichloroethane	0.94	U	0.94	0.19	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,1-Dichloroethene	0.94	U	0.94	0.21	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,2,4-Trimethylbenzene	0.94	U	0.94	0.23	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,2-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,2-Dichloroethane	0.94	U	0.94	0.28	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,3,5-Trimethylbenzene	0.94	U	0.94	0.30	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,3-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,4-Dichlorobenzene	0.94	U	0.94	0.21	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
1,4-Dioxane	19	U	19	8.6	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
2-Butanone (MEK)	4.7	U	4.7	0.35	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Acetone	5.6	U	5.6	5.4	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Benzene	0.94	U	0.94	0.24	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Carbon tetrachloride	0.94	U	0.94	0.36	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Chlorobenzene	0.94	U	0.94	0.17	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Chloroform	0.94	U	0.94	0.91	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
cis-1,2-Dichloroethene	0.94	U	0.94	0.34	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Ethylbenzene	0.94	U	0.94	0.19	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Methyl tert-butyl ether	0.94	U	0.94	0.48	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Methylene Chloride	2.8		1.9	1.1	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
n-Butylbenzene	0.94	U	0.94	0.28	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
N-Propylbenzene	0.94	U	0.94	0.16	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
sec-Butylbenzene	0.94	U	0.94	0.27	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
tert-Butylbenzene	0.94	U	0.94	0.26	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Tetrachloroethene	0.94	U	0.94	0.29	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Toluene	0.94	U	0.94	0.22	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
trans-1,2-Dichloroethene	0.94	U	0.94	0.23	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Trichloroethene	0.94	U	0.94	0.30	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Vinyl chloride	0.94	U	0.94	0.51	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1
Xylenes, Total	1.9	U	1.9	0.60	ug/Kg	✱	11/10/21 09:56	11/11/21 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 145	11/10/21 09:56	11/11/21 18:31	1
4-Bromofluorobenzene	87		70 - 139	11/10/21 09:56	11/11/21 18:31	1
Dibromofluoromethane (Surr)	105		48 - 150	11/10/21 09:56	11/11/21 18:31	1
Toluene-d8 (Surr)	88		80 - 120	11/10/21 09:56	11/11/21 18:31	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	370	U	370	14	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
2-Methylphenol	370	U	370	14	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
3 & 4 Methylphenol	370	U	370	23	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Pentachlorophenol	300	U	300	76	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Naphthalene	370	U	370	6.4	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Acenaphthylene	370	U	370	3.7	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Acenaphthene	370	U	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Dibenzofuran	370	U	370	5.2	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Fluorene	370	U	370	5.0	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Hexachlorobenzene	37	U	37	18	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Phenanthrene	23	J	370	6.5	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 120_PE-1

Lab Sample ID: 460-246853-1

Date Collected: 11/08/21 10:15

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 89.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	370	U	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Fluoranthene	66	J	370	13	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Pyrene	64	J	370	9.2	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Benzo[a]anthracene	45		37	13	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Chrysene	38	J	370	6.3	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Benzo[b]fluoranthene	54		37	9.6	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Benzo[k]fluoranthene	16	J	37	7.3	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Benzo[a]pyrene	41		37	9.9	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Indeno[1,2,3-cd]pyrene	32	J	37	14	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Dibenz(a,h)anthracene	37	U	37	16	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
Benzo[g,h,i]perylene	29	J	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1
1,4-Dioxane	37	U	37	32	ug/Kg	✱	11/11/21 00:28	11/11/21 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	73		11 - 104	11/11/21 00:28	11/11/21 14:37	1
Phenol-d5 (Surr)	77		15 - 100	11/11/21 00:28	11/11/21 14:37	1
Terphenyl-d14 (Surr)	85		12 - 126	11/11/21 00:28	11/11/21 14:37	1
2,4,6-Tribromophenol (Surr)	95		10 - 123	11/11/21 00:28	11/11/21 14:37	1
2-Fluorophenol (Surr)	82		10 - 105	11/11/21 00:28	11/11/21 14:37	1
2-Fluorobiphenyl	87		14 - 103	11/11/21 00:28	11/11/21 14:37	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.5	U	7.5	1.3	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
4,4'-DDE	7.5	U	7.5	0.88	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
4,4'-DDT	7.5	U	7.5	1.4	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Aldrin	7.5	U	7.5	1.1	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
alpha-BHC	2.2	U	2.2	0.76	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
beta-BHC	2.2	U	2.2	0.84	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Chlordane (technical)	75	U	75	18	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
delta-BHC	2.2	U	2.2	0.46	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Dieldrin	2.2	U	2.2	0.97	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Endosulfan I	7.5	U	7.5	1.1	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Endosulfan II	7.5	U	7.5	1.9	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Endosulfan sulfate	7.5	U	7.5	0.94	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Endrin	7.5	U	7.5	1.1	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Endrin aldehyde	7.5	U	7.5	1.8	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Endrin ketone	7.5	U	7.5	1.5	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
gamma-BHC (Lindane)	2.2	U	2.2	0.69	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Heptachlor	7.5	U	7.5	0.88	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Heptachlor epoxide	7.5	U	7.5	1.1	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Methoxychlor	7.5	U	7.5	1.7	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
Toxaphene	75	U	75	27	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1
cis-Chlordane	7.5	U	7.5	1.2	ug/Kg	✱	11/11/21 18:09	11/12/21 05:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		10 - 150	11/11/21 18:09	11/12/21 05:37	1
DCB Decachlorobiphenyl	98		10 - 150	11/11/21 18:09	11/12/21 05:37	1
Tetrachloro-m-xylene	80		10 - 133	11/11/21 18:09	11/12/21 05:37	1
Tetrachloro-m-xylene	82		10 - 133	11/11/21 18:09	11/12/21 05:37	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 120_PE-1

Lab Sample ID: 460-246853-1

Date Collected: 11/08/21 10:15

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 89.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Aroclor 1221	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Aroclor 1232	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Aroclor 1242	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Aroclor 1248	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Aroclor 1254	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Aroclor 1260	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Aroclor-1262	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Aroclor 1268	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1
Polychlorinated biphenyls, Total	75	U	75	20	ug/Kg	✱	11/10/21 17:12	11/11/21 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		37 - 150	11/10/21 17:12	11/11/21 11:45	1
DCB Decachlorobiphenyl	99		37 - 150	11/10/21 17:12	11/11/21 11:45	1
Tetrachloro-m-xylene	85		54 - 150	11/10/21 17:12	11/11/21 11:45	1
Tetrachloro-m-xylene	87		54 - 150	11/10/21 17:12	11/11/21 11:45	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	37	U	37	3.9	ug/Kg	✱	11/10/21 23:59	11/11/21 12:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	111		65 - 150	11/10/21 23:59	11/11/21 12:01	1
2,4-Dichlorophenylacetic acid	143		65 - 150	11/10/21 23:59	11/11/21 12:01	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluoroheptanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorooctanoic acid	0.30	J	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorononanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorodecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorotridecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorotetradecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorobutanesulfonic acid	2.13	U	2.13	0.43	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorohexanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorooctanesulfonic acid	0.32	J	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
NEtFOSAA	2.13	U	2.13	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
NMeFOSAA	2.13	U	2.13	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluoroheptanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorodecanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorooctanesulfonamide	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorobutanoic acid	2.13	U	2.13	0.85	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluoroundecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluorododecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
6:2 Fluorotelomer sulfonic acid	2.13	U	2.13	0.64	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
8:2 Fluorotelomer sulfonic acid	3.19	U	3.19	0.64	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1
Perfluoropentanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 00:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	119		10 - 178	11/11/21 17:15	11/14/21 00:51	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 120_PE-1

Lab Sample ID: 460-246853-1

Date Collected: 11/08/21 10:15

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 89.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	100		10 - 182	11/11/21 17:15	11/14/21 00:51	1
13C5 PFHxA	121		11 - 138	11/11/21 17:15	11/14/21 00:51	1
13C4 PFHpA	128		15 - 139	11/11/21 17:15	11/14/21 00:51	1
13C8 PFOA	119		21 - 133	11/11/21 17:15	11/14/21 00:51	1
13C9 PFNA	126		15 - 145	11/11/21 17:15	11/14/21 00:51	1
13C6 PFDA	125		21 - 134	11/11/21 17:15	11/14/21 00:51	1
13C7 PFUnA	114		15 - 138	11/11/21 17:15	11/14/21 00:51	1
13C2-PFDoDA	110		28 - 126	11/11/21 17:15	11/14/21 00:51	1
13C2 PFTeDA	118		10 - 138	11/11/21 17:15	11/14/21 00:51	1
13C3 PFBS	107		23 - 130	11/11/21 17:15	11/14/21 00:51	1
13C3 PFHxS	113		24 - 136	11/11/21 17:15	11/14/21 00:51	1
13C8 PFOS	112		31 - 130	11/11/21 17:15	11/14/21 00:51	1
d3-NMeFOSAA	80		10 - 172	11/11/21 17:15	11/14/21 00:51	1
d5-NEtFOSAA	93		10 - 176	11/11/21 17:15	11/14/21 00:51	1
13C8 FOSA	106		25 - 135	11/11/21 17:15	11/14/21 00:51	1
13C4 PFBA	111		12 - 137	11/11/21 17:15	11/14/21 00:51	1
13C5 PFPeA	115		12 - 135	11/11/21 17:15	11/14/21 00:51	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.10	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Arsenic	0.91	J	1.1	0.12	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Barium	8.8		2.2	0.16	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Beryllium	0.19	J	0.45	0.064	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Chromium	7.2		2.2	0.30	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Copper	4.7		2.2	0.41	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Manganese	122		4.5	0.45	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Nickel	6.6		2.2	0.53	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Lead	3.2		0.67	0.22	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Selenium	1.4	U	1.4	0.14	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2
Zinc	16.2		8.9	3.4	mg/Kg	✱	11/14/21 06:55	11/18/21 11:29	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	U	0.018	0.0083	mg/Kg	✱	11/18/21 03:54	11/18/21 08:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	7.2		2.0	2.0	mg/Kg			11/12/21 06:03	1
Cr (VI)	2.2	U	2.2	0.95	mg/Kg	✱	11/12/21 14:41	11/14/21 12:44	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	11/13/21 00:13	11/15/21 23:33	1
Percent Moisture	10.6		1.0	1.0	%			11/11/21 23:40	1
Percent Solids	89.4		1.0	1.0	%			11/11/21 23:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 121_PE-1-NE

Lab Sample ID: 460-246853-2

Date Collected: 11/08/21 10:30

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.47	U	0.47	0.11	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,1-Dichloroethane	0.47	U	0.47	0.096	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,1-Dichloroethene	0.47	U	0.47	0.10	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,2,4-Trimethylbenzene	0.47	U	0.47	0.11	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,2-Dichlorobenzene	0.47	U	0.47	0.17	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,2-Dichloroethane	0.47	U	0.47	0.14	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,3,5-Trimethylbenzene	0.47	U	0.47	0.15	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,3-Dichlorobenzene	0.47	U	0.47	0.17	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,4-Dichlorobenzene	0.47	U	0.47	0.10	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
1,4-Dioxane	9.3	U	9.3	4.3	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
2-Butanone (MEK)	2.3	U	2.3	0.17	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Acetone	2.8	U	2.8	2.7	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Benzene	0.47	U	0.47	0.12	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Carbon tetrachloride	0.47	U	0.47	0.18	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Chlorobenzene	0.47	U	0.47	0.082	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Chloroform	0.47	U	0.47	0.45	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
cis-1,2-Dichloroethene	0.47	U	0.47	0.17	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Ethylbenzene	0.47	U	0.47	0.093	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Methyl tert-butyl ether	0.47	U	0.47	0.24	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Methylene Chloride	0.86	J	0.93	0.53	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
n-Butylbenzene	0.47	U	0.47	0.14	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
N-Propylbenzene	0.47	U	0.47	0.081	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
sec-Butylbenzene	0.47	U	0.47	0.13	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
tert-Butylbenzene	0.47	U	0.47	0.13	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Tetrachloroethene	0.47	U	0.47	0.14	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Toluene	0.47	U	0.47	0.11	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
trans-1,2-Dichloroethene	0.47	U	0.47	0.11	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Trichloroethene	0.47	U	0.47	0.15	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Vinyl chloride	0.47	U	0.47	0.25	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1
Xylenes, Total	0.93	U	0.93	0.30	ug/Kg	✱	11/10/21 09:58	11/11/21 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 145	11/10/21 09:58	11/11/21 19:15	1
4-Bromofluorobenzene	92		70 - 139	11/10/21 09:58	11/11/21 19:15	1
Dibromofluoromethane (Surr)	107		48 - 150	11/10/21 09:58	11/11/21 19:15	1
Toluene-d8 (Surr)	89		80 - 120	11/10/21 09:58	11/11/21 19:15	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	370	U	370	14	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
2-Methylphenol	370	U	370	14	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
3 & 4 Methylphenol	370	U	370	23	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Pentachlorophenol	300	U	300	77	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Naphthalene	370	U	370	6.5	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Acenaphthylene	370	U	370	3.8	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Acenaphthene	370	U	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Dibenzofuran	370	U	370	5.3	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Fluorene	370	U	370	5.1	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Hexachlorobenzene	37	U	37	18	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Phenanthrene	370	U	370	6.6	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 121_PE-1-NE

Lab Sample ID: 460-246853-2

Date Collected: 11/08/21 10:30

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	370	U	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Fluoranthene	370	U	370	13	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Pyrene	370	U	370	9.3	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Benzo[a]anthracene	37	U	37	13	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Chrysene	370	U	370	6.3	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Benzo[b]fluoranthene	37	U	37	9.7	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Benzo[k]fluoranthene	37	U	37	7.4	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Benzo[a]pyrene	37	U	37	10	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Indeno[1,2,3-cd]pyrene	37	U	37	15	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Dibenz(a,h)anthracene	37	U	37	16	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
Benzo[g,h,i]perylene	370	U	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1
1,4-Dioxane	37	U	37	33	ug/Kg	✱	11/11/21 00:28	11/11/21 11:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	75		11 - 104	11/11/21 00:28	11/11/21 11:07	1
Phenol-d5 (Surr)	78		15 - 100	11/11/21 00:28	11/11/21 11:07	1
Terphenyl-d14 (Surr)	86		12 - 126	11/11/21 00:28	11/11/21 11:07	1
2,4,6-Tribromophenol (Surr)	97		10 - 123	11/11/21 00:28	11/11/21 11:07	1
2-Fluorophenol (Surr)	81		10 - 105	11/11/21 00:28	11/11/21 11:07	1
2-Fluorobiphenyl	86		14 - 103	11/11/21 00:28	11/11/21 11:07	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.6	U	7.6	1.3	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
4,4'-DDE	7.6	U	7.6	0.90	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
4,4'-DDT	7.6	U	7.6	1.4	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Aldrin	7.6	U	7.6	1.1	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
alpha-BHC	2.3	U	2.3	0.77	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
beta-BHC	2.3	U	2.3	0.85	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Chlordane (technical)	76	U	76	18	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Dieldrin	2.3	U	2.3	0.99	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Endosulfan I	7.6	U	7.6	1.2	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Endosulfan II	7.6	U	7.6	2.0	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Endosulfan sulfate	7.6	U	7.6	0.95	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Endrin	7.6	U	7.6	1.1	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Endrin aldehyde	7.6	U	7.6	1.8	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Endrin ketone	7.6	U	7.6	1.5	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
gamma-BHC (Lindane)	2.3	U	2.3	0.70	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Heptachlor	7.6	U	7.6	0.90	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Heptachlor epoxide	7.6	U	7.6	1.1	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Methoxychlor	7.6	U	7.6	1.7	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
Toxaphene	76	U	76	27	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1
cis-Chlordane	7.6	U	7.6	1.2	ug/Kg	✱	11/10/21 17:15	11/11/21 13:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		10 - 150	11/10/21 17:15	11/11/21 13:12	1
DCB Decachlorobiphenyl	71		10 - 150	11/10/21 17:15	11/11/21 13:12	1
Tetrachloro-m-xylene	76		10 - 133	11/10/21 17:15	11/11/21 13:12	1
Tetrachloro-m-xylene	75		10 - 133	11/10/21 17:15	11/11/21 13:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 121_PE-1-NE

Lab Sample ID: 460-246853-2

Date Collected: 11/08/21 10:30

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Aroclor 1221	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Aroclor 1232	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Aroclor 1242	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Aroclor 1248	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Aroclor 1254	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Aroclor 1260	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Aroclor-1262	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Aroclor 1268	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1
Polychlorinated biphenyls, Total	76	U	76	20	ug/Kg	✱	11/10/21 17:07	11/11/21 11:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		37 - 150	11/10/21 17:07	11/11/21 11:58	1
DCB Decachlorobiphenyl	103		37 - 150	11/10/21 17:07	11/11/21 11:58	1
Tetrachloro-m-xylene	92		54 - 150	11/10/21 17:07	11/11/21 11:58	1
Tetrachloro-m-xylene	90		54 - 150	11/10/21 17:07	11/11/21 11:58	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	3.9	ug/Kg	✱	11/10/21 23:59	11/11/21 12:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	189	*	65 - 150	11/10/21 23:59	11/11/21 12:16	1
2,4-Dichlorophenylacetic acid	231	*	65 - 150	11/10/21 23:59	11/11/21 12:16	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorooctanoic acid	0.26	J	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorobutanesulfonic acid	2.25	U	2.25	0.45	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorooctanesulfonic acid	0.51	J	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
NEtFOSAA	2.25	U	2.25	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
NMeFOSAA	2.25	U	2.25	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorobutanoic acid	2.25	U	2.25	0.90	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
6:2 Fluorotelomer sulfonic acid	2.25	U	2.25	0.67	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
8:2 Fluorotelomer sulfonic acid	3.37	U	3.37	0.67	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:25	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	120		10 - 178	11/11/21 17:15	11/14/21 01:25	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 121_PE-1-NE

Lab Sample ID: 460-246853-2

Date Collected: 11/08/21 10:30

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	93		10 - 182	11/11/21 17:15	11/14/21 01:25	1
13C5 PFHxA	120		11 - 138	11/11/21 17:15	11/14/21 01:25	1
13C4 PFHpA	120		15 - 139	11/11/21 17:15	11/14/21 01:25	1
13C8 PFOA	126		21 - 133	11/11/21 17:15	11/14/21 01:25	1
13C9 PFNA	137		15 - 145	11/11/21 17:15	11/14/21 01:25	1
13C6 PFDA	117		21 - 134	11/11/21 17:15	11/14/21 01:25	1
13C7 PFUnA	107		15 - 138	11/11/21 17:15	11/14/21 01:25	1
13C2-PFDoDA	110		28 - 126	11/11/21 17:15	11/14/21 01:25	1
13C2 PFTeDA	115		10 - 138	11/11/21 17:15	11/14/21 01:25	1
13C3 PFBS	109		23 - 130	11/11/21 17:15	11/14/21 01:25	1
13C3 PFHxS	110		24 - 136	11/11/21 17:15	11/14/21 01:25	1
13C8 PFOS	121		31 - 130	11/11/21 17:15	11/14/21 01:25	1
d3-NMeFOSAA	69		10 - 172	11/11/21 17:15	11/14/21 01:25	1
d5-NEtFOSAA	81		10 - 176	11/11/21 17:15	11/14/21 01:25	1
13C8 FOSA	109		25 - 135	11/11/21 17:15	11/14/21 01:25	1
13C4 PFBA	116		12 - 137	11/11/21 17:15	11/14/21 01:25	1
13C5 PFPeA	117		12 - 135	11/11/21 17:15	11/14/21 01:25	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.099	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Arsenic	2.2		1.1	0.11	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Barium	55.4		2.2	0.16	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Beryllium	0.35	J	0.45	0.063	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Cadmium	0.35	J	1.1	0.13	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Chromium	16.4		2.2	0.30	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Copper	29.1		2.2	0.41	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Manganese	258		4.5	0.45	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Nickel	11.8		2.2	0.52	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Lead	116		0.67	0.22	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Selenium	0.15	J	1.4	0.14	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2
Zinc	108		8.9	3.4	mg/Kg	✱	11/14/21 06:55	11/18/21 12:07	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.019	0.0089	mg/Kg	✱	11/18/21 03:54	11/18/21 09:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	16.4		2.0	2.0	mg/Kg			11/12/21 06:03	1
Cr (VI)	2.3	U	2.3	0.96	mg/Kg	✱	11/12/21 14:41	11/14/21 12:44	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	11/13/21 00:13	11/15/21 23:35	1
Percent Moisture	11.9		1.0	1.0	%			11/11/21 23:40	1
Percent Solids	88.1		1.0	1.0	%			11/11/21 23:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 122_PE-1-SE

Lab Sample ID: 460-246853-3

Date Collected: 11/08/21 10:40

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 90.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.91	U	0.91	0.21	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,1-Dichloroethane	0.91	U	0.91	0.19	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,1-Dichloroethene	0.91	U	0.91	0.21	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,2,4-Trimethylbenzene	0.91	U	0.91	0.22	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,2-Dichlorobenzene	0.91	U	0.91	0.33	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,2-Dichloroethane	0.91	U	0.91	0.27	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,3,5-Trimethylbenzene	0.91	U	0.91	0.29	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,3-Dichlorobenzene	0.91	U	0.91	0.33	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,4-Dichlorobenzene	0.91	U	0.91	0.21	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
1,4-Dioxane	18	U	18	8.4	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
2-Butanone (MEK)	4.6	U	4.6	0.34	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Acetone	5.5	U	5.5	5.2	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Benzene	0.91	U	0.91	0.24	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Carbon tetrachloride	0.91	U	0.91	0.35	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Chlorobenzene	0.91	U	0.91	0.16	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Chloroform	0.91	U	0.91	0.89	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
cis-1,2-Dichloroethene	0.91	U	0.91	0.33	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Ethylbenzene	0.91	U	0.91	0.18	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Methyl tert-butyl ether	0.91	U	0.91	0.47	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
n-Butylbenzene	0.91	U	0.91	0.27	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
N-Propylbenzene	0.91	U	0.91	0.16	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
sec-Butylbenzene	0.91	U	0.91	0.26	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
tert-Butylbenzene	0.91	U	0.91	0.25	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Tetrachloroethene	0.91	U	0.91	0.28	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Toluene	0.91	U	0.91	0.21	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
trans-1,2-Dichloroethene	0.91	U	0.91	0.22	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Trichloroethene	0.91	U	0.91	0.29	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Vinyl chloride	0.91	U	0.91	0.50	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1
Xylenes, Total	1.8	U	1.8	0.59	ug/Kg	✱	11/10/21 09:58	11/11/21 19:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 145	11/10/21 09:58	11/11/21 19:38	1
4-Bromofluorobenzene	90		70 - 139	11/10/21 09:58	11/11/21 19:38	1
Dibromofluoromethane (Surr)	104		48 - 150	11/10/21 09:58	11/11/21 19:38	1
Toluene-d8 (Surr)	89		80 - 120	11/10/21 09:58	11/11/21 19:38	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	370	U	370	14	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
2-Methylphenol	370	U	370	14	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
3 & 4 Methylphenol	370	U	370	23	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Pentachlorophenol	300	U	300	75	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Naphthalene	370	U	370	6.4	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Acenaphthylene	370	U	370	3.7	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Acenaphthene	370	U	370	10	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Dibenzofuran	370	U	370	5.2	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Fluorene	370	U	370	5.0	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Hexachlorobenzene	37	U	37	17	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Phenanthrene	370	U	370	6.5	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 122_PE-1-SE

Lab Sample ID: 460-246853-3

Date Collected: 11/08/21 10:40

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 90.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	370	U	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Fluoranthene	370	U	370	13	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Pyrene	370	U	370	9.1	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Benzo[a]anthracene	37	U	37	13	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Chrysene	370	U	370	6.2	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Benzo[b]fluoranthene	37	U	37	9.5	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Benzo[k]fluoranthene	37	U	37	7.2	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Benzo[a]pyrene	37	U	37	9.8	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Indeno[1,2,3-cd]pyrene	37	U	37	14	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Dibenz(a,h)anthracene	37	U	37	16	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
Benzo[g,h,i]perylene	370	U	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1
1,4-Dioxane	37	U	37	32	ug/Kg	✱	11/11/21 00:28	11/11/21 11:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	74		11 - 104	11/11/21 00:28	11/11/21 11:30	1
Phenol-d5 (Surr)	78		15 - 100	11/11/21 00:28	11/11/21 11:30	1
Terphenyl-d14 (Surr)	85		12 - 126	11/11/21 00:28	11/11/21 11:30	1
2,4,6-Tribromophenol (Surr)	98		10 - 123	11/11/21 00:28	11/11/21 11:30	1
2-Fluorophenol (Surr)	78		10 - 105	11/11/21 00:28	11/11/21 11:30	1
2-Fluorobiphenyl	88		14 - 103	11/11/21 00:28	11/11/21 11:30	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.4	U	7.4	1.3	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
4,4'-DDE	7.4	U	7.4	0.88	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
4,4'-DDT	7.4	U	7.4	1.4	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Aldrin	7.4	U	7.4	1.1	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
alpha-BHC	2.2	U	2.2	0.76	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
beta-BHC	2.2	U	2.2	0.83	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Chlordane (technical)	74	U	74	18	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
delta-BHC	2.2	U	2.2	0.46	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Dieldrin	2.2	U	2.2	0.97	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Endosulfan I	7.4	U	7.4	1.1	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Endosulfan II	7.4	U	7.4	1.9	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Endosulfan sulfate	7.4	U	7.4	0.93	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Endrin	7.4	U	7.4	1.1	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Endrin aldehyde	7.4	U	7.4	1.8	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Endrin ketone	7.4	U	7.4	1.4	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
gamma-BHC (Lindane)	2.2	U	2.2	0.69	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Heptachlor	7.4	U	7.4	0.88	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Heptachlor epoxide	7.4	U	7.4	1.1	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Methoxychlor	7.4	U	7.4	1.7	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
Toxaphene	74	U	74	27	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1
cis-Chlordane	7.4	U	7.4	1.2	ug/Kg	✱	11/10/21 17:15	11/11/21 13:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		10 - 150	11/10/21 17:15	11/11/21 13:24	1
DCB Decachlorobiphenyl	73		10 - 150	11/10/21 17:15	11/11/21 13:24	1
Tetrachloro-m-xylene	78		10 - 133	11/10/21 17:15	11/11/21 13:24	1
Tetrachloro-m-xylene	77		10 - 133	11/10/21 17:15	11/11/21 13:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 122_PE-1-SE

Lab Sample ID: 460-246853-3

Date Collected: 11/08/21 10:40

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 90.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Aroclor 1221	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Aroclor 1232	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Aroclor 1242	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Aroclor 1248	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Aroclor 1254	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Aroclor 1260	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Aroclor-1262	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Aroclor 1268	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1
Polychlorinated biphenyls, Total	74	U	74	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		37 - 150	11/10/21 17:07	11/11/21 12:14	1
DCB Decachlorobiphenyl	98		37 - 150	11/10/21 17:07	11/11/21 12:14	1
Tetrachloro-m-xylene	87		54 - 150	11/10/21 17:07	11/11/21 12:14	1
Tetrachloro-m-xylene	86		54 - 150	11/10/21 17:07	11/11/21 12:14	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	37	U	37	3.9	ug/Kg	✱	11/10/21 23:59	11/11/21 12:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	109		65 - 150	11/10/21 23:59	11/11/21 12:30	1
2,4-Dichlorophenylacetic acid	148		65 - 150	11/10/21 23:59	11/11/21 12:30	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluoroheptanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorooctanoic acid	0.55	J	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorononanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorodecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorotridecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorotetradecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorobutanesulfonic acid	2.16	U	2.16	0.43	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorohexanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorooctanesulfonic acid	0.28	J	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
NEtFOSAA	2.16	U	2.16	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
NMeFOSAA	2.16	U	2.16	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluoroheptanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorodecanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorooctanesulfonamide	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorobutanoic acid	2.16	U	2.16	0.86	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluoroundecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluorododecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
6:2 Fluorotelomer sulfonic acid	2.16	U	2.16	0.65	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
8:2 Fluorotelomer sulfonic acid	3.24	U	3.24	0.65	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1
Perfluoropentanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	109		10 - 178	11/11/21 17:15	11/14/21 01:36	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 122_PE-1-SE

Lab Sample ID: 460-246853-3

Date Collected: 11/08/21 10:40

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 90.0

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	96		10 - 182	11/11/21 17:15	11/14/21 01:36	1
13C5 PFHxA	110		11 - 138	11/11/21 17:15	11/14/21 01:36	1
13C4 PFHpA	108		15 - 139	11/11/21 17:15	11/14/21 01:36	1
13C8 PFOA	109		21 - 133	11/11/21 17:15	11/14/21 01:36	1
13C9 PFNA	116		15 - 145	11/11/21 17:15	11/14/21 01:36	1
13C6 PFDA	107		21 - 134	11/11/21 17:15	11/14/21 01:36	1
13C7 PFUnA	99		15 - 138	11/11/21 17:15	11/14/21 01:36	1
13C2-PFDoDA	104		28 - 126	11/11/21 17:15	11/14/21 01:36	1
13C2 PFTeDA	105		10 - 138	11/11/21 17:15	11/14/21 01:36	1
13C3 PFBS	107		23 - 130	11/11/21 17:15	11/14/21 01:36	1
13C3 PFHxS	99		24 - 136	11/11/21 17:15	11/14/21 01:36	1
13C8 PFOS	114		31 - 130	11/11/21 17:15	11/14/21 01:36	1
d3-NMeFOSAA	17		10 - 172	11/11/21 17:15	11/14/21 01:36	1
d5-NEtFOSAA	20		10 - 176	11/11/21 17:15	11/14/21 01:36	1
13C8 FOSA	99		25 - 135	11/11/21 17:15	11/14/21 01:36	1
13C4 PFBA	106		12 - 137	11/11/21 17:15	11/14/21 01:36	1
13C5 PFPeA	105		12 - 135	11/11/21 17:15	11/14/21 01:36	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.092	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Arsenic	1.4		1.0	0.11	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Barium	26.5		2.1	0.15	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Beryllium	0.27	J	0.42	0.059	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Cadmium	1.0	U	1.0	0.12	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Chromium	8.6		2.1	0.28	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Copper	5.5		2.1	0.38	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Manganese	230		4.2	0.42	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Nickel	9.1		2.1	0.49	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Lead	19.8		0.62	0.21	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Selenium	1.3	U	1.3	0.13	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2
Zinc	25.5		8.3	3.2	mg/Kg	✱	11/14/21 06:55	11/18/21 12:09	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.019	0.0087	mg/Kg	✱	11/18/21 03:54	11/18/21 09:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	8.6		2.0	2.0	mg/Kg			11/12/21 06:03	1
Cr (VI)	2.2	U	2.2	0.94	mg/Kg	✱	11/12/21 14:41	11/14/21 13:32	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	11/13/21 00:13	11/15/21 23:36	1
Percent Moisture	10		1.0	1.0	%			11/11/21 23:40	1
Percent Solids	90.0		1.0	1.0	%			11/11/21 23:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 123_PE-1-SW

Lab Sample ID: 460-246853-4

Date Collected: 11/08/21 10:50

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.93	U	0.93	0.22	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,1-Dichloroethane	0.93	U	0.93	0.19	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,1-Dichloroethene	0.93	U	0.93	0.21	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,2,4-Trimethylbenzene	1.1		0.93	0.23	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,2-Dichlorobenzene	0.93	U	0.93	0.34	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,2-Dichloroethane	0.93	U	0.93	0.28	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,3,5-Trimethylbenzene	1.1		0.93	0.29	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,3-Dichlorobenzene	0.93	U	0.93	0.34	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,4-Dichlorobenzene	0.93	U	0.93	0.21	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
1,4-Dioxane	19	U	19	8.5	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
2-Butanone (MEK)	4.7	U	4.7	0.34	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Acetone	5.6	U	5.6	5.3	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Benzene	1.2		0.93	0.24	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Carbon tetrachloride	0.93	U	0.93	0.36	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Chlorobenzene	0.93	U	0.93	0.16	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Chloroform	0.93	U	0.93	0.90	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
cis-1,2-Dichloroethene	0.93	U	0.93	0.33	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Ethylbenzene	0.36	J	0.93	0.19	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Methyl tert-butyl ether	0.93	U	0.93	0.48	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Methylene Chloride	1.4	J	1.9	1.1	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
n-Butylbenzene	0.93	U	0.93	0.27	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
N-Propylbenzene	0.93	U	0.93	0.16	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
sec-Butylbenzene	0.93	U	0.93	0.27	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
tert-Butylbenzene	0.93	U	0.93	0.26	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Tetrachloroethene	0.93	U	0.93	0.28	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Toluene	1.3		0.93	0.22	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
trans-1,2-Dichloroethene	0.93	U	0.93	0.23	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Trichloroethene	0.93	U	0.93	0.30	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Vinyl chloride	0.93	U	0.93	0.51	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1
Xylenes, Total	2.3		1.9	0.60	ug/Kg	✱	11/10/21 09:59	11/11/21 20:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 145	11/10/21 09:59	11/11/21 20:00	1
4-Bromofluorobenzene	91		70 - 139	11/10/21 09:59	11/11/21 20:00	1
Dibromofluoromethane (Surr)	106		48 - 150	11/10/21 09:59	11/11/21 20:00	1
Toluene-d8 (Surr)	88		80 - 120	11/10/21 09:59	11/11/21 20:00	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	370	U	370	14	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
2-Methylphenol	370	U	370	14	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
3 & 4 Methylphenol	370	U	370	23	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Pentachlorophenol	300	U	300	76	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Naphthalene	370	U	370	6.4	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Acenaphthylene	370	U	370	3.7	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Acenaphthene	370	U	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Dibenzofuran	370	U	370	5.2	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Fluorene	370	U	370	5.1	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Hexachlorobenzene	37	U	37	18	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Phenanthrene	27	J	370	6.5	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 123_PE-1-SW

Lab Sample ID: 460-246853-4

Date Collected: 11/08/21 10:50

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	20	J	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Fluoranthene	150	J	370	13	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Pyrene	230	J	370	9.3	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Benzo[a]anthracene	120		37	13	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Chrysene	230	J	370	6.3	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Benzo[b]fluoranthene	500		37	9.6	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Benzo[k]fluoranthene	180		37	7.3	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Benzo[a]pyrene	200		37	9.9	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Indeno[1,2,3-cd]pyrene	160		37	15	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Dibenz(a,h)anthracene	34	J	37	16	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
Benzo[g,h,i]perylene	130	J	370	11	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1
1,4-Dioxane	37	U	37	33	ug/Kg	✱	11/11/21 00:28	11/11/21 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	70		11 - 104	11/11/21 00:28	11/11/21 14:14	1
Phenol-d5 (Surr)	76		15 - 100	11/11/21 00:28	11/11/21 14:14	1
Terphenyl-d14 (Surr)	85		12 - 126	11/11/21 00:28	11/11/21 14:14	1
2,4,6-Tribromophenol (Surr)	92		10 - 123	11/11/21 00:28	11/11/21 14:14	1
2-Fluorophenol (Surr)	79		10 - 105	11/11/21 00:28	11/11/21 14:14	1
2-Fluorobiphenyl	85		14 - 103	11/11/21 00:28	11/11/21 14:14	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.5	U	7.5	1.3	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
4,4'-DDE	5.3	J	7.5	0.89	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
4,4'-DDT	5.2	J	7.5	1.4	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Aldrin	7.5	U	7.5	1.1	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
alpha-BHC	2.3	U	2.3	0.77	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
beta-BHC	2.3	U	2.3	0.84	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Chlordane (technical)	75	U	75	18	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
delta-BHC	2.3	U	2.3	0.46	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Dieldrin	2.3	U	2.3	0.98	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Endosulfan I	7.5	U	7.5	1.1	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Endosulfan II	7.5	U	7.5	1.9	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Endosulfan sulfate	7.5	U	7.5	0.95	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Endrin	7.5	U	7.5	1.1	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Endrin aldehyde	7.5	U	7.5	1.8	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Endrin ketone	7.5	U	7.5	1.5	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
gamma-BHC (Lindane)	2.3	U	2.3	0.70	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Heptachlor	7.5	U	7.5	0.89	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Heptachlor epoxide	7.5	U	7.5	1.1	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Methoxychlor	7.5	U	7.5	1.7	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
Toxaphene	75	U	75	27	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1
cis-Chlordane	7.5	U	7.5	1.2	ug/Kg	✱	11/10/21 17:15	11/12/21 06:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	100		10 - 150	11/10/21 17:15	11/12/21 06:25	1
DCB Decachlorobiphenyl	104		10 - 150	11/10/21 17:15	11/12/21 06:25	1
Tetrachloro-m-xylene	83		10 - 133	11/10/21 17:15	11/12/21 06:25	1
Tetrachloro-m-xylene	89		10 - 133	11/10/21 17:15	11/12/21 06:25	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 123_PE-1-SW

Lab Sample ID: 460-246853-4

Date Collected: 11/08/21 10:50

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Aroclor 1221	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Aroclor 1232	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Aroclor 1242	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Aroclor 1248	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Aroclor 1254	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Aroclor 1260	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Aroclor-1262	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Aroclor 1268	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1
Polychlorinated biphenyls, Total	75	U	75	20	ug/Kg	✱	11/10/21 17:07	11/11/21 12:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		37 - 150	11/10/21 17:07	11/11/21 12:31	1
DCB Decachlorobiphenyl	102		37 - 150	11/10/21 17:07	11/11/21 12:31	1
Tetrachloro-m-xylene	92		54 - 150	11/10/21 17:07	11/11/21 12:31	1
Tetrachloro-m-xylene	90		54 - 150	11/10/21 17:07	11/11/21 12:31	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	37	U	37	3.9	ug/Kg	✱	11/10/21 23:59	11/11/21 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	106		65 - 150	11/10/21 23:59	11/11/21 12:45	1
2,4-Dichlorophenylacetic acid	146		65 - 150	11/10/21 23:59	11/11/21 12:45	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluoroheptanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorooctanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorononanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorodecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorotridecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorotetradecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorobutanesulfonic acid	2.19	U	2.19	0.44	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorohexanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorooctanesulfonic acid	0.84		0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
NEtFOSAA	2.19	U	2.19	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
NMeFOSAA	2.19	U	2.19	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluoroheptanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorodecanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorooctanesulfonamide	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorobutanoic acid	2.19	U	2.19	0.87	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluoroundecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluorododecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
6:2 Fluorotelomer sulfonic acid	2.19	U	2.19	0.66	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
8:2 Fluorotelomer sulfonic acid	3.28	U	3.28	0.66	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1
Perfluoropentanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	11/11/21 17:15	11/14/21 01:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	115		10 - 178	11/11/21 17:15	11/14/21 01:47	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 123_PE-1-SW

Lab Sample ID: 460-246853-4

Date Collected: 11/08/21 10:50

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.8

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	100		10 - 182	11/11/21 17:15	11/14/21 01:47	1
13C5 PFHxA	110		11 - 138	11/11/21 17:15	11/14/21 01:47	1
13C4 PFHpA	110		15 - 139	11/11/21 17:15	11/14/21 01:47	1
13C8 PFOA	117		21 - 133	11/11/21 17:15	11/14/21 01:47	1
13C9 PFNA	125		15 - 145	11/11/21 17:15	11/14/21 01:47	1
13C6 PFDA	112		21 - 134	11/11/21 17:15	11/14/21 01:47	1
13C7 PFUnA	104		15 - 138	11/11/21 17:15	11/14/21 01:47	1
13C2-PFDoDA	110		28 - 126	11/11/21 17:15	11/14/21 01:47	1
13C2 PFTeDA	107		10 - 138	11/11/21 17:15	11/14/21 01:47	1
13C3 PFBS	110		23 - 130	11/11/21 17:15	11/14/21 01:47	1
13C3 PFHxS	103		24 - 136	11/11/21 17:15	11/14/21 01:47	1
13C8 PFOS	117		31 - 130	11/11/21 17:15	11/14/21 01:47	1
d3-NMeFOSAA	40		10 - 172	11/11/21 17:15	11/14/21 01:47	1
d5-NEtFOSAA	52		10 - 176	11/11/21 17:15	11/14/21 01:47	1
13C8 FOSA	103		25 - 135	11/11/21 17:15	11/14/21 01:47	1
13C4 PFBA	108		12 - 137	11/11/21 17:15	11/14/21 01:47	1
13C5 PFPeA	106		12 - 135	11/11/21 17:15	11/14/21 01:47	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.095	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Arsenic	1.8		1.1	0.11	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Barium	32.3		2.1	0.15	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Beryllium	0.36	J	0.42	0.061	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Chromium	9.0		2.1	0.28	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Copper	7.4		2.1	0.39	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Manganese	250		4.2	0.43	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Nickel	7.9		2.1	0.50	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Lead	11.5		0.64	0.21	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Selenium	1.3	U	1.3	0.14	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2
Zinc	25.1		8.5	3.2	mg/Kg	✱	11/14/21 06:55	11/18/21 12:11	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045		0.019	0.0087	mg/Kg	✱	11/18/21 03:54	11/18/21 09:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.0		2.0	2.0	mg/Kg			11/12/21 06:03	1
Cr (VI)	2.2	U	2.2	0.95	mg/Kg	✱	11/12/21 14:41	11/14/21 13:32	1
Cyanide, Total	0.27	U	0.27	0.15	mg/Kg	✱	11/13/21 00:13	11/15/21 23:37	1
Percent Moisture	11.2		1.0	1.0	%			11/11/21 23:40	1
Percent Solids	88.8		1.0	1.0	%			11/11/21 23:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 124_PE-1-NW

Lab Sample ID: 460-246853-5

Date Collected: 11/08/21 11:00

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 92.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.84	U	0.84	0.19	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,1-Dichloroethane	0.84	U	0.84	0.17	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,1-Dichloroethene	0.84	U	0.84	0.19	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,2,4-Trimethylbenzene	0.84	U	0.84	0.21	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,2-Dichlorobenzene	0.84	U	0.84	0.30	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,2-Dichloroethane	0.84	U	0.84	0.25	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,3,5-Trimethylbenzene	0.84	U	0.84	0.26	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,3-Dichlorobenzene	0.84	U	0.84	0.30	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,4-Dichlorobenzene	0.84	U	0.84	0.19	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
1,4-Dioxane	17	U	17	7.7	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
2-Butanone (MEK)	4.2	U	4.2	0.31	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Acetone	5.0	U	5.0	4.8	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Benzene	0.84	U	0.84	0.22	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Carbon tetrachloride	0.84	U	0.84	0.32	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Chlorobenzene	0.84	U	0.84	0.15	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Chloroform	0.84	U	0.84	0.81	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
cis-1,2-Dichloroethene	0.84	U	0.84	0.30	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Ethylbenzene	0.84	U	0.84	0.17	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Methyl tert-butyl ether	0.84	U	0.84	0.43	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Methylene Chloride	1.7	U	1.7	0.96	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
n-Butylbenzene	0.84	U	0.84	0.25	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
N-Propylbenzene	0.84	U	0.84	0.15	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
sec-Butylbenzene	0.84	U	0.84	0.24	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
tert-Butylbenzene	0.84	U	0.84	0.23	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Tetrachloroethene	0.84	U	0.84	0.25	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Toluene	0.84	U	0.84	0.20	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
trans-1,2-Dichloroethene	0.84	U	0.84	0.21	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Trichloroethene	0.84	U	0.84	0.27	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Vinyl chloride	0.84	U	0.84	0.46	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1
Xylenes, Total	1.7	U	1.7	0.54	ug/Kg	✱	11/10/21 10:00	11/11/21 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 145	11/10/21 10:00	11/11/21 20:23	1
4-Bromofluorobenzene	91		70 - 139	11/10/21 10:00	11/11/21 20:23	1
Dibromofluoromethane (Surr)	106		48 - 150	11/10/21 10:00	11/11/21 20:23	1
Toluene-d8 (Surr)	89		80 - 120	11/10/21 10:00	11/11/21 20:23	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	360	U	360	13	ug/Kg	✱	11/11/21 00:28	11/11/21 20:10	1
2-Methylphenol	120	J	360	13	ug/Kg	✱	11/11/21 00:28	11/11/21 20:10	1
3 & 4 Methylphenol	350	J	360	22	ug/Kg	✱	11/11/21 00:28	11/11/21 20:10	1
Pentachlorophenol	290	U	290	73	ug/Kg	✱	11/11/21 00:28	11/11/21 20:10	1
Naphthalene	43000		18000	310	ug/Kg	✱	11/11/21 00:28	11/12/21 09:00	50
Acenaphthylene	10000		1800	18	ug/Kg	✱	11/11/21 00:28	11/12/21 08:37	5
Acenaphthene	14000		1800	51	ug/Kg	✱	11/11/21 00:28	11/12/21 08:37	5
Dibenzofuran	23000		1800	25	ug/Kg	✱	11/11/21 00:28	11/12/21 08:37	5
Fluorene	37000		1800	24	ug/Kg	✱	11/11/21 00:28	11/12/21 08:37	5
Hexachlorobenzene	36	U	36	17	ug/Kg	✱	11/11/21 00:28	11/11/21 20:10	1
Phenanthrene	220000		18000	310	ug/Kg	✱	11/11/21 00:28	11/12/21 09:00	50

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 124_PE-1-NW

Lab Sample ID: 460-246853-5

Date Collected: 11/08/21 11:00

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 92.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	23000		1800	54	ug/Kg	☆	11/11/21 00:28	11/12/21 08:37	5
Fluoranthene	140000		18000	620	ug/Kg	☆	11/11/21 00:28	11/12/21 09:00	50
Pyrene	120000		18000	440	ug/Kg	☆	11/11/21 00:28	11/12/21 09:00	50
Benzo[a]anthracene	48000		1800	620	ug/Kg	☆	11/11/21 00:28	11/12/21 09:00	50
Chrysene	60000		18000	300	ug/Kg	☆	11/11/21 00:28	11/12/21 09:00	50
Benzo[b]fluoranthene	56000		1800	460	ug/Kg	☆	11/11/21 00:28	11/12/21 09:00	50
Benzo[k]fluoranthene	24000		180	35	ug/Kg	☆	11/11/21 00:28	11/12/21 08:37	5
Benzo[a]pyrene	41000		1800	480	ug/Kg	☆	11/11/21 00:28	11/12/21 09:00	50
Indeno[1,2,3-cd]pyrene	23000		180	70	ug/Kg	☆	11/11/21 00:28	11/12/21 08:37	5
Dibenz(a,h)anthracene	7800		36	15	ug/Kg	☆	11/11/21 00:28	11/11/21 20:10	1
Benzo[g,h,i]perylene	18000		1800	53	ug/Kg	☆	11/11/21 00:28	11/12/21 08:37	5
1,4-Dioxane	36	U	36	31	ug/Kg	☆	11/11/21 00:28	11/11/21 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	70		11 - 104	11/11/21 00:28	11/11/21 20:10	1
Nitrobenzene-d5 (Surr)	63		11 - 104	11/11/21 00:28	11/12/21 08:37	5
Nitrobenzene-d5 (Surr)	0 *		11 - 104	11/11/21 00:28	11/12/21 09:00	50
Phenol-d5 (Surr)	73		15 - 100	11/11/21 00:28	11/11/21 20:10	1
Phenol-d5 (Surr)	67		15 - 100	11/11/21 00:28	11/12/21 08:37	5
Phenol-d5 (Surr)	0 *		15 - 100	11/11/21 00:28	11/12/21 09:00	50
Terphenyl-d14 (Surr)	89		12 - 126	11/11/21 00:28	11/11/21 20:10	1
Terphenyl-d14 (Surr)	77		12 - 126	11/11/21 00:28	11/12/21 08:37	5
Terphenyl-d14 (Surr)	0 *		12 - 126	11/11/21 00:28	11/12/21 09:00	50
2,4,6-Tribromophenol (Surr)	89		10 - 123	11/11/21 00:28	11/11/21 20:10	1
2,4,6-Tribromophenol (Surr)	68		10 - 123	11/11/21 00:28	11/12/21 08:37	5
2,4,6-Tribromophenol (Surr)	0 *		10 - 123	11/11/21 00:28	11/12/21 09:00	50
2-Fluorophenol (Surr)	76		10 - 105	11/11/21 00:28	11/11/21 20:10	1
2-Fluorophenol (Surr)	62		10 - 105	11/11/21 00:28	11/12/21 08:37	5
2-Fluorophenol (Surr)	0 *		10 - 105	11/11/21 00:28	11/12/21 09:00	50
2-Fluorobiphenyl	82		14 - 103	11/11/21 00:28	11/11/21 20:10	1
2-Fluorobiphenyl	69		14 - 103	11/11/21 00:28	11/12/21 08:37	5
2-Fluorobiphenyl	0 *		14 - 103	11/11/21 00:28	11/12/21 09:00	50

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.2	U	7.2	1.2	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
4,4'-DDE	7.2	U	7.2	0.85	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
4,4'-DDT	7.2	U	7.2	1.3	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Aldrin	7.2	U	7.2	1.1	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
alpha-BHC	2.2	U	2.2	0.73	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
beta-BHC	2.2	U	2.2	0.81	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Chlordane (technical)	72	U	72	17	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
delta-BHC	2.2	U	2.2	0.44	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Dieldrin	2.2	U	2.2	0.94	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Endosulfan I	7.2	U	7.2	1.1	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Endosulfan II	7.2	U	7.2	1.9	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Endosulfan sulfate	7.2	U	7.2	0.91	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Endrin	7.2	U	7.2	1.0	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Endrin aldehyde	7.2	U	7.2	1.7	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1
Endrin ketone	7.2	U	7.2	1.4	ug/Kg	☆	11/10/21 17:15	11/12/21 06:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 124_PE-1-NW

Lab Sample ID: 460-246853-5

Date Collected: 11/08/21 11:00

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 92.6

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	2.2	U	2.2	0.67	ug/Kg	✱	11/10/21 17:15	11/12/21 06:40	1
Heptachlor	7.2	U	7.2	0.85	ug/Kg	✱	11/10/21 17:15	11/12/21 06:40	1
Heptachlor epoxide	7.2	U	7.2	1.1	ug/Kg	✱	11/10/21 17:15	11/12/21 06:40	1
Methoxychlor	7.2	U	7.2	1.7	ug/Kg	✱	11/10/21 17:15	11/12/21 06:40	1
Toxaphene	72	U	72	26	ug/Kg	✱	11/10/21 17:15	11/12/21 06:40	1
cis-Chlordane	7.2	U	7.2	1.1	ug/Kg	✱	11/10/21 17:15	11/12/21 06:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	106		10 - 150	11/10/21 17:15	11/12/21 06:40	1
DCB Decachlorobiphenyl	108		10 - 150	11/10/21 17:15	11/12/21 06:40	1
Tetrachloro-m-xylene	91		10 - 133	11/10/21 17:15	11/12/21 06:40	1
Tetrachloro-m-xylene	92		10 - 133	11/10/21 17:15	11/12/21 06:40	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Aroclor 1221	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Aroclor 1232	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Aroclor 1242	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Aroclor 1248	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Aroclor 1254	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Aroclor 1260	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Aroclor-1262	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Aroclor 1268	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1
Polychlorinated biphenyls, Total	72	U	72	19	ug/Kg	✱	11/10/21 17:07	11/11/21 12:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	111		37 - 150	11/10/21 17:07	11/11/21 12:47	1
DCB Decachlorobiphenyl	118		37 - 150	11/10/21 17:07	11/11/21 12:47	1
Tetrachloro-m-xylene	104		54 - 150	11/10/21 17:07	11/11/21 12:47	1
Tetrachloro-m-xylene	103		54 - 150	11/10/21 17:07	11/11/21 12:47	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	36	U	36	3.7	ug/Kg	✱	11/10/21 23:59	11/11/21 13:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	132		65 - 150	11/10/21 23:59	11/11/21 13:00	1
2,4-Dichlorophenylacetic acid	167	*	65 - 150	11/10/21 23:59	11/11/21 13:00	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluoroheptanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorooctanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorononanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorodecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorotridecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorotetradecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorobutanesulfonic acid	2.10	U	2.10	0.42	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorohexanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 124_PE-1-NW

Lab Sample ID: 460-246853-5

Date Collected: 11/08/21 11:00

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 92.6

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid	1.54		0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
NEtFOSAA	2.10	U	2.10	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
NMeFOSAA	2.10	U	2.10	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluoroheptanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorodecanesulfonic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorooctanesulfonamide	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorobutanoic acid	2.10	U	2.10	0.84	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluoroundecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluorododecanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
6:2 Fluorotelomer sulfonic acid	2.10	U	2.10	0.63	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
8:2 Fluorotelomer sulfonic acid	3.15	U	3.15	0.63	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Perfluoropentanoic acid	0.63	U	0.63	0.21	ug/Kg	✱	11/11/21 17:15	11/14/21 01:58	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	101		10 - 178				11/11/21 17:15	11/14/21 01:58	1
M2-6:2 FTS	82		10 - 182				11/11/21 17:15	11/14/21 01:58	1
13C5 PFHxA	101		11 - 138				11/11/21 17:15	11/14/21 01:58	1
13C4 PFHpA	102		15 - 139				11/11/21 17:15	11/14/21 01:58	1
13C8 PFOA	101		21 - 133				11/11/21 17:15	11/14/21 01:58	1
13C9 PFNA	121		15 - 145				11/11/21 17:15	11/14/21 01:58	1
13C6 PFDA	109		21 - 134				11/11/21 17:15	11/14/21 01:58	1
13C7 PFUnA	95		15 - 138				11/11/21 17:15	11/14/21 01:58	1
13C2-PFDoDA	104		28 - 126				11/11/21 17:15	11/14/21 01:58	1
13C2 PFTeDA	100		10 - 138				11/11/21 17:15	11/14/21 01:58	1
13C3 PFBS	98		23 - 130				11/11/21 17:15	11/14/21 01:58	1
13C3 PFHxS	94		24 - 136				11/11/21 17:15	11/14/21 01:58	1
13C8 PFOS	112		31 - 130				11/11/21 17:15	11/14/21 01:58	1
d3-NMeFOSAA	28		10 - 172				11/11/21 17:15	11/14/21 01:58	1
d5-NEtFOSAA	36		10 - 176				11/11/21 17:15	11/14/21 01:58	1
13C8 FOSA	99		25 - 135				11/11/21 17:15	11/14/21 01:58	1
13C4 PFBA	98		12 - 137				11/11/21 17:15	11/14/21 01:58	1
13C5 PFPeA	100		12 - 135				11/11/21 17:15	11/14/21 01:58	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Arsenic	2.3		1.0	0.10	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Barium	29.5		2.0	0.15	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Beryllium	0.29	J	0.40	0.057	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Cadmium	0.22	J	1.0	0.11	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Chromium	8.8		2.0	0.27	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Copper	9.8		2.0	0.37	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Manganese	237		4.0	0.40	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Nickel	10.2		2.0	0.47	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Lead	14.4		0.60	0.20	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Selenium	1.3	U	1.3	0.13	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2
Zinc	38.9		8.0	3.1	mg/Kg	✱	11/14/21 06:55	11/18/21 12:14	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042		0.017	0.0082	mg/Kg	✱	11/18/21 03:54	11/18/21 09:26	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 124_PE-1-NW

Lab Sample ID: 460-246853-5

Date Collected: 11/08/21 11:00

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 92.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	8.8		2.0	2.0	mg/Kg			11/12/21 06:03	1
Cr (VI)	2.2	U	2.2	0.92	mg/Kg	☆	11/12/21 14:41	11/14/21 13:32	1
Cyanide, Total	0.25	U	0.25	0.14	mg/Kg	☆	11/13/21 00:13	11/15/21 23:38	1
Percent Moisture	7.4		1.0	1.0	%			11/11/21 23:40	1
Percent Solids	92.6		1.0	1.0	%			11/11/21 23:40	1

Client Sample ID: 125_TB-9

Lab Sample ID: 460-246853-6

Date Collected: 11/08/21 00:00

Matrix: Water

Date Received: 11/08/21 19:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/10/21 20:39	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/10/21 20:39	1
Acetone	5.0	U	5.0	4.4	ug/L			11/10/21 20:39	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/10/21 20:39	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/10/21 20:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/10/21 20:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/10/21 20:39	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/10/21 20:39	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/10/21 20:39	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/10/21 20:39	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/10/21 20:39	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/10/21 20:39	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/10/21 20:39	1
Benzene	1.0	U	1.0	0.20	ug/L			11/10/21 20:39	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/10/21 20:39	1
Toluene	1.0	U	1.0	0.38	ug/L			11/10/21 20:39	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/10/21 20:39	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/10/21 20:39	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/10/21 20:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			11/10/21 20:39	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/10/21 20:39	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/10/21 20:39	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			11/10/21 20:39	1
1,4-Dioxane	50	U	50	28	ug/L			11/10/21 20:39	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			11/10/21 20:39	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			11/10/21 20:39	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			11/10/21 20:39	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			11/10/21 20:39	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			11/10/21 20:39	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			11/10/21 20:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		75 - 123		11/10/21 20:39	1
Toluene-d8 (Surr)	102		80 - 120		11/10/21 20:39	1
4-Bromofluorobenzene	95		76 - 120		11/10/21 20:39	1
Dibromofluoromethane (Surr)	99		77 - 124		11/10/21 20:39	1

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-246853-1	120_PE-1	110	87	105	88
460-246853-1 MS	120_PE-1	100	89	102	93
460-246853-1 MSD	120_PE-1	106	90	103	91
460-246853-2	121_PE-1-NE	112	92	107	89
460-246853-3	122_PE-1-SE	109	90	104	89
460-246853-4	123_PE-1-SW	112	91	106	88
460-246853-5	124_PE-1-NW	111	91	106	89
LCS 460-812674/6	Lab Control Sample	96	87	100	94
LCSD 460-812674/9	Lab Control Sample Dup	101	89	103	94
MB 460-812674/12	Method Blank	121	97	115	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-246853-6	125_TB-9	96	102	95	99
LCS 460-812578/4	Lab Control Sample	95	104	94	95
LCSD 460-812578/5	Lab Control Sample Dup	86	100	89	91
MB 460-812578/8	Method Blank	96	100	92	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-246853-1	120_PE-1	73	77	85	95	82	87
460-246853-1 MS	120_PE-1	72	74	84	97	80	83
460-246853-1 MSD	120_PE-1	74	78	87	99	81	85
460-246853-2	121_PE-1-NE	75	78	86	97	81	86
460-246853-3	122_PE-1-SE	74	78	85	98	78	88
460-246853-4	123_PE-1-SW	70	76	85	92	79	85
460-246853-5	124_PE-1-NW	70	73	89	89	76	82
460-246853-5	124_PE-1-NW	63	67	77	68	62	69
460-246853-5	124_PE-1-NW	0 *	0 *	0 *	0 *	0 *	0 *
LCS 460-812613/2-A	Lab Control Sample	75	73	86	101	77	85
LCSD 460-812613/3-A	Lab Control Sample Dup	77	77	84	101	79	86

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
MB 460-812613/1-A	Method Blank	76	78	91	98	78	86
Surrogate Legend							
NBZ = Nitrobenzene-d5 (Surr)							
PHL = Phenol-d5 (Surr)							
TPHL = Terphenyl-d14 (Surr)							
TBP = 2,4,6-Tribromophenol (Surr)							
2FP = 2-Fluorophenol (Surr)							
FBP = 2-Fluorobiphenyl							

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-246849-E-1-E MSD	Matrix Spike Duplicate	65	83	70	67
460-246849-F-1-C MS	Matrix Spike	64	80	67	63
460-246853-1	120_PE-1	98	91	82	80
460-246853-1 MS	120_PE-1	86	79	74	72
460-246853-1 MSD	120_PE-1	84	77	73	72
460-246853-2	121_PE-1-NE	71	90	75	76
460-246853-3	122_PE-1-SE	73	90	77	78
460-246853-4	123_PE-1-SW	104	100	89	83
460-246853-5	124_PE-1-NW	108	106	92	91
LCS 460-812574/2-A	Lab Control Sample	48	62	56	52
LCS 460-812802/2-A	Lab Control Sample	80	75	71	67
LCSD 460-812574/3-A	Lab Control Sample Dup	44	56	52	52
LCSD 460-812802/3-A	Lab Control Sample Dup	74	68	65	62
MB 460-812574/1-A	Method Blank	43	53	47	49
MB 460-812802/1-A	Method Blank	85	76	76	76
Surrogate Legend					
DCBP = DCB Decachlorobiphenyl					
TCX = Tetrachloro-m-xylene					

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-246849-E-1-D MSD	Matrix Spike Duplicate	92	89	80	83
460-246849-F-1-A MS	Matrix Spike	100	97	88	90
460-246853-1	120_PE-1	99	96	87	85
460-246853-1 MS	120_PE-1	97	92	88	83
460-246853-1 MSD	120_PE-1	108	103	99	94
460-246853-2	121_PE-1-NE	103	97	90	92
460-246853-3	122_PE-1-SE	98	95	86	87
460-246853-4	123_PE-1-SW	102	97	90	92
460-246853-5	124_PE-1-NW	118	111	103	104
LCS 460-812571/2-A	Lab Control Sample	63	60	59	60

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
LCS 460-812573/2-A	Lab Control Sample	117	110	107	101
LCSD 460-812571/3-A	Lab Control Sample Dup	106	101	99	99
LCSD 460-812573/3-A	Lab Control Sample Dup	88	84	86	81
MB 460-812571/1-A	Method Blank	96	93	88	90
MB 460-812573/1-A	Method Blank	118	111	105	100

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-246853-1	120_PE-1	111	143
460-246853-1 MS	120_PE-1	127	157 *
460-246853-1 MSD	120_PE-1	136	171 *
460-246853-2	121_PE-1-NE	189 *	231 *
460-246853-3	122_PE-1-SE	109	148
460-246853-4	123_PE-1-SW	106	146
460-246853-5	124_PE-1-NW	132	167 *
LCS 460-812612/2-A	Lab Control Sample	73	84
LCSD 460-812612/3-A	Lab Control Sample Dup	90	90
MB 460-812612/1-A	Method Blank	88	92

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-246853-1	120_PE-1	119	100	121	128	119	126	125	114
460-246853-1 MS	120_PE-1	118	98	116	115	117	126	121	107
460-246853-1 MSD	120_PE-1	111	91	115	117	115	126	120	107
460-246853-2	121_PE-1-NE	120	93	120	120	126	137	117	107
460-246853-3	122_PE-1-SE	109	96	110	108	109	116	107	99
460-246853-4	123_PE-1-SW	115	100	110	110	117	125	112	104
460-246853-5	124_PE-1-NW	101	82	101	102	101	121	109	95
LCS 410-193810/2-B	Lab Control Sample	108	90	109	107	110	119	111	97
MB 410-193810/1-B	Method Blank	134	112	125	132	132	132	130	119

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-246853-1	120_PE-1	110	118	107	113	112	80	93	106
460-246853-1 MS	120_PE-1	113	110	110	106	113	66	74	98
460-246853-1 MSD	120_PE-1	110	112	111	104	118	47	55	103
460-246853-2	121_PE-1-NE	110	115	109	110	121	69	81	109
460-246853-3	122_PE-1-SE	104	105	107	99	114	17	20	99
460-246853-4	123_PE-1-SW	110	107	110	103	117	40	52	103
460-246853-5	124_PE-1-NW	104	100	98	94	112	28	36	99
LCS 410-193810/2-B	Lab Control Sample	102	109	106	101	110	110	107	97
MB 410-193810/1-B	Method Blank	119	114	123	120	124	112	131	113

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)
460-246853-1	120_PE-1	111	115
460-246853-1 MS	120_PE-1	112	113
460-246853-1 MSD	120_PE-1	112	112
460-246853-2	121_PE-1-NE	116	117
460-246853-3	122_PE-1-SE	106	105
460-246853-4	123_PE-1-SW	108	106
460-246853-5	124_PE-1-NW	98	100
LCS 410-193810/2-B	Lab Control Sample	107	111
MB 410-193810/1-B	Method Blank	128	125

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA

Eurofins Edison

Isotope Dilution Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812487

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.94	U	20.5	15.0	*	ug/Kg	☼	73	78 - 132
1,1-Dichloroethane	0.94	U	20.5	18.5		ug/Kg	☼	90	76 - 129
1,1-Dichloroethene	0.94	U	20.5	16.4		ug/Kg	☼	80	77 - 132
1,2,4-Trimethylbenzene	0.94	U	20.5	14.6	*	ug/Kg	☼	71	79 - 120
1,2-Dichlorobenzene	0.94	U	20.5	13.6	*	ug/Kg	☼	66	80 - 120
1,2-Dichloroethane	0.94	U	20.5	15.6		ug/Kg	☼	76	70 - 132
1,3,5-Trimethylbenzene	0.94	U	20.5	14.2	*	ug/Kg	☼	70	79 - 120
1,3-Dichlorobenzene	0.94	U	20.5	13.4	*	ug/Kg	☼	66	80 - 120
1,4-Dichlorobenzene	0.94	U	20.5	13.8	*	ug/Kg	☼	67	80 - 120
1,4-Dioxane	19	U	410	295	*	ug/Kg	☼	72	73 - 136
2-Butanone (MEK)	4.7	U	102	65.5	*	ug/Kg	☼	64	75 - 120
Acetone	5.6	U	102	74.0		ug/Kg	☼	72	63 - 131
Benzene	0.94	U	20.5	16.7		ug/Kg	☼	82	80 - 123
Carbon tetrachloride	0.94	U	20.5	13.7	*	ug/Kg	☼	67	72 - 136
Chlorobenzene	0.94	U	20.5	14.2	*	ug/Kg	☼	69	80 - 120
Chloroform	0.94	U	20.5	16.5		ug/Kg	☼	81	79 - 126
cis-1,2-Dichloroethene	0.94	U	20.5	16.5		ug/Kg	☼	81	80 - 123
Ethylbenzene	0.94	U	20.5	14.4	*	ug/Kg	☼	70	80 - 120
Methyl tert-butyl ether	0.94	U	20.5	17.9		ug/Kg	☼	87	80 - 125
Methylene Chloride	2.8		20.5	20.1		ug/Kg	☼	84	76 - 127
m-Xylene & p-Xylene	0.94	U	20.5	14.5	*	ug/Kg	☼	71	80 - 120
n-Butylbenzene	0.94	U	20.5	13.7	*	ug/Kg	☼	67	77 - 123
N-Propylbenzene	0.94	U	20.5	15.6	*	ug/Kg	☼	76	78 - 120
o-Xylene	0.94	U	20.5	14.5	*	ug/Kg	☼	71	80 - 120
sec-Butylbenzene	0.94	U	20.5	14.4	*	ug/Kg	☼	70	78 - 120
tert-Butylbenzene	0.94	U	20.5	14.0	*	ug/Kg	☼	69	76 - 120
Tetrachloroethene	0.94	U	20.5	12.2	*	ug/Kg	☼	60	78 - 123
Toluene	0.94	U	20.5	15.0	*	ug/Kg	☼	73	80 - 120
trans-1,2-Dichloroethene	0.94	U	20.5	16.8		ug/Kg	☼	82	78 - 128
Trichloroethene	0.94	U	20.5	15.8	*	ug/Kg	☼	77	79 - 120
Vinyl chloride	0.94	U	20.5	16.8		ug/Kg	☼	82	56 - 147
Xylenes, Total	1.9	U	41.0	28.9	*	ug/Kg	☼	71	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		77 - 145
4-Bromofluorobenzene	89		70 - 139
Dibromofluoromethane (Surr)	102		48 - 150
Toluene-d8 (Surr)	93		80 - 120

Lab Sample ID: 460-246853-1 MSD

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812487

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.94	U	20.6	13.9	*	ug/Kg	☼	67	78 - 132	8	30
1,1-Dichloroethane	0.94	U	20.6	16.7		ug/Kg	☼	81	76 - 129	10	30
1,1-Dichloroethene	0.94	U	20.6	15.7	*	ug/Kg	☼	76	77 - 132	5	30
1,2,4-Trimethylbenzene	0.94	U	20.6	10.6	*	ug/Kg	☼	51	79 - 120	32	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-246853-1 MSD

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812487

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	0.94	U	20.6	9.51	*	ug/Kg	☼	46	80 - 120	35	30
1,2-Dichloroethane	0.94	U	20.6	13.8	*	ug/Kg	☼	67	70 - 132	13	30
1,3,5-Trimethylbenzene	0.94	U	20.6	10.7	*	ug/Kg	☼	52	79 - 120	29	30
1,3-Dichlorobenzene	0.94	U	20.6	9.19	*	ug/Kg	☼	45	80 - 120	38	30
1,4-Dichlorobenzene	0.94	U	20.6	9.22	*	ug/Kg	☼	45	80 - 120	40	30
1,4-Dioxane	19	U	412	251	*	ug/Kg	☼	61	73 - 136	16	30
2-Butanone (MEK)	4.7	U	103	53.4	*	ug/Kg	☼	52	75 - 120	20	30
Acetone	5.6	U	103	67.0	*	ug/Kg	☼	65	63 - 131	10	30
Benzene	0.94	U	20.6	14.5	*	ug/Kg	☼	70	80 - 123	14	30
Carbon tetrachloride	0.94	U	20.6	12.7	*	ug/Kg	☼	62	72 - 136	8	30
Chlorobenzene	0.94	U	20.6	11.0	*	ug/Kg	☼	54	80 - 120	25	30
Chloroform	0.94	U	20.6	14.7	*	ug/Kg	☼	72	79 - 126	12	30
cis-1,2-Dichloroethene	0.94	U	20.6	14.3	*	ug/Kg	☼	69	80 - 123	14	30
Ethylbenzene	0.94	U	20.6	11.6	*	ug/Kg	☼	56	80 - 120	21	30
Methyl tert-butyl ether	0.94	U	20.6	15.9	*	ug/Kg	☼	77	80 - 125	12	30
Methylene Chloride	2.8		20.6	16.1	*	ug/Kg	☼	65	76 - 127	22	30
m-Xylene & p-Xylene	0.94	U	20.6	11.1	*	ug/Kg	☼	54	80 - 120	26	30
n-Butylbenzene	0.94	U	20.6	9.31	*	ug/Kg	☼	45	77 - 123	38	30
N-Propylbenzene	0.94	U	20.6	11.9	*	ug/Kg	☼	58	78 - 120	27	30
o-Xylene	0.94	U	20.6	11.3	*	ug/Kg	☼	55	80 - 120	25	30
sec-Butylbenzene	0.94	U	20.6	10.5	*	ug/Kg	☼	51	78 - 120	31	30
tert-Butylbenzene	0.94	U	20.6	10.6	*	ug/Kg	☼	52	76 - 120	28	30
Tetrachloroethene	0.94	U	20.6	10.1	*	ug/Kg	☼	49	78 - 123	19	30
Toluene	0.94	U	20.6	12.5	*	ug/Kg	☼	61	80 - 120	18	30
trans-1,2-Dichloroethene	0.94	U	20.6	14.7	*	ug/Kg	☼	72	78 - 128	13	30
Trichloroethene	0.94	U	20.6	13.4	*	ug/Kg	☼	65	79 - 120	16	30
Vinyl chloride	0.94	U	20.6	14.9	*	ug/Kg	☼	72	56 - 147	12	30
Xylenes, Total	1.9	U	41.2	22.5	*	ug/Kg	☼	54	80 - 120	25	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		77 - 145
4-Bromofluorobenzene	90		70 - 139
Dibromofluoromethane (Surr)	103		48 - 150
Toluene-d8 (Surr)	91		80 - 120

Lab Sample ID: MB 460-812578/8

Matrix: Water

Analysis Batch: 812578

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/10/21 20:18	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/10/21 20:18	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/10/21 20:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/10/21 20:18	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/10/21 20:18	1
Acetone	5.0	U	5.0	4.4	ug/L			11/10/21 20:18	1
Benzene	1.0	U	1.0	0.20	ug/L			11/10/21 20:18	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/10/21 20:18	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-812578/8

Matrix: Water

Analysis Batch: 812578

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	1.0	U	1.0	0.33	ug/L			11/10/21 20:18	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/10/21 20:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/10/21 20:18	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/10/21 20:18	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/10/21 20:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			11/10/21 20:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/10/21 20:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/10/21 20:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			11/10/21 20:18	1
1,4-Dioxane	50	U	50	28	ug/L			11/10/21 20:18	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			11/10/21 20:18	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/10/21 20:18	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			11/10/21 20:18	1
Toluene	1.0	U	1.0	0.38	ug/L			11/10/21 20:18	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			11/10/21 20:18	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			11/10/21 20:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/10/21 20:18	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			11/10/21 20:18	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/10/21 20:18	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			11/10/21 20:18	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/10/21 20:18	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/10/21 20:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		75 - 123		11/10/21 20:18	1
4-Bromofluorobenzene	92		76 - 120		11/10/21 20:18	1
Toluene-d8 (Surr)	100		80 - 120		11/10/21 20:18	1
Dibromofluoromethane (Surr)	95		77 - 124		11/10/21 20:18	1

Lab Sample ID: LCS 460-812578/4

Matrix: Water

Analysis Batch: 812578

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	22.9		ug/L		115	68 - 133
1,1-Dichloroethane	20.0	22.3		ug/L		112	73 - 130
1,2-Dichloroethane	20.0	20.6		ug/L		103	75 - 121
1,1,1-Trichloroethane	20.0	18.6		ug/L		93	68 - 128
2-Butanone (MEK)	100	94.2		ug/L		94	69 - 128
Acetone	100	92.2		ug/L		92	61 - 134
Benzene	20.0	22.5		ug/L		112	78 - 126
Carbon tetrachloride	20.0	19.4		ug/L		97	56 - 131
Chloroform	20.0	19.0		ug/L		95	78 - 125
Chlorobenzene	20.0	20.7		ug/L		103	80 - 119
cis-1,2-Dichloroethene	20.0	20.5		ug/L		102	78 - 121
Ethylbenzene	20.0	20.6		ug/L		103	78 - 120
Methylene Chloride	20.0	22.2		ug/L		111	74 - 127
m-Xylene & p-Xylene	20.0	21.6		ug/L		108	78 - 123

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-812578/4

Matrix: Water

Analysis Batch: 812578

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	20.0	21.5		ug/L		107	65 - 131
1,3-Dichlorobenzene	20.0	18.4		ug/L		92	80 - 121
1,4-Dichlorobenzene	20.0	19.0		ug/L		95	80 - 118
o-Xylene	20.0	19.6		ug/L		98	78 - 122
1,2-Dichlorobenzene	20.0	19.5		ug/L		97	79 - 122
1,4-Dioxane	400	384		ug/L		96	70 - 142
1,2,4-Trimethylbenzene	20.0	21.2		ug/L		106	75 - 125
Tetrachloroethene	20.0	19.9		ug/L		99	70 - 127
1,3,5-Trimethylbenzene	20.0	21.7		ug/L		109	75 - 125
Toluene	20.0	20.9		ug/L		104	78 - 119
N-Propylbenzene	20.0	23.3		ug/L		116	74 - 129
sec-Butylbenzene	20.0	21.9		ug/L		109	73 - 129
trans-1,2-Dichloroethene	20.0	21.1		ug/L		106	74 - 126
tert-Butylbenzene	20.0	20.4		ug/L		102	72 - 124
Trichloroethene	20.0	20.5		ug/L		102	71 - 121
n-Butylbenzene	20.0	22.3		ug/L		111	69 - 135
Vinyl chloride	20.0	18.0		ug/L		90	61 - 144
Xylenes, Total	40.0	41.2		ug/L		103	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		75 - 123
4-Bromofluorobenzene	94		76 - 120
Toluene-d8 (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	95		77 - 124

Lab Sample ID: LCSD 460-812578/5

Matrix: Water

Analysis Batch: 812578

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	24.6		ug/L		123	68 - 133	7	30
1,1-Dichloroethane	20.0	22.7		ug/L		114	73 - 130	2	30
1,2-Dichloroethane	20.0	20.7		ug/L		103	75 - 121	0	30
1,1,1-Trichloroethane	20.0	19.6		ug/L		98	68 - 128	5	30
2-Butanone (MEK)	100	106		ug/L		106	69 - 128	11	30
Acetone	100	102		ug/L		102	61 - 134	10	30
Benzene	20.0	23.2		ug/L		116	78 - 126	3	30
Carbon tetrachloride	20.0	20.6		ug/L		103	56 - 131	6	30
Chloroform	20.0	20.0		ug/L		100	78 - 125	5	30
Chlorobenzene	20.0	21.6		ug/L		108	80 - 119	4	30
cis-1,2-Dichloroethene	20.0	21.7		ug/L		108	78 - 121	6	30
Ethylbenzene	20.0	21.6		ug/L		108	78 - 120	5	30
Methylene Chloride	20.0	22.5		ug/L		113	74 - 127	1	30
m-Xylene & p-Xylene	20.0	21.9		ug/L		110	78 - 123	1	30
Methyl tert-butyl ether	20.0	22.2		ug/L		111	65 - 131	3	30
1,3-Dichlorobenzene	20.0	20.4		ug/L		102	80 - 121	11	30
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	80 - 118	7	30
o-Xylene	20.0	20.8		ug/L		104	78 - 122	6	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-812578/5

Matrix: Water

Analysis Batch: 812578

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	20.0	21.0		ug/L		105	79 - 122	7	30
1,4-Dioxane	400	415		ug/L		104	70 - 142	8	30
1,2,4-Trimethylbenzene	20.0	22.9		ug/L		115	75 - 125	8	30
Tetrachloroethene	20.0	20.6		ug/L		103	70 - 127	3	30
1,3,5-Trimethylbenzene	20.0	23.9		ug/L		120	75 - 125	10	30
Toluene	20.0	22.4		ug/L		112	78 - 119	7	30
N-Propylbenzene	20.0	25.2		ug/L		126	74 - 129	8	30
sec-Butylbenzene	20.0	24.3		ug/L		122	73 - 129	11	30
trans-1,2-Dichloroethene	20.0	23.1		ug/L		116	74 - 126	9	30
tert-Butylbenzene	20.0	22.5		ug/L		113	72 - 124	10	30
Trichloroethene	20.0	21.1		ug/L		106	71 - 121	3	30
n-Butylbenzene	20.0	24.3		ug/L		122	69 - 135	9	30
Vinyl chloride	20.0	19.3		ug/L		96	61 - 144	7	30
Xylenes, Total	40.0	42.8		ug/L		107	78 - 122	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		75 - 123
4-Bromofluorobenzene	89		76 - 120
Toluene-d8 (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	91		77 - 124

Lab Sample ID: MB 460-812674/12

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			11/11/21 12:14	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			11/11/21 12:14	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			11/11/21 12:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			11/11/21 12:14	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			11/11/21 12:14	1
Acetone	6.0	U	6.0	5.7	ug/Kg			11/11/21 12:14	1
Benzene	1.0	U	1.0	0.26	ug/Kg			11/11/21 12:14	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			11/11/21 12:14	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			11/11/21 12:14	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			11/11/21 12:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			11/11/21 12:14	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			11/11/21 12:14	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			11/11/21 12:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			11/11/21 12:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			11/11/21 12:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			11/11/21 12:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			11/11/21 12:14	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			11/11/21 12:14	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			11/11/21 12:14	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			11/11/21 12:14	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			11/11/21 12:14	1
Toluene	1.0	U	1.0	0.23	ug/Kg			11/11/21 12:14	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-812674/12

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			11/11/21 12:14	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/11/21 12:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			11/11/21 12:14	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			11/11/21 12:14	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			11/11/21 12:14	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			11/11/21 12:14	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			11/11/21 12:14	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			11/11/21 12:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		77 - 145		11/11/21 12:14	1
4-Bromofluorobenzene	97		70 - 139		11/11/21 12:14	1
Toluene-d8 (Surr)	96		80 - 120		11/11/21 12:14	1
Dibromofluoromethane (Surr)	115		48 - 150		11/11/21 12:14	1

Lab Sample ID: LCS 460-812674/6

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	23.7		ug/Kg		119	77 - 132
1,1-Dichloroethane	20.0	24.0		ug/Kg		120	76 - 129
1,2-Dichloroethane	20.0	20.0		ug/Kg		100	70 - 132
1,1,1-Trichloroethane	20.0	21.1		ug/Kg		105	78 - 132
2-Butanone (MEK)	100	83.7		ug/Kg		84	75 - 120
Acetone	100	96.4		ug/Kg		96	63 - 131
Benzene	20.0	22.8		ug/Kg		114	80 - 123
Carbon tetrachloride	20.0	20.2		ug/Kg		101	72 - 136
Chloroform	20.0	21.6		ug/Kg		108	79 - 126
Chlorobenzene	20.0	19.5		ug/Kg		98	80 - 120
cis-1,2-Dichloroethene	20.0	21.8		ug/Kg		109	80 - 123
Ethylbenzene	20.0	20.0		ug/Kg		100	80 - 120
Methylene Chloride	20.0	23.0		ug/Kg		115	76 - 127
m-Xylene & p-Xylene	20.0	19.8		ug/Kg		99	80 - 120
Methyl tert-butyl ether	20.0	21.8		ug/Kg		109	80 - 125
1,3-Dichlorobenzene	20.0	20.1		ug/Kg		100	80 - 120
1,4-Dichlorobenzene	20.0	20.0		ug/Kg		100	80 - 120
o-Xylene	20.0	19.8		ug/Kg		99	80 - 120
1,2-Dichlorobenzene	20.0	19.7		ug/Kg		99	80 - 120
1,4-Dioxane	400	387		ug/Kg		97	73 - 136
1,2,4-Trimethylbenzene	20.0	20.8		ug/Kg		104	79 - 120
Tetrachloroethene	20.0	18.3		ug/Kg		91	78 - 123
1,3,5-Trimethylbenzene	20.0	21.0		ug/Kg		105	79 - 120
Toluene	20.0	20.8		ug/Kg		104	80 - 120
N-Propylbenzene	20.0	23.4		ug/Kg		117	78 - 120
sec-Butylbenzene	20.0	22.7		ug/Kg		113	78 - 120
trans-1,2-Dichloroethene	20.0	23.1		ug/Kg		116	78 - 128
tert-Butylbenzene	20.0	21.0		ug/Kg		105	76 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-812674/6

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	21.9		ug/Kg		110	79 - 120
n-Butylbenzene	20.0	23.1		ug/Kg		115	77 - 123
Vinyl chloride	20.0	22.0		ug/Kg		110	56 - 147
Xylenes, Total	40.0	39.6		ug/Kg		99	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		77 - 145
4-Bromofluorobenzene	87		70 - 139
Toluene-d8 (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	100		48 - 150

Lab Sample ID: LCSD 460-812674/9

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	21.2		ug/Kg		106	77 - 132	11	30
1,1-Dichloroethane	20.0	22.1		ug/Kg		110	76 - 129	8	30
1,2-Dichloroethane	20.0	18.5		ug/Kg		92	70 - 132	8	30
1,1,1-Trichloroethane	20.0	19.0		ug/Kg		95	78 - 132	11	30
2-Butanone (MEK)	100	78.0		ug/Kg		78	75 - 120	7	30
Acetone	100	88.6		ug/Kg		89	63 - 131	8	30
Benzene	20.0	20.8		ug/Kg		104	80 - 123	9	30
Carbon tetrachloride	20.0	18.2		ug/Kg		91	72 - 136	10	30
Chloroform	20.0	19.8		ug/Kg		99	79 - 126	8	30
Chlorobenzene	20.0	17.7		ug/Kg		88	80 - 120	10	30
cis-1,2-Dichloroethene	20.0	20.2		ug/Kg		101	80 - 123	8	30
Ethylbenzene	20.0	18.2		ug/Kg		91	80 - 120	10	30
Methylene Chloride	20.0	21.3		ug/Kg		107	76 - 127	7	30
m-Xylene & p-Xylene	20.0	18.3		ug/Kg		92	80 - 120	8	30
Methyl tert-butyl ether	20.0	20.1		ug/Kg		100	80 - 125	8	30
1,3-Dichlorobenzene	20.0	17.8		ug/Kg		89	80 - 120	12	30
1,4-Dichlorobenzene	20.0	18.2		ug/Kg		91	80 - 120	10	30
o-Xylene	20.0	18.4		ug/Kg		92	80 - 120	7	30
1,2-Dichlorobenzene	20.0	17.6		ug/Kg		88	80 - 120	12	30
1,4-Dioxane	400	331		ug/Kg		83	73 - 136	16	30
1,2,4-Trimethylbenzene	20.0	18.5		ug/Kg		92	79 - 120	12	30
Tetrachloroethene	20.0	16.2		ug/Kg		81	78 - 123	12	30
1,3,5-Trimethylbenzene	20.0	18.7		ug/Kg		93	79 - 120	11	30
Toluene	20.0	18.7		ug/Kg		93	80 - 120	10	30
N-Propylbenzene	20.0	20.8		ug/Kg		104	78 - 120	12	30
sec-Butylbenzene	20.0	20.2		ug/Kg		101	78 - 120	11	30
trans-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	78 - 128	11	30
tert-Butylbenzene	20.0	18.8		ug/Kg		94	76 - 120	11	30
Trichloroethene	20.0	20.0		ug/Kg		100	79 - 120	9	30
n-Butylbenzene	20.0	20.1		ug/Kg		101	77 - 123	14	30
Vinyl chloride	20.0	21.8		ug/Kg		109	56 - 147	1	30
Xylenes, Total	40.0	36.7		ug/Kg		92	80 - 120	8	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-812674/9

Matrix: Solid

Analysis Batch: 812674

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 145
4-Bromofluorobenzene	89		70 - 139
Toluene-d8 (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	103		48 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-812613/1-A

Matrix: Solid

Analysis Batch: 812691

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812613

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
2-Methylphenol	330	U	330	12	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Pentachlorophenol	270	U	270	68	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Naphthalene	330	U	330	5.7	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Acenaphthylene	330	U	330	3.3	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Acenaphthene	330	U	330	9.4	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Dibenzofuran	330	U	330	4.6	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Fluorene	330	U	330	4.5	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Hexachlorobenzene	33	U	33	16	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Phenanthrene	330	U	330	5.8	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Anthracene	330	U	330	10	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Fluoranthene	330	U	330	12	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Pyrene	330	U	330	8.2	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Chrysene	330	U	330	5.6	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		11/11/21 00:28	11/11/21 09:55	1
1,4-Dioxane	33	U	33	29	ug/Kg		11/11/21 00:28	11/11/21 09:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	76		11 - 104	11/11/21 00:28	11/11/21 09:55	1
Phenol-d5 (Surr)	78		15 - 100	11/11/21 00:28	11/11/21 09:55	1
Terphenyl-d14 (Surr)	91		12 - 126	11/11/21 00:28	11/11/21 09:55	1
2,4,6-Tribromophenol (Surr)	98		10 - 123	11/11/21 00:28	11/11/21 09:55	1
2-Fluorophenol (Surr)	78		10 - 105	11/11/21 00:28	11/11/21 09:55	1
2-Fluorobiphenyl	86		14 - 103	11/11/21 00:28	11/11/21 09:55	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-812613/2-A

Matrix: Solid

Analysis Batch: 812691

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	2650		ug/Kg		80	63 - 110
2-Methylphenol	3330	2710		ug/Kg		81	63 - 108
3 & 4 Methylphenol	3330	2780		ug/Kg		83	61 - 108
Pentachlorophenol	6670	5470		ug/Kg		82	44 - 126
Naphthalene	3330	2960		ug/Kg		89	63 - 106
Acenaphthylene	3330	3020		ug/Kg		91	64 - 108
Acenaphthene	3330	2550		ug/Kg		77	53 - 110
Dibenzofuran	3330	3090		ug/Kg		93	65 - 108
Fluorene	3330	3060		ug/Kg		92	65 - 109
Hexachlorobenzene	3330	3280		ug/Kg		98	61 - 113
Phenanthrene	3330	2950		ug/Kg		88	66 - 112
Anthracene	3330	2890		ug/Kg		87	67 - 114
Fluoranthene	3330	3100		ug/Kg		93	61 - 106
Pyrene	3330	2910		ug/Kg		87	61 - 111
Benzo[a]anthracene	3330	2900		ug/Kg		87	67 - 115
Chrysene	3330	3050		ug/Kg		91	71 - 122
Benzo[b]fluoranthene	3330	3120		ug/Kg		93	70 - 125
Benzo[k]fluoranthene	3330	3020		ug/Kg		91	67 - 115
Benzo[a]pyrene	3330	3110		ug/Kg		93	73 - 123
Indeno[1,2,3-cd]pyrene	3330	3360		ug/Kg		101	62 - 121
Dibenz(a,h)anthracene	3330	3210		ug/Kg		96	66 - 119
Benzo[g,h,i]perylene	3330	3070		ug/Kg		92	61 - 113
1,4-Dioxane	3330	2380		ug/Kg		71	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	75		11 - 104
Phenol-d5 (Surr)	73		15 - 100
Terphenyl-d14 (Surr)	86		12 - 126
2,4,6-Tribromophenol (Surr)	101		10 - 123
2-Fluorophenol (Surr)	77		10 - 105
2-Fluorobiphenyl	85		14 - 103

Lab Sample ID: LCSD 460-812613/3-A

Matrix: Solid

Analysis Batch: 812691

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 812613

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	2770		ug/Kg		83	63 - 110	4	30
2-Methylphenol	3330	2760		ug/Kg		83	63 - 108	2	30
3 & 4 Methylphenol	3330	2860		ug/Kg		86	61 - 108	3	30
Pentachlorophenol	6670	5570		ug/Kg		84	44 - 126	2	30
Naphthalene	3330	3050		ug/Kg		91	63 - 106	3	30
Acenaphthylene	3330	2960		ug/Kg		89	64 - 108	2	30
Acenaphthene	3330	2480		ug/Kg		74	53 - 110	3	30
Dibenzofuran	3330	3050		ug/Kg		92	65 - 108	1	30
Fluorene	3330	3010		ug/Kg		90	65 - 109	2	30
Hexachlorobenzene	3330	3300		ug/Kg		99	61 - 113	0	30
Phenanthrene	3330	2990		ug/Kg		90	66 - 112	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-812613/3-A

Matrix: Solid

Analysis Batch: 812691

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 812613

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	3330	2940		ug/Kg		88	67 - 114	2	30
Fluoranthene	3330	3090		ug/Kg		93	61 - 106	0	30
Pyrene	3330	2860		ug/Kg		86	61 - 111	2	30
Benzo[a]anthracene	3330	2890		ug/Kg		87	67 - 115	0	30
Chrysene	3330	2980		ug/Kg		89	71 - 122	2	30
Benzo[b]fluoranthene	3330	3230		ug/Kg		97	70 - 125	4	30
Benzo[k]fluoranthene	3330	2930		ug/Kg		88	67 - 115	3	30
Benzo[a]pyrene	3330	3110		ug/Kg		93	73 - 123	0	30
Indeno[1,2,3-cd]pyrene	3330	3420		ug/Kg		103	62 - 121	2	30
Dibenz(a,h)anthracene	3330	3230		ug/Kg		97	66 - 119	1	30
Benzo[g,h,i]perylene	3330	3060		ug/Kg		92	61 - 113	0	30
1,4-Dioxane	3330	2340		ug/Kg		70	31 - 81	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Nitrobenzene-d5 (Surr)	77		11 - 104
Phenol-d5 (Surr)	77		15 - 100
Terphenyl-d14 (Surr)	84		12 - 126
2,4,6-Tribromophenol (Surr)	101		10 - 123
2-Fluorophenol (Surr)	79		10 - 105
2-Fluorobiphenyl	86		14 - 103

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 812691

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	370	U	3730	2950		ug/Kg	✱	79	63 - 110
2-Methylphenol	370	U	3730	2960		ug/Kg	✱	79	63 - 108
3 & 4 Methylphenol	370	U	3730	3070		ug/Kg	✱	82	61 - 108
Pentachlorophenol	300	U	7450	5720		ug/Kg	✱	77	44 - 126
Naphthalene	370	U	3730	3180		ug/Kg	✱	85	63 - 106
Acenaphthylene	370	U	3730	3290		ug/Kg	✱	88	64 - 108
Acenaphthene	370	U	3730	2730		ug/Kg	✱	73	53 - 110
Dibenzofuran	370	U	3730	3330		ug/Kg	✱	89	65 - 108
Fluorene	370	U	3730	3390		ug/Kg	✱	91	65 - 109
Hexachlorobenzene	37	U	3730	3510		ug/Kg	✱	94	61 - 113
Phenanthrene	23	J	3730	3140		ug/Kg	✱	84	66 - 112
Anthracene	370	U	3730	3090		ug/Kg	✱	83	67 - 114
Fluoranthene	66	J	3730	3270		ug/Kg	✱	86	61 - 106
Pyrene	64	J	3730	3270		ug/Kg	✱	86	61 - 111
Benzo[a]anthracene	45		3730	3110		ug/Kg	✱	82	67 - 115
Chrysene	38	J	3730	3310		ug/Kg	✱	88	71 - 122
Benzo[b]fluoranthene	54		3730	3480		ug/Kg	✱	92	70 - 125
Benzo[k]fluoranthene	16	J	3730	3210		ug/Kg	✱	86	67 - 115
Benzo[a]pyrene	41		3730	3390		ug/Kg	✱	90	73 - 123
Indeno[1,2,3-cd]pyrene	32	J	3730	3700		ug/Kg	✱	98	62 - 121
Dibenz(a,h)anthracene	37	U	3730	3530		ug/Kg	✱	95	66 - 119
Benzo[g,h,i]perylene	29	J	3730	3430		ug/Kg	✱	91	61 - 113

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 812691

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	37	U	3730	2220		ug/Kg	✱	60	31 - 81
Surrogate	MS %Recovery	MS Qualifier	Limits						
Nitrobenzene-d5 (Surr)	72		11 - 104						
Phenol-d5 (Surr)	74		15 - 100						
Terphenyl-d14 (Surr)	84		12 - 126						
2,4,6-Tribromophenol (Surr)	97		10 - 123						
2-Fluorophenol (Surr)	80		10 - 105						
2-Fluorobiphenyl	83		14 - 103						

Lab Sample ID: 460-246853-1 MSD

Matrix: Solid

Analysis Batch: 812691

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812613

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Phenol	370	U	3730	3040		ug/Kg	✱	82	63 - 110	3	30
2-Methylphenol	370	U	3730	3080		ug/Kg	✱	83	63 - 108	4	30
3 & 4 Methylphenol	370	U	3730	3230		ug/Kg	✱	87	61 - 108	5	30
Pentachlorophenol	300	U	7450	5930		ug/Kg	✱	80	44 - 126	4	30
Naphthalene	370	U	3730	3230		ug/Kg	✱	87	63 - 106	2	30
Acenaphthylene	370	U	3730	3360		ug/Kg	✱	90	64 - 108	2	30
Acenaphthene	370	U	3730	2820		ug/Kg	✱	76	53 - 110	3	30
Dibenzofuran	370	U	3730	3360		ug/Kg	✱	90	65 - 108	1	30
Fluorene	370	U	3730	3300		ug/Kg	✱	88	65 - 109	3	30
Hexachlorobenzene	37	U	3730	3610		ug/Kg	✱	97	61 - 113	3	30
Phenanthrene	23	J	3730	3220		ug/Kg	✱	86	66 - 112	2	30
Anthracene	370	U	3730	3200		ug/Kg	✱	86	67 - 114	3	30
Fluoranthene	66	J	3730	3360		ug/Kg	✱	88	61 - 106	3	30
Pyrene	64	J	3730	3300		ug/Kg	✱	87	61 - 111	1	30
Benzo[a]anthracene	45		3730	3210		ug/Kg	✱	85	67 - 115	3	30
Chrysene	38	J	3730	3370		ug/Kg	✱	89	71 - 122	2	30
Benzo[b]fluoranthene	54		3730	3590		ug/Kg	✱	95	70 - 125	3	30
Benzo[k]fluoranthene	16	J	3730	3300		ug/Kg	✱	88	67 - 115	3	30
Benzo[a]pyrene	41		3730	3470		ug/Kg	✱	92	73 - 123	3	30
Indeno[1,2,3-cd]pyrene	32	J	3730	3710		ug/Kg	✱	99	62 - 121	0	30
Dibenz(a,h)anthracene	37	U	3730	3630		ug/Kg	✱	97	66 - 119	3	30
Benzo[g,h,i]perylene	29	J	3730	3540		ug/Kg	✱	94	61 - 113	3	30
1,4-Dioxane	37	U	3730	2290		ug/Kg	✱	61	31 - 81	3	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5 (Surr)	74		11 - 104								
Phenol-d5 (Surr)	78		15 - 100								
Terphenyl-d14 (Surr)	87		12 - 126								
2,4,6-Tribromophenol (Surr)	99		10 - 123								
2-Fluorophenol (Surr)	81		10 - 105								
2-Fluorobiphenyl	85		14 - 103								

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-812574/1-A

Matrix: Solid

Analysis Batch: 812618

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812574

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Chlordane (technical)	67	U	67	16	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Chlordane (technical)	67	U	67	16	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endrin	6.7	U	6.7	0.96	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endrin	6.7	U	6.7	0.96	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Toxaphene	67	U	67	24	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
Toxaphene	67	U	67	24	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		11/10/21 17:15	11/11/21 06:25	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		11/10/21 17:15	11/11/21 06:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	53		10 - 150	11/10/21 17:15	11/11/21 06:25	1
DCB Decachlorobiphenyl	43		10 - 150	11/10/21 17:15	11/11/21 06:25	1
Tetrachloro-m-xylene	49		10 - 133	11/10/21 17:15	11/11/21 06:25	1
Tetrachloro-m-xylene	47		10 - 133	11/10/21 17:15	11/11/21 06:25	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 460-812574/2-A

Matrix: Solid

Analysis Batch: 812618

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812574

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	124		ug/Kg		93	70 - 140
4,4'-DDD	133	124		ug/Kg		93	70 - 140
4,4'-DDE	133	121		ug/Kg		91	71 - 137
4,4'-DDE	133	125		ug/Kg		94	71 - 137
4,4'-DDT	133	129		ug/Kg		97	63 - 131
4,4'-DDT	133	128		ug/Kg		96	63 - 131
Aldrin	133	122		ug/Kg		91	74 - 140
Aldrin	133	128		ug/Kg		96	74 - 140
alpha-BHC	133	124		ug/Kg		93	72 - 142
alpha-BHC	133	131		ug/Kg		98	72 - 142
beta-BHC	133	127		ug/Kg		96	65 - 137
beta-BHC	133	134		ug/Kg		100	65 - 137
delta-BHC	133	137		ug/Kg		103	70 - 143
delta-BHC	133	147		ug/Kg		111	70 - 143
Dieldrin	133	122		ug/Kg		92	70 - 135
Dieldrin	133	122		ug/Kg		91	70 - 135
Endosulfan I	133	119		ug/Kg		89	68 - 135
Endosulfan I	133	120		ug/Kg		90	68 - 135
Endosulfan II	133	123		ug/Kg		92	64 - 130
Endosulfan II	133	118		ug/Kg		89	64 - 130
Endosulfan sulfate	133	136		ug/Kg		102	66 - 143
Endosulfan sulfate	133	121		ug/Kg		91	66 - 143
Endrin	133	123		ug/Kg		92	68 - 136
Endrin	133	125		ug/Kg		94	68 - 136
Endrin aldehyde	133	126		ug/Kg		95	68 - 132
Endrin aldehyde	133	114		ug/Kg		85	68 - 132
Endrin ketone	133	157		ug/Kg		117	60 - 150
Endrin ketone	133	140		ug/Kg		105	60 - 150
gamma-BHC (Lindane)	133	126		ug/Kg		95	70 - 134
gamma-BHC (Lindane)	133	131		ug/Kg		98	70 - 134
Heptachlor	133	123		ug/Kg		93	69 - 134
Heptachlor	133	130		ug/Kg		98	69 - 134
Heptachlor epoxide	133	118		ug/Kg		89	70 - 135
Heptachlor epoxide	133	120		ug/Kg		90	70 - 135
Methoxychlor	133	120		ug/Kg		90	57 - 135
Methoxychlor	133	109		ug/Kg		81	57 - 135
cis-Chlordane	133	120		ug/Kg		90	70 - 136
cis-Chlordane	133	126		ug/Kg		95	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	62		10 - 150
DCB Decachlorobiphenyl	48		10 - 150
Tetrachloro-m-xylene	52		10 - 133
Tetrachloro-m-xylene	56		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-812574/3-A

Matrix: Solid

Analysis Batch: 812618

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 812574

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	133	133		ug/Kg		100	70 - 140	7	30
4,4'-DDD	133	134		ug/Kg		100	70 - 140	8	30
4,4'-DDE	133	130		ug/Kg		98	71 - 137	8	30
4,4'-DDE	133	135		ug/Kg		101	71 - 137	8	30
4,4'-DDT	133	139		ug/Kg		104	63 - 131	7	30
4,4'-DDT	133	138		ug/Kg		103	63 - 131	8	30
Aldrin	133	131		ug/Kg		99	74 - 140	8	30
Aldrin	133	138		ug/Kg		104	74 - 140	8	30
alpha-BHC	133	134		ug/Kg		100	72 - 142	8	30
alpha-BHC	133	144		ug/Kg		108	72 - 142	9	30
beta-BHC	133	139		ug/Kg		104	65 - 137	8	30
beta-BHC	133	145		ug/Kg		109	65 - 137	8	30
delta-BHC	133	151		ug/Kg		113	70 - 143	9	30
delta-BHC	133	162		ug/Kg		122	70 - 143	10	30
Dieldrin	133	132		ug/Kg		99	70 - 135	7	30
Dieldrin	133	132		ug/Kg		99	70 - 135	8	30
Endosulfan I	133	129		ug/Kg		97	68 - 135	8	30
Endosulfan I	133	130		ug/Kg		97	68 - 135	8	30
Endosulfan II	133	132		ug/Kg		99	64 - 130	7	30
Endosulfan II	133	127		ug/Kg		95	64 - 130	7	30
Endosulfan sulfate	133	144		ug/Kg		108	66 - 143	6	30
Endosulfan sulfate	133	130		ug/Kg		98	66 - 143	7	30
Endrin	133	132		ug/Kg		99	68 - 136	7	30
Endrin	133	134		ug/Kg		101	68 - 136	7	30
Endrin aldehyde	133	136		ug/Kg		102	68 - 132	8	30
Endrin aldehyde	133	123		ug/Kg		92	68 - 132	8	30
Endrin ketone	133	167		ug/Kg		125	60 - 150	7	30
Endrin ketone	133	149		ug/Kg		112	60 - 150	7	30
gamma-BHC (Lindane)	133	137		ug/Kg		103	70 - 134	8	30
gamma-BHC (Lindane)	133	143		ug/Kg		107	70 - 134	9	30
Heptachlor	133	134		ug/Kg		100	69 - 134	8	30
Heptachlor	133	141		ug/Kg		106	69 - 134	8	30
Heptachlor epoxide	133	128		ug/Kg		96	70 - 135	8	30
Heptachlor epoxide	133	128		ug/Kg		96	70 - 135	7	30
Methoxychlor	133	128		ug/Kg		96	57 - 135	6	30
Methoxychlor	133	116		ug/Kg		87	57 - 135	7	30
cis-Chlordane	133	131		ug/Kg		98	70 - 136	8	30
cis-Chlordane	133	136		ug/Kg		102	70 - 136	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	56		10 - 150
DCB Decachlorobiphenyl	44		10 - 150
Tetrachloro-m-xylene	52		10 - 133
Tetrachloro-m-xylene	52		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-246849-E-1-E MSD

Matrix: Solid

Analysis Batch: 812618

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 812574

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	7.4	U	148	137		ug/Kg	☼	93	70 - 140	2	30
4,4'-DDD	7.4	U	148	139		ug/Kg	☼	94	70 - 140	0	30
4,4'-DDE	7.4	U	148	135		ug/Kg	☼	91	71 - 137	3	30
4,4'-DDE	7.4	U	148	139		ug/Kg	☼	94	71 - 137	0	30
4,4'-DDT	7.4	U	148	142		ug/Kg	☼	96	63 - 131	0	30
4,4'-DDT	7.4	U	148	139		ug/Kg	☼	94	63 - 131	0	30
Aldrin	7.4	U	148	136		ug/Kg	☼	92	74 - 140	3	30
Aldrin	7.4	U	148	144		ug/Kg	☼	97	74 - 140	2	30
alpha-BHC	2.2	U	148	138		ug/Kg	☼	93	72 - 142	4	30
alpha-BHC	2.2	U	148	147		ug/Kg	☼	99	72 - 142	4	30
beta-BHC	2.2	U	148	142		ug/Kg	☼	96	65 - 137	5	30
beta-BHC	2.2	U	148	150		ug/Kg	☼	101	65 - 137	4	30
delta-BHC	2.2	U	148	152		ug/Kg	☼	103	70 - 143	4	30
delta-BHC	2.2	U	148	165		ug/Kg	☼	112	70 - 143	3	30
Dieldrin	2.2	U	148	137		ug/Kg	☼	92	70 - 135	2	30
Dieldrin	2.2	U	148	138		ug/Kg	☼	93	70 - 135	1	30
Endosulfan I	7.4	U	148	132		ug/Kg	☼	89	68 - 135	3	30
Endosulfan I	7.4	U	148	135		ug/Kg	☼	91	68 - 135	0	30
Endosulfan II	7.4	U	148	137		ug/Kg	☼	92	64 - 130	2	30
Endosulfan II	7.4	U	148	130		ug/Kg	☼	88	64 - 130	0	30
Endosulfan sulfate	7.4	U	148	148		ug/Kg	☼	100	66 - 143	2	30
Endosulfan sulfate	7.4	U	148	130		ug/Kg	☼	88	66 - 143	0	30
Endrin	7.4	U	148	132		ug/Kg	☼	89	68 - 136	3	30
Endrin	7.4	U	148	136		ug/Kg	☼	92	68 - 136	1	30
Endrin aldehyde	7.4	U	148	135		ug/Kg	☼	91	68 - 132	0	30
Endrin aldehyde	7.4	U	148	119		ug/Kg	☼	81	68 - 132	3	30
Endrin ketone	7.4	U	148	175		ug/Kg	☼	118	60 - 150	1	30
Endrin ketone	7.4	U	148	156		ug/Kg	☼	105	60 - 150	1	30
gamma-BHC (Lindane)	2.2	U	148	141		ug/Kg	☼	95	70 - 134	4	30
gamma-BHC (Lindane)	2.2	U	148	148		ug/Kg	☼	100	70 - 134	4	30
Heptachlor	7.4	U	148	137		ug/Kg	☼	92	69 - 134	3	30
Heptachlor	7.4	U	148	144		ug/Kg	☼	97	69 - 134	2	30
Heptachlor epoxide	7.4	U	148	133		ug/Kg	☼	89	70 - 135	3	30
Heptachlor epoxide	7.4	U	148	134		ug/Kg	☼	91	70 - 135	1	30
Methoxychlor	7.4	U	148	132		ug/Kg	☼	89	57 - 135	1	30
Methoxychlor	7.4	U	148	117		ug/Kg	☼	79	57 - 135	0	30
cis-Chlordane	7.4	U	148	135		ug/Kg	☼	91	70 - 136	3	30
cis-Chlordane	7.4	U	148	142		ug/Kg	☼	96	70 - 136	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	83		10 - 150
DCB Decachlorobiphenyl	65		10 - 150
Tetrachloro-m-xylene	67		10 - 133
Tetrachloro-m-xylene	70		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-246849-F-1-C MS

Matrix: Solid

Analysis Batch: 812618

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 812574

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	7.4	U	148	134		ug/Kg	☼	91	70 - 140
4,4'-DDD	7.4	U	148	139		ug/Kg	☼	94	70 - 140
4,4'-DDE	7.4	U	148	131		ug/Kg	☼	88	71 - 137
4,4'-DDE	7.4	U	148	140		ug/Kg	☼	94	71 - 137
4,4'-DDT	7.4	U	148	139		ug/Kg	☼	94	63 - 131
4,4'-DDT	7.4	U	148	141		ug/Kg	☼	95	63 - 131
Aldrin	7.4	U	148	131		ug/Kg	☼	89	74 - 140
Aldrin	7.4	U	148	141		ug/Kg	☼	95	74 - 140
alpha-BHC	2.2	U	148	133		ug/Kg	☼	90	72 - 142
alpha-BHC	2.2	U	148	141		ug/Kg	☼	95	72 - 142
beta-BHC	2.2	U	148	136		ug/Kg	☼	92	65 - 137
beta-BHC	2.2	U	148	144		ug/Kg	☼	97	65 - 137
delta-BHC	2.2	U	148	146		ug/Kg	☼	99	70 - 143
delta-BHC	2.2	U	148	160		ug/Kg	☼	108	70 - 143
Dieldrin	2.2	U	148	133		ug/Kg	☼	90	70 - 135
Dieldrin	2.2	U	148	137		ug/Kg	☼	92	70 - 135
Endosulfan I	7.4	U	148	129		ug/Kg	☼	87	68 - 135
Endosulfan I	7.4	U	148	134		ug/Kg	☼	91	68 - 135
Endosulfan II	7.4	U	148	134		ug/Kg	☼	90	64 - 130
Endosulfan II	7.4	U	148	131		ug/Kg	☼	88	64 - 130
Endosulfan sulfate	7.4	U	148	146		ug/Kg	☼	98	66 - 143
Endosulfan sulfate	7.4	U	148	131		ug/Kg	☼	88	66 - 143
Endrin	7.4	U	148	129		ug/Kg	☼	87	68 - 136
Endrin	7.4	U	148	135		ug/Kg	☼	91	68 - 136
Endrin aldehyde	7.4	U	148	134		ug/Kg	☼	90	68 - 132
Endrin aldehyde	7.4	U	148	123		ug/Kg	☼	83	68 - 132
Endrin ketone	7.4	U	148	173		ug/Kg	☼	117	60 - 150
Endrin ketone	7.4	U	148	157		ug/Kg	☼	106	60 - 150
gamma-BHC (Lindane)	2.2	U	148	135		ug/Kg	☼	91	70 - 134
gamma-BHC (Lindane)	2.2	U	148	143		ug/Kg	☼	96	70 - 134
Heptachlor	7.4	U	148	132		ug/Kg	☼	89	69 - 134
Heptachlor	7.4	U	148	141		ug/Kg	☼	95	69 - 134
Heptachlor epoxide	7.4	U	148	129		ug/Kg	☼	87	70 - 135
Heptachlor epoxide	7.4	U	148	133		ug/Kg	☼	90	70 - 135
Methoxychlor	7.4	U	148	130		ug/Kg	☼	88	57 - 135
Methoxychlor	7.4	U	148	118		ug/Kg	☼	79	57 - 135
cis-Chlordane	7.4	U	148	131		ug/Kg	☼	88	70 - 136
cis-Chlordane	7.4	U	148	142		ug/Kg	☼	96	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	80		10 - 150
DCB Decachlorobiphenyl	64		10 - 150
Tetrachloro-m-xylene	63		10 - 133
Tetrachloro-m-xylene	67		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-812802/1-A

Matrix: Solid

Analysis Batch: 812850

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812802

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Chlordane (technical)	67	U	67	16	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Chlordane (technical)	67	U	67	16	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endrin	6.7	U	6.7	0.96	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endrin	6.7	U	6.7	0.96	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Toxaphene	67	U	67	24	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
Toxaphene	67	U	67	24	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		11/11/21 18:09	11/12/21 05:21	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		11/11/21 18:09	11/12/21 05:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 150	11/11/21 18:09	11/12/21 05:21	1
DCB Decachlorobiphenyl	85		10 - 150	11/11/21 18:09	11/12/21 05:21	1
Tetrachloro-m-xylene	76		10 - 133	11/11/21 18:09	11/12/21 05:21	1
Tetrachloro-m-xylene	76		10 - 133	11/11/21 18:09	11/12/21 05:21	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 460-812802/2-A

Matrix: Solid

Analysis Batch: 812850

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812802

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	121		ug/Kg		91	70 - 140
4,4'-DDD	133	149		ug/Kg		112	70 - 140
4,4'-DDE	133	124		ug/Kg		93	71 - 137
4,4'-DDE	133	148		ug/Kg		111	71 - 137
4,4'-DDT	133	121		ug/Kg		91	63 - 131
4,4'-DDT	133	138		ug/Kg		103	63 - 131
Aldrin	133	124		ug/Kg		93	74 - 140
Aldrin	133	146		ug/Kg		109	74 - 140
alpha-BHC	133	125		ug/Kg		94	72 - 142
alpha-BHC	133	147		ug/Kg		110	72 - 142
beta-BHC	133	140		ug/Kg		105	65 - 137
beta-BHC	133	155		ug/Kg		116	65 - 137
delta-BHC	133	126		ug/Kg		95	70 - 143
delta-BHC	133	141		ug/Kg		106	70 - 143
Dieldrin	133	126		ug/Kg		95	70 - 135
Dieldrin	133	153		ug/Kg		115	70 - 135
Endosulfan I	133	130		ug/Kg		97	68 - 135
Endosulfan I	133	149		ug/Kg		112	68 - 135
Endosulfan II	133	137		ug/Kg		103	64 - 130
Endosulfan II	133	157		ug/Kg		118	64 - 130
Endosulfan sulfate	133	136		ug/Kg		102	66 - 143
Endosulfan sulfate	133	156		ug/Kg		117	66 - 143
Endrin	133	120		ug/Kg		90	68 - 136
Endrin	133	142		ug/Kg		107	68 - 136
Endrin aldehyde	133	134		ug/Kg		101	68 - 132
Endrin aldehyde	133	155		ug/Kg		116	68 - 132
Endrin ketone	133	145		ug/Kg		109	60 - 150
Endrin ketone	133	153		ug/Kg		115	60 - 150
gamma-BHC (Lindane)	133	130		ug/Kg		97	70 - 134
gamma-BHC (Lindane)	133	141		ug/Kg		106	70 - 134
Heptachlor	133	125		ug/Kg		94	69 - 134
Heptachlor	133	144		ug/Kg		108	69 - 134
Heptachlor epoxide	133	127		ug/Kg		95	70 - 135
Heptachlor epoxide	133	145		ug/Kg		109	70 - 135
Methoxychlor	133	117		ug/Kg		88	57 - 135
Methoxychlor	133	124		ug/Kg		93	57 - 135
cis-Chlordane	133	125		ug/Kg		94	70 - 136
cis-Chlordane	133	148		ug/Kg		111	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	75		10 - 150
DCB Decachlorobiphenyl	80		10 - 150
Tetrachloro-m-xylene	67		10 - 133
Tetrachloro-m-xylene	71		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-812802/3-A

Matrix: Solid

Analysis Batch: 812850

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 812802

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	133	108		ug/Kg		81	70 - 140	11	30
4,4'-DDD	133	138		ug/Kg		104	70 - 140	8	30
4,4'-DDE	133	111		ug/Kg		83	71 - 137	11	30
4,4'-DDE	133	136		ug/Kg		102	71 - 137	8	30
4,4'-DDT	133	109		ug/Kg		82	63 - 131	11	30
4,4'-DDT	133	128		ug/Kg		96	63 - 131	7	30
Aldrin	133	112		ug/Kg		84	74 - 140	10	30
Aldrin	133	134		ug/Kg		100	74 - 140	9	30
alpha-BHC	133	111		ug/Kg		84	72 - 142	11	30
alpha-BHC	133	134		ug/Kg		100	72 - 142	9	30
beta-BHC	133	123		ug/Kg		92	65 - 137	13	30
beta-BHC	133	142		ug/Kg		106	65 - 137	9	30
delta-BHC	133	113		ug/Kg		85	70 - 143	11	30
delta-BHC	133	129		ug/Kg		97	70 - 143	9	30
Dieldrin	133	113		ug/Kg		85	70 - 135	11	30
Dieldrin	133	142		ug/Kg		106	70 - 135	7	30
Endosulfan I	133	116		ug/Kg		87	68 - 135	11	30
Endosulfan I	133	138		ug/Kg		103	68 - 135	8	30
Endosulfan II	133	123		ug/Kg		92	64 - 130	11	30
Endosulfan II	133	146		ug/Kg		110	64 - 130	7	30
Endosulfan sulfate	133	122		ug/Kg		92	66 - 143	10	30
Endosulfan sulfate	133	146		ug/Kg		110	66 - 143	7	30
Endrin	133	107		ug/Kg		80	68 - 136	11	30
Endrin	133	132		ug/Kg		99	68 - 136	8	30
Endrin aldehyde	133	121		ug/Kg		91	68 - 132	11	30
Endrin aldehyde	133	145		ug/Kg		109	68 - 132	7	30
Endrin ketone	133	129		ug/Kg		97	60 - 150	12	30
Endrin ketone	133	143		ug/Kg		107	60 - 150	7	30
gamma-BHC (Lindane)	133	115		ug/Kg		87	70 - 134	12	30
gamma-BHC (Lindane)	133	129		ug/Kg		97	70 - 134	9	30
Heptachlor	133	112		ug/Kg		84	69 - 134	11	30
Heptachlor	133	132		ug/Kg		99	69 - 134	9	30
Heptachlor epoxide	133	114		ug/Kg		86	70 - 135	10	30
Heptachlor epoxide	133	133		ug/Kg		100	70 - 135	9	30
Methoxychlor	133	104		ug/Kg		78	57 - 135	11	30
Methoxychlor	133	116		ug/Kg		87	57 - 135	7	30
cis-Chlordane	133	112		ug/Kg		84	70 - 136	11	30
cis-Chlordane	133	136		ug/Kg		102	70 - 136	8	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	68		10 - 150
DCB Decachlorobiphenyl	74		10 - 150
Tetrachloro-m-xylene	62		10 - 133
Tetrachloro-m-xylene	65		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 812850

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812802

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	7.5	U	149	141		ug/Kg	⊛	94	70 - 140
4,4'-DDD	7.5	U	149	178		ug/Kg	⊛	119	70 - 140
4,4'-DDE	7.5	U	149	145		ug/Kg	⊛	97	71 - 137
4,4'-DDE	7.5	U	149	176		ug/Kg	⊛	118	71 - 137
4,4'-DDT	7.5	U	149	141		ug/Kg	⊛	95	63 - 131
4,4'-DDT	7.5	U	149	165		ug/Kg	⊛	111	63 - 131
Aldrin	7.5	U	149	144		ug/Kg	⊛	96	74 - 140
Aldrin	7.5	U	149	169		ug/Kg	⊛	114	74 - 140
alpha-BHC	2.2	U	149	71.1	*	ug/Kg	⊛	48	72 - 142
alpha-BHC	2.2	U	149	172		ug/Kg	⊛	116	72 - 142
beta-BHC	2.2	U	149	161		ug/Kg	⊛	108	65 - 137
beta-BHC	2.2	U	149	180		ug/Kg	⊛	121	65 - 137
delta-BHC	2.2	U	149	146		ug/Kg	⊛	98	70 - 143
delta-BHC	2.2	U	149	165		ug/Kg	⊛	111	70 - 143
Dieldrin	2.2	U	149	146		ug/Kg	⊛	98	70 - 135
Dieldrin	2.2	U	149	180		ug/Kg	⊛	121	70 - 135
Endosulfan I	7.5	U	149	150		ug/Kg	⊛	101	68 - 135
Endosulfan I	7.5	U	149	175		ug/Kg	⊛	117	68 - 135
Endosulfan II	7.5	U	149	157		ug/Kg	⊛	105	64 - 130
Endosulfan II	7.5	U	149	186		ug/Kg	⊛	125	64 - 130
Endosulfan sulfate	7.5	U	149	157		ug/Kg	⊛	106	66 - 143
Endosulfan sulfate	7.5	U	149	186		ug/Kg	⊛	125	66 - 143
Endrin	7.5	U	149	139		ug/Kg	⊛	93	68 - 136
Endrin	7.5	U	149	169		ug/Kg	⊛	113	68 - 136
Endrin aldehyde	7.5	U	149	153		ug/Kg	⊛	103	68 - 132
Endrin aldehyde	7.5	U	149	183		ug/Kg	⊛	123	68 - 132
Endrin ketone	7.5	U	149	168		ug/Kg	⊛	113	60 - 150
Endrin ketone	7.5	U	149	184		ug/Kg	⊛	123	60 - 150
gamma-BHC (Lindane)	2.2	U	149	151		ug/Kg	⊛	101	70 - 134
gamma-BHC (Lindane)	2.2	U	149	165		ug/Kg	⊛	111	70 - 134
Heptachlor	7.5	U	149	143		ug/Kg	⊛	96	69 - 134
Heptachlor	7.5	U	149	168		ug/Kg	⊛	113	69 - 134
Heptachlor epoxide	7.5	U	149	225	*	ug/Kg	⊛	151	70 - 135
Heptachlor epoxide	7.5	U	149	176		ug/Kg	⊛	118	70 - 135
Methoxychlor	7.5	U	149	136		ug/Kg	⊛	91	57 - 135
Methoxychlor	7.5	U	149	148		ug/Kg	⊛	99	57 - 135
cis-Chlordane	7.5	U	149	145		ug/Kg	⊛	98	70 - 136
cis-Chlordane	7.5	U	149	173		ug/Kg	⊛	116	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	79		10 - 150
DCB Decachlorobiphenyl	86		10 - 150
Tetrachloro-m-xylene	72		10 - 133
Tetrachloro-m-xylene	74		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-246853-1 MSD

Matrix: Solid

Analysis Batch: 812850

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812802

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	7.5	U	149	92.5	*	ug/Kg	☼	62	70 - 140	41	30
4,4'-DDD	7.5	U	149	117	*	ug/Kg	☼	79	70 - 140	41	30
4,4'-DDE	7.5	U	149	95.2	*	ug/Kg	☼	64	71 - 137	41	30
4,4'-DDE	7.5	U	149	117	*	ug/Kg	☼	78	71 - 137	41	30
4,4'-DDT	7.5	U	149	93.0	*	ug/Kg	☼	62	63 - 131	41	30
4,4'-DDT	7.5	U	149	109	*	ug/Kg	☼	73	63 - 131	41	30
Aldrin	7.5	U	149	96.9	*	ug/Kg	☼	65	74 - 140	39	30
Aldrin	7.5	U	149	113	*	ug/Kg	☼	76	74 - 140	40	30
alpha-BHC	2.2	U	149	97.4	*	ug/Kg	☼	65	72 - 142	56	30
alpha-BHC	2.2	U	149	115	*	ug/Kg	☼	77	72 - 142	48	30
beta-BHC	2.2	U	149	110	*	ug/Kg	☼	74	65 - 137	38	30
beta-BHC	2.2	U	149	121	*	ug/Kg	☼	81	65 - 137	39	30
delta-BHC	2.2	U	149	98.7	*	ug/Kg	☼	66	70 - 143	39	30
delta-BHC	2.2	U	149	110	*	ug/Kg	☼	74	70 - 143	40	30
Dieldrin	2.2	U	149	95.8	*	ug/Kg	☼	64	70 - 135	41	30
Dieldrin	2.2	U	149	119	*	ug/Kg	☼	80	70 - 135	41	30
Endosulfan I	7.5	U	149	99.1	*	ug/Kg	☼	66	68 - 135	41	30
Endosulfan I	7.5	U	149	116	*	ug/Kg	☼	78	68 - 135	40	30
Endosulfan II	7.5	U	149	104	*	ug/Kg	☼	70	64 - 130	40	30
Endosulfan II	7.5	U	149	123	*	ug/Kg	☼	83	64 - 130	41	30
Endosulfan sulfate	7.5	U	149	103	*	ug/Kg	☼	69	66 - 143	41	30
Endosulfan sulfate	7.5	U	149	123	*	ug/Kg	☼	83	66 - 143	40	30
Endrin	7.5	U	149	92.0	*	ug/Kg	☼	62	68 - 136	41	30
Endrin	7.5	U	149	112	*	ug/Kg	☼	75	68 - 136	41	30
Endrin aldehyde	7.5	U	149	101	*	ug/Kg	☼	68	68 - 132	41	30
Endrin aldehyde	7.5	U	149	121	*	ug/Kg	☼	81	68 - 132	41	30
Endrin ketone	7.5	U	149	111	*	ug/Kg	☼	74	60 - 150	41	30
Endrin ketone	7.5	U	149	121	*	ug/Kg	☼	81	60 - 150	41	30
gamma-BHC (Lindane)	2.2	U	149	102	*	ug/Kg	☼	68	70 - 134	39	30
gamma-BHC (Lindane)	2.2	U	149	110	*	ug/Kg	☼	74	70 - 134	40	30
Heptachlor	7.5	U	149	96.7	*	ug/Kg	☼	65	69 - 134	38	30
Heptachlor	7.5	U	149	112	*	ug/Kg	☼	75	69 - 134	40	30
Heptachlor epoxide	7.5	U	149	164	*	ug/Kg	☼	110	70 - 135	31	30
Heptachlor epoxide	7.5	U	149	118	*	ug/Kg	☼	79	70 - 135	39	30
Methoxychlor	7.5	U	149	89.6	*	ug/Kg	☼	60	57 - 135	41	30
Methoxychlor	7.5	U	149	98.7	*	ug/Kg	☼	66	57 - 135	40	30
cis-Chlordane	7.5	U	149	95.6	*	ug/Kg	☼	64	70 - 136	41	30
cis-Chlordane	7.5	U	149	115	*	ug/Kg	☼	77	70 - 136	40	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	77		10 - 150
DCB Decachlorobiphenyl	84		10 - 150
Tetrachloro-m-xylene	72		10 - 133
Tetrachloro-m-xylene	73		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-812571/1-A

Matrix: Solid

Analysis Batch: 812644

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1016	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1221	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1221	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1232	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1232	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1242	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1242	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1248	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1248	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1254	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1254	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1260	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1260	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor-1262	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor-1262	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1268	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Aroclor 1268	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		11/10/21 17:07	11/11/21 08:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		37 - 150	11/10/21 17:07	11/11/21 08:21	1
DCB Decachlorobiphenyl	96		37 - 150	11/10/21 17:07	11/11/21 08:21	1
Tetrachloro-m-xylene	90		54 - 150	11/10/21 17:07	11/11/21 08:21	1
Tetrachloro-m-xylene	88		54 - 150	11/10/21 17:07	11/11/21 08:21	1

Lab Sample ID: LCS 460-812571/2-A

Matrix: Solid

Analysis Batch: 812644

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	329		ug/Kg		99	65 - 133
Aroclor 1016	333	326		ug/Kg		98	65 - 133
Aroclor 1260	333	356		ug/Kg		107	71 - 150
Aroclor 1260	333	352		ug/Kg		106	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	60		37 - 150
DCB Decachlorobiphenyl	63		37 - 150
Tetrachloro-m-xylene	60		54 - 150
Tetrachloro-m-xylene	59		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-812571/3-A

Matrix: Solid

Analysis Batch: 812644

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 812571

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	387		ug/Kg		116	65 - 133	16	30
Aroclor 1016	333	377		ug/Kg		113	65 - 133	14	30
Aroclor 1260	333	400		ug/Kg		120	71 - 150	13	30
Aroclor 1260	333	405		ug/Kg		121	71 - 150	13	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	101		37 - 150
DCB Decachlorobiphenyl	106		37 - 150
Tetrachloro-m-xylene	99		54 - 150
Tetrachloro-m-xylene	99		54 - 150

Lab Sample ID: 460-246849-E-1-D MSD

Matrix: Solid

Analysis Batch: 812644

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 812571

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	74	U	371	329		ug/Kg	⊛	89	65 - 133	13	30
Aroclor 1016	74	U	371	312		ug/Kg	⊛	84	65 - 133	11	30
Aroclor 1260	74	U	371	358		ug/Kg	⊛	97	71 - 150	9	30
Aroclor 1260	74	U	371	346		ug/Kg	⊛	93	71 - 150	10	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	89		37 - 150
DCB Decachlorobiphenyl	92		37 - 150
Tetrachloro-m-xylene	83		54 - 150
Tetrachloro-m-xylene	80		54 - 150

Lab Sample ID: 460-246849-F-1-A MS

Matrix: Solid

Analysis Batch: 812644

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 812571

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	74	U	371	377		ug/Kg	⊛	102	65 - 133		
Aroclor 1016	74	U	371	347		ug/Kg	⊛	94	65 - 133		
Aroclor 1260	74	U	371	391		ug/Kg	⊛	106	71 - 150		
Aroclor 1260	74	U	371	382		ug/Kg	⊛	103	71 - 150		

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	97		37 - 150
DCB Decachlorobiphenyl	100		37 - 150
Tetrachloro-m-xylene	90		54 - 150
Tetrachloro-m-xylene	88		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-812573/1-A

Matrix: Solid

Analysis Batch: 812676

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812573

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1016	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1221	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1221	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1232	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1232	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1242	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1242	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1248	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1248	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1254	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1254	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1260	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1260	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor-1262	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor-1262	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1268	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Aroclor 1268	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		11/10/21 17:12	11/11/21 11:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	111		37 - 150	11/10/21 17:12	11/11/21 11:24	1
DCB Decachlorobiphenyl	118		37 - 150	11/10/21 17:12	11/11/21 11:24	1
Tetrachloro-m-xylene	100		54 - 150	11/10/21 17:12	11/11/21 11:24	1
Tetrachloro-m-xylene	105		54 - 150	11/10/21 17:12	11/11/21 11:24	1

Lab Sample ID: LCS 460-812573/2-A

Matrix: Solid

Analysis Batch: 812676

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812573

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	363		ug/Kg		109	65 - 133
Aroclor 1016	333	379		ug/Kg		114	65 - 133
Aroclor 1260	333	378		ug/Kg		113	71 - 150
Aroclor 1260	333	398		ug/Kg		119	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	110		37 - 150
DCB Decachlorobiphenyl	117		37 - 150
Tetrachloro-m-xylene	101		54 - 150
Tetrachloro-m-xylene	107		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-812573/3-A

Matrix: Solid

Analysis Batch: 812676

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 812573

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	382		ug/Kg		114	65 - 133	5	30
Aroclor 1016	333	409		ug/Kg		123	65 - 133	8	30
Aroclor 1260	333	410		ug/Kg		123	71 - 150	8	30
Aroclor 1260	333	427		ug/Kg		128	71 - 150	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	84		37 - 150
DCB Decachlorobiphenyl	88		37 - 150
Tetrachloro-m-xylene	81		54 - 150
Tetrachloro-m-xylene	86		54 - 150

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 812676

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812573

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	75	U	373	329		ug/Kg	⊛	88	65 - 133
Aroclor 1016	75	U	373	348		ug/Kg	⊛	93	65 - 133
Aroclor 1260	75	U	373	354		ug/Kg	⊛	95	71 - 150
Aroclor 1260	75	U	373	371		ug/Kg	⊛	100	71 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	92		37 - 150
DCB Decachlorobiphenyl	97		37 - 150
Tetrachloro-m-xylene	83		54 - 150
Tetrachloro-m-xylene	88		54 - 150

Lab Sample ID: 460-246853-1 MSD

Matrix: Solid

Analysis Batch: 812676

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812573

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	75	U	373	372		ug/Kg	⊛	100	65 - 133	12	30
Aroclor 1016	75	U	373	389		ug/Kg	⊛	104	65 - 133	11	30
Aroclor 1260	75	U	373	400		ug/Kg	⊛	107	71 - 150	12	30
Aroclor 1260	75	U	373	408		ug/Kg	⊛	109	71 - 150	9	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	103		37 - 150
DCB Decachlorobiphenyl	108		37 - 150
Tetrachloro-m-xylene	94		54 - 150
Tetrachloro-m-xylene	99		54 - 150

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-812612/1-A

Matrix: Solid

Analysis Batch: 812652

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812612

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		11/10/21 23:59	11/11/21 09:24	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		11/10/21 23:59	11/11/21 09:24	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	92		65 - 150				11/10/21 23:59	11/11/21 09:24	1
2,4-Dichlorophenylacetic acid	88		65 - 150				11/10/21 23:59	11/11/21 09:24	1

Lab Sample ID: LCS 460-812612/2-A

Matrix: Solid

Analysis Batch: 812652

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812612

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	8.33	10.1	J	ug/Kg		121	58 - 150
Silvex (2,4,5-TP)	8.33	11.3	J	ug/Kg		135	58 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	84		65 - 150				
2,4-Dichlorophenylacetic acid	73		65 - 150				

Lab Sample ID: LCSD 460-812612/3-A

Matrix: Solid

Analysis Batch: 812652

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 812612

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	8.33	10.6	J	ug/Kg		127	58 - 150	5	30
Silvex (2,4,5-TP)	8.33	12.0	J	ug/Kg		143	58 - 150	6	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	90		65 - 150						
2,4-Dichlorophenylacetic acid	90		65 - 150						

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 812653

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812612

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	37	U	9.32	20.4	J *	ug/Kg	☼	219	58 - 150
Silvex (2,4,5-TP)	37	U	9.32	19.1	J *	ug/Kg	☼	205	58 - 150
Surrogate	MS %Recovery	MS Qualifier	Limits						
2,4-Dichlorophenylacetic acid	127		65 - 150						
2,4-Dichlorophenylacetic acid	157	*	65 - 150						

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 460-246853-1 MSD

Matrix: Solid

Analysis Batch: 812653

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812612

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	37	U	9.32	20.0	J *	ug/Kg	☼	215	58 - 150	5	30
Silvex (2,4,5-TP)	37	U	9.32	21.2	J *	ug/Kg	☼	227	58 - 150	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
2,4-Dichlorophenylacetic acid	136		65 - 150								
2,4-Dichlorophenylacetic acid	171	*	65 - 150								

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-193810/1-B

Matrix: Solid

Analysis Batch: 194347

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 193810

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		11/11/21 17:15	11/14/21 00:29	1
	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	134		10 - 178				11/11/21 17:15	11/14/21 00:29	1
M2-6:2 FTS	112		10 - 182				11/11/21 17:15	11/14/21 00:29	1
13C5 PFHxA	125		11 - 138				11/11/21 17:15	11/14/21 00:29	1
13C4 PFHpA	132		15 - 139				11/11/21 17:15	11/14/21 00:29	1
13C8 PFOA	132		21 - 133				11/11/21 17:15	11/14/21 00:29	1
13C9 PFNA	132		15 - 145				11/11/21 17:15	11/14/21 00:29	1
13C6 PFDA	130		21 - 134				11/11/21 17:15	11/14/21 00:29	1
13C7 PFUnA	119		15 - 138				11/11/21 17:15	11/14/21 00:29	1
13C2-PFDoDA	119		28 - 126				11/11/21 17:15	11/14/21 00:29	1
13C2 PFTeDA	114		10 - 138				11/11/21 17:15	11/14/21 00:29	1
13C3 PFBS	123		23 - 130				11/11/21 17:15	11/14/21 00:29	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-193810/1-B

Matrix: Solid

Analysis Batch: 194347

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 193810

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	120		24 - 136	11/11/21 17:15	11/14/21 00:29	1
13C8 PFOS	124		31 - 130	11/11/21 17:15	11/14/21 00:29	1
d3-NMeFOSAA	112		10 - 172	11/11/21 17:15	11/14/21 00:29	1
d5-NEtFOSAA	131		10 - 176	11/11/21 17:15	11/14/21 00:29	1
13C8 FOSA	113		25 - 135	11/11/21 17:15	11/14/21 00:29	1
13C4 PFBA	128		12 - 137	11/11/21 17:15	11/14/21 00:29	1
13C5 PFPeA	125		12 - 135	11/11/21 17:15	11/14/21 00:29	1

Lab Sample ID: LCS 410-193810/2-B

Matrix: Solid

Analysis Batch: 194347

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 193810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.0	20.98		ug/Kg		84	61 - 147
Perfluoroheptanoic acid	25.0	22.42		ug/Kg		90	61 - 151
Perfluorooctanoic acid	25.0	20.74		ug/Kg		83	62 - 144
Perfluorononanoic acid	25.0	21.48		ug/Kg		86	62 - 148
Perfluorodecanoic acid	25.0	20.29		ug/Kg		81	62 - 142
Perfluorotridecanoic acid	25.0	22.60		ug/Kg		90	57 - 152
Perfluorotetradecanoic acid	25.0	21.55		ug/Kg		86	60 - 147
Perfluorobutanesulfonic acid	22.1	17.43		ug/Kg		79	62 - 137
Perfluorohexanesulfonic acid	22.8	19.61		ug/Kg		86	57 - 135
Perfluorooctanesulfonic acid	23.1	18.36		ug/Kg		79	48 - 134
NEtFOSAA	25.0	23.95		ug/Kg		96	50 - 140
NMeFOSAA	25.0	24.23		ug/Kg		97	53 - 149
Perfluoroheptanesulfonic acid	23.8	20.07		ug/Kg		84	67 - 138
Perfluorodecanesulfonic acid	24.1	19.60		ug/Kg		81	60 - 142
Perfluorooctanesulfonamide	25.0	25.89		ug/Kg		104	52 - 132
Perfluorobutanoic acid	25.0	20.72		ug/Kg		83	50 - 185
Perfluoroundecanoic acid	25.0	23.63		ug/Kg		95	62 - 144
Perfluorododecanoic acid	25.0	23.98		ug/Kg		96	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	23.16		ug/Kg		98	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	19.41		ug/Kg		81	50 - 147
Perfluoropentanoic acid	25.0	23.15		ug/Kg		93	69 - 144

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-8:2 FTS	108		10 - 178
M2-6:2 FTS	90		10 - 182
13C5 PFHxA	109		11 - 138
13C4 PFHpA	107		15 - 139
13C8 PFOA	110		21 - 133
13C9 PFNA	119		15 - 145
13C6 PFDA	111		21 - 134
13C7 PFUnA	97		15 - 138
13C2-PFDoDA	102		28 - 126
13C2 PFTeDA	109		10 - 138
13C3 PFBS	106		23 - 130
13C3 PFHxS	101		24 - 136
13C8 PFOS	110		31 - 130

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-193810/2-B

Matrix: Solid

Analysis Batch: 194347

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 193810

	LCS	LCS	
Isotope Dilution	%Recovery	Qualifier	Limits
d3-NMeFOSAA	110		10 - 172
d5-NEtFOSAA	107		10 - 176
13C8 FOSA	97		25 - 135
13C4 PFBA	107		12 - 137
13C5 PFPeA	111		12 - 135

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 194347

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 193810

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Perfluorohexanoic acid	0.64	U	27.1	21.48		ug/Kg	✱	79	61 - 147
Perfluoroheptanoic acid	0.64	U	27.1	23.76		ug/Kg	✱	88	61 - 151
Perfluorooctanoic acid	0.30	J	27.1	22.96		ug/Kg	✱	84	62 - 144
Perfluorononanoic acid	0.64	U	27.1	22.34		ug/Kg	✱	82	62 - 148
Perfluorodecanoic acid	0.64	U	27.1	21.06		ug/Kg	✱	78	62 - 142
Perfluorotridecanoic acid	0.64	U	27.1	21.37		ug/Kg	✱	79	57 - 152
Perfluorotetradecanoic acid	0.64	U	27.1	23.92		ug/Kg	✱	88	60 - 147
Perfluorobutanesulfonic acid	2.13	U	24.0	17.46		ug/Kg	✱	73	62 - 137
Perfluorohexanesulfonic acid	0.64	U	24.7	21.10		ug/Kg	✱	85	57 - 135
Perfluorooctanesulfonic acid	0.32	J	25.1	19.23		ug/Kg	✱	75	48 - 134
NEtFOSAA	2.13	U	27.1	22.05		ug/Kg	✱	81	50 - 140
NMeFOSAA	2.13	U	27.1	25.28		ug/Kg	✱	93	53 - 149
Perfluoroheptanesulfonic acid	0.64	U	25.8	21.96		ug/Kg	✱	85	67 - 138
Perfluorodecanesulfonic acid	0.64	U	26.2	20.07		ug/Kg	✱	77	60 - 142
Perfluorooctanesulfonamide	0.64	U	27.1	25.78		ug/Kg	✱	95	52 - 132
Perfluorobutanoic acid	2.13	U	27.1	21.83		ug/Kg	✱	80	50 - 185
Perfluoroundecanoic acid	0.64	U	27.1	21.92		ug/Kg	✱	81	62 - 144
Perfluorododecanoic acid	0.64	U	27.1	22.91		ug/Kg	✱	84	60 - 147
6:2 Fluorotelomer sulfonic acid	2.13	U	25.7	25.92		ug/Kg	✱	101	53 - 137
8:2 Fluorotelomer sulfonic acid	3.19	U	26.0	20.20		ug/Kg	✱	78	50 - 147
Perfluoropentanoic acid	0.64	U	27.1	24.86		ug/Kg	✱	92	69 - 144

	MS	MS	
Isotope Dilution	%Recovery	Qualifier	Limits
M2-8:2 FTS	118		10 - 178
M2-6:2 FTS	98		10 - 182
13C5 PFHxA	116		11 - 138
13C4 PFHpA	115		15 - 139
13C8 PFOA	117		21 - 133
13C9 PFNA	126		15 - 145
13C6 PFDA	121		21 - 134
13C7 PFUnA	107		15 - 138
13C2-PFDoDA	113		28 - 126
13C2 PFTeDA	110		10 - 138
13C3 PFBS	110		23 - 130
13C3 PFHxS	106		24 - 136
13C8 PFOS	113		31 - 130
d3-NMeFOSAA	66		10 - 172
d5-NEtFOSAA	74		10 - 176

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 194347

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 193810

<i>Isotope Dilution</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
13C8 FOSA	98		25 - 135
13C4 PFBA	112		12 - 137
13C5 PFPeA	113		12 - 135

Lab Sample ID: 460-246853-1 MSD

Matrix: Solid

Analysis Batch: 194347

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 193810

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
Perfluorohexanoic acid	0.64	U	26.1	21.89		ug/Kg	⊛	84	61 - 147	2	30
Perfluoroheptanoic acid	0.64	U	26.1	21.96		ug/Kg	⊛	84	61 - 151	8	30
Perfluorooctanoic acid	0.30	J	26.1	21.73		ug/Kg	⊛	82	62 - 144	6	30
Perfluorononanoic acid	0.64	U	26.1	21.08		ug/Kg	⊛	81	62 - 148	6	30
Perfluorodecanoic acid	0.64	U	26.1	20.48		ug/Kg	⊛	78	62 - 142	3	30
Perfluorotridecanoic acid	0.64	U	26.1	24.60		ug/Kg	⊛	94	57 - 152	14	30
Perfluorotetradecanoic acid	0.64	U	26.1	22.57		ug/Kg	⊛	86	60 - 147	6	30
Perfluorobutanesulfonic acid	2.13	U	23.1	17.20		ug/Kg	⊛	74	62 - 137	2	30
Perfluorohexanesulfonic acid	0.64	U	23.8	20.28		ug/Kg	⊛	85	57 - 135	4	30
Perfluorooctanesulfonic acid	0.32	J	24.2	19.04		ug/Kg	⊛	77	48 - 134	1	30
NEtFOSAA	2.13	U	26.1	23.67		ug/Kg	⊛	91	50 - 140	7	30
NMeFOSAA	2.13	U	26.1	23.13		ug/Kg	⊛	89	53 - 149	9	30
Perfluoroheptanesulfonic acid	0.64	U	24.9	21.78		ug/Kg	⊛	88	67 - 138	1	30
Perfluorodecanesulfonic acid	0.64	U	25.2	20.94		ug/Kg	⊛	83	60 - 142	4	30
Perfluorooctanesulfonamide	0.64	U	26.1	24.68		ug/Kg	⊛	94	52 - 132	4	30
Perfluorobutanoic acid	2.13	U	26.1	20.83		ug/Kg	⊛	80	50 - 185	5	30
Perfluoroundecanoic acid	0.64	U	26.1	21.50		ug/Kg	⊛	82	62 - 144	2	30
Perfluorododecanoic acid	0.64	U	26.1	23.25		ug/Kg	⊛	89	60 - 147	2	30
6:2 Fluorotelomer sulfonic acid	2.13	U	24.8	22.83		ug/Kg	⊛	92	53 - 137	13	30
8:2 Fluorotelomer sulfonic acid	3.19	U	25.0	20.98		ug/Kg	⊛	84	50 - 147	4	30
Perfluoropentanoic acid	0.64	U	26.1	23.67		ug/Kg	⊛	91	69 - 144	5	30

<i>Isotope Dilution</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
M2-8:2 FTS	111		10 - 178
M2-6:2 FTS	91		10 - 182
13C5 PFHxA	115		11 - 138
13C4 PFHpA	117		15 - 139
13C8 PFOA	115		21 - 133
13C9 PFNA	126		15 - 145
13C6 PFDA	120		21 - 134
13C7 PFUnA	107		15 - 138
13C2-PFDoDA	110		28 - 126
13C2 PFTeDA	112		10 - 138
13C3 PFBS	111		23 - 130
13C3 PFHxS	104		24 - 136
13C8 PFOS	118		31 - 130
d3-NMeFOSAA	47		10 - 172
d5-NEtFOSAA	55		10 - 176
13C8 FOSA	103		25 - 135
13C4 PFBA	112		12 - 137

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-246853-1 MSD
Matrix: Solid
Analysis Batch: 194347

Client Sample ID: 120_PE-1
Prep Type: Total/NA
Prep Batch: 193810

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
¹³ C5 PFPeA	112		12 - 135

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-813203/1-A
Matrix: Solid
Analysis Batch: 814065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 813203

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	0.50	U	0.50	0.045	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Arsenic	0.50	U	0.50	0.052	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Barium	1.0	U	1.0	0.073	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Beryllium	0.20	U	0.20	0.029	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Cadmium	0.50	U	0.50	0.057	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Chromium	1.0	U	1.0	0.13	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Copper	1.0	U	1.0	0.18	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Manganese	2.0	U	2.0	0.20	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Nickel	1.0	U	1.0	0.24	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Lead	0.30	U	0.30	0.10	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Selenium	0.63	U	0.63	0.064	mg/Kg		11/14/21 06:55	11/18/21 11:13	1
Zinc	4.0	U	4.0	1.5	mg/Kg		11/14/21 06:55	11/18/21 11:13	1

Lab Sample ID: LCSSRM 460-813203/2-A ^10
Matrix: Solid
Analysis Batch: 814065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 813203

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Silver	33.6	20.35		mg/Kg		60.6	48.2 - 73.5	
Arsenic	140	143.8		mg/Kg		102.7	82.9 - 117.9	
Barium	202	189.1		mg/Kg		93.6	81.2 - 118.3	
Beryllium	42.6	41.24		mg/Kg		96.8	81.0 - 119.0	
Cadmium	97.9	95.81		mg/Kg		97.9	80.0 - 119.5	
Chromium	60.4	57.39		mg/Kg		95.0	80.3 - 119.7	
Copper	122	121.2		mg/Kg		99.3	82.8 - 117.2	
Manganese	457	463.5		mg/Kg		101.4	79.6 - 120.6	
Nickel	151	151.2		mg/Kg		100.2	79.5 - 121.2	
Lead	56.7	58.56		mg/Kg		103.3	82.9 - 116.9	
Selenium	35.5	36.86		mg/Kg		103.8	77.5 - 122.3	
Zinc	186	182.5		mg/Kg		98.1	79.0 - 121.0	

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 814065

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 813203

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.1	U	5.59	5.10		mg/Kg	⊛	91	75 - 125
Arsenic	0.91	J	11.2	10.95		mg/Kg	⊛	90	75 - 125
Barium	8.8		11.2	19.85		mg/Kg	⊛	99	75 - 125
Beryllium	0.19	J	5.59	5.35		mg/Kg	⊛	92	75 - 125
Cadmium	1.1	U	5.59	4.97		mg/Kg	⊛	89	75 - 125
Chromium	7.2		11.2	18.51		mg/Kg	⊛	101	75 - 125
Copper	4.7		11.2	14.89		mg/Kg	⊛	92	75 - 125
Manganese	122		55.9	200.6	N	mg/Kg	⊛	140	75 - 125
Nickel	6.6		11.2	17.57		mg/Kg	⊛	98	75 - 125
Lead	3.2		5.59	8.95		mg/Kg	⊛	103	75 - 125
Selenium	1.4	U	11.2	9.75		mg/Kg	⊛	87	75 - 125
Zinc	16.2		55.9	68.51		mg/Kg	⊛	94	75 - 125

Lab Sample ID: 460-246853-1 DU

Matrix: Solid

Analysis Batch: 814065

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 813203

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.1	U	1.1	U	mg/Kg	⊛	NC	20
Arsenic	0.91	J	0.904	J	mg/Kg	⊛	0.8	20
Barium	8.8		9.62		mg/Kg	⊛	9	20
Beryllium	0.19	J	0.192	J	mg/Kg	⊛	0.2	20
Cadmium	1.1	U	1.1	U	mg/Kg	⊛	NC	20
Chromium	7.2		7.29		mg/Kg	⊛	1	20
Copper	4.7		4.68		mg/Kg	⊛	0.6	20
Manganese	122		125.3		mg/Kg	⊛	3	20
Nickel	6.6		6.76		mg/Kg	⊛	2	20
Lead	3.2		3.23		mg/Kg	⊛	0.5	20
Selenium	1.4	U	1.4	U	mg/Kg	⊛	NC	20
Zinc	16.2		16.83		mg/Kg	⊛	4	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-813959/1-A

Matrix: Solid

Analysis Batch: 814039

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 813959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		11/18/21 03:54	11/18/21 08:42	1

Lab Sample ID: LCSSRM 460-813959/2-A ^40

Matrix: Solid

Analysis Batch: 814039

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 813959

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	17.03		mg/Kg		103.2	74.5 - 124.8

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 814039

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 813959

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.018	U	0.0860	0.0943		mg/Kg	☆	110	80 - 120

Lab Sample ID: 460-246853-1 DU

Matrix: Solid

Analysis Batch: 814039

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 813959

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.018	U	0.00918	J	mg/Kg	☆	NC	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-812976/1-A

Matrix: Solid

Analysis Batch: 813113

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 812976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		11/12/21 14:41	11/14/21 12:44	1

Lab Sample ID: LCSi 460-812976/3-A

Matrix: Solid

Analysis Batch: 813113

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812976

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	643.8		mg/Kg		91	80 - 120

Lab Sample ID: LCSSRM 460-812976/2-A

Matrix: Solid

Analysis Batch: 813113

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812976

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	12.3	11.49		mg/Kg		93.1	84.0 - 114.6

Lab Sample ID: LCSSRM 460-812976/4-A

Matrix: Solid

Analysis Batch: 813113

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 812976

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	102.5		mg/Kg		78.3	61.3 - 138.2

Lab Sample ID: 460-246853-1 MSI

Matrix: Solid

Analysis Batch: 813113

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812976

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.2	U	791	677.1		mg/Kg	☆	86	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-246853-1 MSS

Matrix: Solid

Analysis Batch: 813113

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812976

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.2	U	44.7	38.86		mg/Kg	✱	87	75 - 125

Lab Sample ID: 460-246853-1 DU

Matrix: Solid

Analysis Batch: 813113

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 812976

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.2	U	2.2	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-813057/1-A

Matrix: Solid

Analysis Batch: 813454

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 813057

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		11/13/21 00:13	11/15/21 23:26	1

Lab Sample ID: LCSSRM 460-813057/2-A ^20

Matrix: Solid

Analysis Batch: 813454

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 813057

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	95.3	74.40		mg/Kg		78.1	23.7 - 123.8

Lab Sample ID: 460-246853-1 MS

Matrix: Solid

Analysis Batch: 813454

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 813057

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.26	U	5.37	6.57	N	mg/Kg	✱	122	11 - 108

Lab Sample ID: 460-246853-1 MSD

Matrix: Solid

Analysis Batch: 813454

Client Sample ID: 120_PE-1

Prep Type: Total/NA

Prep Batch: 813057

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	0.26	U	4.47	5.05	N	mg/Kg	✱	113	11 - 108	26	40

Lab Sample ID: MRL 460-813350/1-A

Matrix: Solid

Analysis Batch: 813454

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 813350

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0110		mg/L		110	50 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method: Moisture - Percent Moisture

Lab Sample ID: 460-246850-E-17 DU

Matrix: Solid

Analysis Batch: 812839

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	5.8		5.7		%		3	20
Percent Solids	94.2		94.3		%		0.2	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

GC/MS VOA

Prep Batch: 812487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	5035	
460-246853-2	121_PE-1-NE	Total/NA	Solid	5035	
460-246853-3	122_PE-1-SE	Total/NA	Solid	5035	
460-246853-4	123_PE-1-SW	Total/NA	Solid	5035	
460-246853-5	124_PE-1-NW	Total/NA	Solid	5035	
460-246853-1 MS	120_PE-1	Total/NA	Solid	5035	
460-246853-1 MSD	120_PE-1	Total/NA	Solid	5035	

Analysis Batch: 812578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-6	125_TB-9	Total/NA	Water	8260D	
MB 460-812578/8	Method Blank	Total/NA	Water	8260D	
LCS 460-812578/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-812578/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 812674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	8260D	812487
460-246853-2	121_PE-1-NE	Total/NA	Solid	8260D	812487
460-246853-3	122_PE-1-SE	Total/NA	Solid	8260D	812487
460-246853-4	123_PE-1-SW	Total/NA	Solid	8260D	812487
460-246853-5	124_PE-1-NW	Total/NA	Solid	8260D	812487
MB 460-812674/12	Method Blank	Total/NA	Solid	8260D	
LCS 460-812674/6	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-812674/9	Lab Control Sample Dup	Total/NA	Solid	8260D	
460-246853-1 MS	120_PE-1	Total/NA	Solid	8260D	812487
460-246853-1 MSD	120_PE-1	Total/NA	Solid	8260D	812487

GC/MS Semi VOA

Prep Batch: 812613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	3546	
460-246853-2	121_PE-1-NE	Total/NA	Solid	3546	
460-246853-3	122_PE-1-SE	Total/NA	Solid	3546	
460-246853-4	123_PE-1-SW	Total/NA	Solid	3546	
460-246853-5	124_PE-1-NW	Total/NA	Solid	3546	
MB 460-812613/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-812613/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-812613/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246853-1 MS	120_PE-1	Total/NA	Solid	3546	
460-246853-1 MSD	120_PE-1	Total/NA	Solid	3546	

Analysis Batch: 812691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	8270E	812613
460-246853-2	121_PE-1-NE	Total/NA	Solid	8270E	812613
460-246853-3	122_PE-1-SE	Total/NA	Solid	8270E	812613
460-246853-4	123_PE-1-SW	Total/NA	Solid	8270E	812613
460-246853-5	124_PE-1-NW	Total/NA	Solid	8270E	812613
MB 460-812613/1-A	Method Blank	Total/NA	Solid	8270E	812613

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

GC/MS Semi VOA (Continued)

Analysis Batch: 812691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-812613/2-A	Lab Control Sample	Total/NA	Solid	8270E	812613
LCSD 460-812613/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	812613
460-246853-1 MS	120_PE-1	Total/NA	Solid	8270E	812613
460-246853-1 MSD	120_PE-1	Total/NA	Solid	8270E	812613

Analysis Batch: 812831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-5	124_PE-1-NW	Total/NA	Solid	8270E	812613
460-246853-5	124_PE-1-NW	Total/NA	Solid	8270E	812613

GC Semi VOA

Prep Batch: 812571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-2	121_PE-1-NE	Total/NA	Solid	3546	
460-246853-3	122_PE-1-SE	Total/NA	Solid	3546	
460-246853-4	123_PE-1-SW	Total/NA	Solid	3546	
460-246853-5	124_PE-1-NW	Total/NA	Solid	3546	
MB 460-812571/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-812571/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-812571/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246849-E-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
460-246849-F-1-A MS	Matrix Spike	Total/NA	Solid	3546	

Prep Batch: 812573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	3546	
MB 460-812573/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-812573/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-812573/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246853-1 MS	120_PE-1	Total/NA	Solid	3546	
460-246853-1 MSD	120_PE-1	Total/NA	Solid	3546	

Prep Batch: 812574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-2	121_PE-1-NE	Total/NA	Solid	3546	
460-246853-3	122_PE-1-SE	Total/NA	Solid	3546	
460-246853-4	123_PE-1-SW	Total/NA	Solid	3546	
460-246853-5	124_PE-1-NW	Total/NA	Solid	3546	
MB 460-812574/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-812574/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-812574/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246849-E-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
460-246849-F-1-C MS	Matrix Spike	Total/NA	Solid	3546	

Prep Batch: 812612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	8151A	
460-246853-2	121_PE-1-NE	Total/NA	Solid	8151A	
460-246853-3	122_PE-1-SE	Total/NA	Solid	8151A	
460-246853-4	123_PE-1-SW	Total/NA	Solid	8151A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

GC Semi VOA (Continued)

Prep Batch: 812612 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-5	124_PE-1-NW	Total/NA	Solid	8151A	
MB 460-812612/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-812612/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-812612/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-246853-1 MS	120_PE-1	Total/NA	Solid	8151A	
460-246853-1 MSD	120_PE-1	Total/NA	Solid	8151A	

Analysis Batch: 812618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-2	121_PE-1-NE	Total/NA	Solid	8081B	812574
460-246853-3	122_PE-1-SE	Total/NA	Solid	8081B	812574
MB 460-812574/1-A	Method Blank	Total/NA	Solid	8081B	812574
LCS 460-812574/2-A	Lab Control Sample	Total/NA	Solid	8081B	812574
LCSD 460-812574/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	812574
460-246849-E-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8081B	812574
460-246849-F-1-C MS	Matrix Spike	Total/NA	Solid	8081B	812574

Analysis Batch: 812644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-2	121_PE-1-NE	Total/NA	Solid	8082A	812571
460-246853-3	122_PE-1-SE	Total/NA	Solid	8082A	812571
460-246853-4	123_PE-1-SW	Total/NA	Solid	8082A	812571
460-246853-5	124_PE-1-NW	Total/NA	Solid	8082A	812571
MB 460-812571/1-A	Method Blank	Total/NA	Solid	8082A	812571
LCS 460-812571/2-A	Lab Control Sample	Total/NA	Solid	8082A	812571
LCSD 460-812571/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	812571
460-246849-E-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	812571
460-246849-F-1-A MS	Matrix Spike	Total/NA	Solid	8082A	812571

Analysis Batch: 812652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-812612/1-A	Method Blank	Total/NA	Solid	8151A	812612
LCS 460-812612/2-A	Lab Control Sample	Total/NA	Solid	8151A	812612
LCSD 460-812612/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	812612

Analysis Batch: 812653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	8151A	812612
460-246853-2	121_PE-1-NE	Total/NA	Solid	8151A	812612
460-246853-3	122_PE-1-SE	Total/NA	Solid	8151A	812612
460-246853-4	123_PE-1-SW	Total/NA	Solid	8151A	812612
460-246853-5	124_PE-1-NW	Total/NA	Solid	8151A	812612
460-246853-1 MS	120_PE-1	Total/NA	Solid	8151A	812612
460-246853-1 MSD	120_PE-1	Total/NA	Solid	8151A	812612

Analysis Batch: 812676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	8082A	812573
MB 460-812573/1-A	Method Blank	Total/NA	Solid	8082A	812573
LCS 460-812573/2-A	Lab Control Sample	Total/NA	Solid	8082A	812573
LCSD 460-812573/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	812573

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

GC Semi VOA (Continued)

Analysis Batch: 812676 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1 MS	120_PE-1	Total/NA	Solid	8082A	812573
460-246853-1 MSD	120_PE-1	Total/NA	Solid	8082A	812573

Prep Batch: 812802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	3546	
MB 460-812802/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-812802/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-812802/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-246853-1 MS	120_PE-1	Total/NA	Solid	3546	
460-246853-1 MSD	120_PE-1	Total/NA	Solid	3546	

Analysis Batch: 812850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	8081B	812802
460-246853-4	123_PE-1-SW	Total/NA	Solid	8081B	812574
460-246853-5	124_PE-1-NW	Total/NA	Solid	8081B	812574
MB 460-812802/1-A	Method Blank	Total/NA	Solid	8081B	812802
LCS 460-812802/2-A	Lab Control Sample	Total/NA	Solid	8081B	812802
LCSD 460-812802/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	812802
460-246853-1 MS	120_PE-1	Total/NA	Solid	8081B	812802
460-246853-1 MSD	120_PE-1	Total/NA	Solid	8081B	812802

LCMS

Prep Batch: 193810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	SHAKE	
460-246853-2	121_PE-1-NE	Total/NA	Solid	SHAKE	
460-246853-3	122_PE-1-SE	Total/NA	Solid	SHAKE	
460-246853-4	123_PE-1-SW	Total/NA	Solid	SHAKE	
460-246853-5	124_PE-1-NW	Total/NA	Solid	SHAKE	
MB 410-193810/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-193810/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-246853-1 MS	120_PE-1	Total/NA	Solid	SHAKE	
460-246853-1 MSD	120_PE-1	Total/NA	Solid	SHAKE	

Cleanup Batch: 193891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	Extract Aliquot	193810
460-246853-2	121_PE-1-NE	Total/NA	Solid	Extract Aliquot	193810
460-246853-3	122_PE-1-SE	Total/NA	Solid	Extract Aliquot	193810
460-246853-4	123_PE-1-SW	Total/NA	Solid	Extract Aliquot	193810
460-246853-5	124_PE-1-NW	Total/NA	Solid	Extract Aliquot	193810
MB 410-193810/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	193810
LCS 410-193810/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	193810
460-246853-1 MS	120_PE-1	Total/NA	Solid	Extract Aliquot	193810
460-246853-1 MSD	120_PE-1	Total/NA	Solid	Extract Aliquot	193810

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

LCMS

Analysis Batch: 194347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	537 IDA	193891
460-246853-2	121_PE-1-NE	Total/NA	Solid	537 IDA	193891
460-246853-3	122_PE-1-SE	Total/NA	Solid	537 IDA	193891
460-246853-4	123_PE-1-SW	Total/NA	Solid	537 IDA	193891
460-246853-5	124_PE-1-NW	Total/NA	Solid	537 IDA	193891
MB 410-193810/1-B	Method Blank	Total/NA	Solid	537 IDA	193891
LCS 410-193810/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	193891
460-246853-1 MS	120_PE-1	Total/NA	Solid	537 IDA	193891
460-246853-1 MSD	120_PE-1	Total/NA	Solid	537 IDA	193891

Metals

Prep Batch: 813203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	3050B	
460-246853-2	121_PE-1-NE	Total/NA	Solid	3050B	
460-246853-3	122_PE-1-SE	Total/NA	Solid	3050B	
460-246853-4	123_PE-1-SW	Total/NA	Solid	3050B	
460-246853-5	124_PE-1-NW	Total/NA	Solid	3050B	
MB 460-813203/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-813203/2-A ^1	Lab Control Sample	Total/NA	Solid	3050B	
460-246853-1 MS	120_PE-1	Total/NA	Solid	3050B	
460-246853-1 DU	120_PE-1	Total/NA	Solid	3050B	

Prep Batch: 813959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	7471B	
460-246853-2	121_PE-1-NE	Total/NA	Solid	7471B	
460-246853-3	122_PE-1-SE	Total/NA	Solid	7471B	
460-246853-4	123_PE-1-SW	Total/NA	Solid	7471B	
460-246853-5	124_PE-1-NW	Total/NA	Solid	7471B	
MB 460-813959/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-813959/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-246853-1 MS	120_PE-1	Total/NA	Solid	7471B	
460-246853-1 DU	120_PE-1	Total/NA	Solid	7471B	

Analysis Batch: 814039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	7471B	813959
460-246853-2	121_PE-1-NE	Total/NA	Solid	7471B	813959
460-246853-3	122_PE-1-SE	Total/NA	Solid	7471B	813959
460-246853-4	123_PE-1-SW	Total/NA	Solid	7471B	813959
460-246853-5	124_PE-1-NW	Total/NA	Solid	7471B	813959
MB 460-813959/1-A	Method Blank	Total/NA	Solid	7471B	813959
LCSSRM 460-813959/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	813959
460-246853-1 MS	120_PE-1	Total/NA	Solid	7471B	813959
460-246853-1 DU	120_PE-1	Total/NA	Solid	7471B	813959

Analysis Batch: 814065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	6020B	813203

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Metals (Continued)

Analysis Batch: 814065 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-2	121_PE-1-NE	Total/NA	Solid	6020B	813203
460-246853-3	122_PE-1-SE	Total/NA	Solid	6020B	813203
460-246853-4	123_PE-1-SW	Total/NA	Solid	6020B	813203
460-246853-5	124_PE-1-NW	Total/NA	Solid	6020B	813203
MB 460-813203/1-A	Method Blank	Total/NA	Solid	6020B	813203
LCSSRM 460-813203/2-A ^1	Lab Control Sample	Total/NA	Solid	6020B	813203
460-246853-1 MS	120_PE-1	Total/NA	Solid	6020B	813203
460-246853-1 DU	120_PE-1	Total/NA	Solid	6020B	813203

General Chemistry

Analysis Batch: 812839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	Moisture	
460-246853-2	121_PE-1-NE	Total/NA	Solid	Moisture	
460-246853-3	122_PE-1-SE	Total/NA	Solid	Moisture	
460-246853-4	123_PE-1-SW	Total/NA	Solid	Moisture	
460-246853-5	124_PE-1-NW	Total/NA	Solid	Moisture	
460-246853-1 MS	120_PE-1	Total/NA	Solid	Moisture	
460-246853-1 MSD	120_PE-1	Total/NA	Solid	Moisture	
460-246850-E-17 DU	Duplicate	Total/NA	Solid	Moisture	

Analysis Batch: 812873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	7196A	
460-246853-2	121_PE-1-NE	Total/NA	Solid	7196A	
460-246853-3	122_PE-1-SE	Total/NA	Solid	7196A	
460-246853-4	123_PE-1-SW	Total/NA	Solid	7196A	
460-246853-5	124_PE-1-NW	Total/NA	Solid	7196A	

Prep Batch: 812976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	3060A	
460-246853-2	121_PE-1-NE	Total/NA	Solid	3060A	
460-246853-3	122_PE-1-SE	Total/NA	Solid	3060A	
460-246853-4	123_PE-1-SW	Total/NA	Solid	3060A	
460-246853-5	124_PE-1-NW	Total/NA	Solid	3060A	
MB 460-812976/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-812976/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-812976/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-812976/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-246853-1 MSI	120_PE-1	Total/NA	Solid	3060A	
460-246853-1 MSS	120_PE-1	Total/NA	Solid	3060A	
460-246853-1 DU	120_PE-1	Total/NA	Solid	3060A	

Prep Batch: 813057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	9012B	
460-246853-2	121_PE-1-NE	Total/NA	Solid	9012B	
460-246853-3	122_PE-1-SE	Total/NA	Solid	9012B	
460-246853-4	123_PE-1-SW	Total/NA	Solid	9012B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

General Chemistry (Continued)

Prep Batch: 813057 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-5	124_PE-1-NW	Total/NA	Solid	9012B	
MB 460-813057/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-813057/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-246853-1 MS	120_PE-1	Total/NA	Solid	9012B	
460-246853-1 MSD	120_PE-1	Total/NA	Solid	9012B	

Analysis Batch: 813113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	7196A	812976
460-246853-2	121_PE-1-NE	Total/NA	Solid	7196A	812976
460-246853-3	122_PE-1-SE	Total/NA	Solid	7196A	812976
460-246853-4	123_PE-1-SW	Total/NA	Solid	7196A	812976
460-246853-5	124_PE-1-NW	Total/NA	Solid	7196A	812976
MB 460-812976/1-A	Method Blank	Total/NA	Solid	7196A	812976
LCSI 460-812976/3-A	Lab Control Sample	Total/NA	Solid	7196A	812976
LCSSRM 460-812976/2-A	Lab Control Sample	Total/NA	Solid	7196A	812976
LCSSRM 460-812976/4-A	Lab Control Sample	Total/NA	Solid	7196A	812976
460-246853-1 MSI	120_PE-1	Total/NA	Solid	7196A	812976
460-246853-1 MSS	120_PE-1	Total/NA	Solid	7196A	812976
460-246853-1 DU	120_PE-1	Total/NA	Solid	7196A	812976

Prep Batch: 813350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-813350/1-A	Lab Control Sample	Total/NA	Solid	SM 4500 CN C	

Analysis Batch: 813454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-246853-1	120_PE-1	Total/NA	Solid	9012B	813057
460-246853-2	121_PE-1-NE	Total/NA	Solid	9012B	813057
460-246853-3	122_PE-1-SE	Total/NA	Solid	9012B	813057
460-246853-4	123_PE-1-SW	Total/NA	Solid	9012B	813057
460-246853-5	124_PE-1-NW	Total/NA	Solid	9012B	813057
MB 460-813057/1-A	Method Blank	Total/NA	Solid	9012B	813057
LCSSRM 460-813057/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	813057
MRL 460-813350/1-A	Lab Control Sample	Total/NA	Solid	9012B	813350
460-246853-1 MS	120_PE-1	Total/NA	Solid	9012B	813057
460-246853-1 MSD	120_PE-1	Total/NA	Solid	9012B	813057

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 120_PE-1

Date Collected: 11/08/21 10:15

Date Received: 11/08/21 19:30

Lab Sample ID: 460-246853-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	812873	11/12/21 06:03	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	812839	11/11/21 23:40	MIE	TAL EDI

Client Sample ID: 120_PE-1

Date Collected: 11/08/21 10:15

Date Received: 11/08/21 19:30

Lab Sample ID: 460-246853-1

Matrix: Solid

Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			812487	11/10/21 09:56	YXG	TAL EDI
Total/NA	Analysis	8260D		1	812674	11/11/21 18:31	EMM	TAL EDI
Total/NA	Prep	3546			812613	11/11/21 00:28	GXY	TAL EDI
Total/NA	Analysis	8270E		1	812691	11/11/21 14:37	DAN	TAL EDI
Total/NA	Prep	3546			812802	11/11/21 18:09	ARA	TAL EDI
Total/NA	Analysis	8081B		1	812850	11/12/21 05:37	FAM	TAL EDI
Total/NA	Prep	3546			812573	11/10/21 17:12	ARA	TAL EDI
Total/NA	Analysis	8082A		1	812676	11/11/21 11:45	JHP	TAL EDI
Total/NA	Prep	8151A			812612	11/10/21 23:59	AFR	TAL EDI
Total/NA	Analysis	8151A		1	812653	11/11/21 12:01	SAK	TAL EDI
Total/NA	Prep	SHAKE			193810	11/11/21 17:15	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			193891	11/11/21 21:32	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	194347	11/14/21 00:51	QD9Y	ELLE
Total/NA	Prep	3050B			813203	11/14/21 06:55	SXC	TAL EDI
Total/NA	Analysis	6020B		2	814065	11/18/21 11:29	MDC	TAL EDI
Total/NA	Prep	7471B			813959	11/18/21 03:54	TJS	TAL EDI
Total/NA	Analysis	7471B		1	814039	11/18/21 08:45	TJS	TAL EDI
Total/NA	Prep	3060A			812976	11/12/21 14:41	OXG	TAL EDI
Total/NA	Analysis	7196A		1	813113	11/14/21 12:44	OXG	TAL EDI
Total/NA	Prep	9012B			813057	11/13/21 00:13	VBG	TAL EDI
Total/NA	Analysis	9012B		1	813454	11/15/21 23:33	VBG	TAL EDI

Client Sample ID: 121_PE-1-NE

Date Collected: 11/08/21 10:30

Date Received: 11/08/21 19:30

Lab Sample ID: 460-246853-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	812873	11/12/21 06:03	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	812839	11/11/21 23:40	MIE	TAL EDI

Client Sample ID: 121_PE-1-NE

Date Collected: 11/08/21 10:30

Date Received: 11/08/21 19:30

Lab Sample ID: 460-246853-2

Matrix: Solid

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			812487	11/10/21 09:58	YXG	TAL EDI
Total/NA	Analysis	8260D		1	812674	11/11/21 19:15	EMM	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 121_PE-1-NE

Lab Sample ID: 460-246853-2

Date Collected: 11/08/21 10:30

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			812613	11/11/21 00:28	GXY	TAL EDI
Total/NA	Analysis	8270E		1	812691	11/11/21 11:07	DAN	TAL EDI
Total/NA	Prep	3546			812574	11/10/21 17:15	ARA	TAL EDI
Total/NA	Analysis	8081B		1	812618	11/11/21 13:12	FAM	TAL EDI
Total/NA	Prep	3546			812571	11/10/21 17:07	ARA	TAL EDI
Total/NA	Analysis	8082A		1	812644	11/11/21 11:58	JHP	TAL EDI
Total/NA	Prep	8151A			812612	11/10/21 23:59	AFR	TAL EDI
Total/NA	Analysis	8151A		1	812653	11/11/21 12:16	SAK	TAL EDI
Total/NA	Prep	SHAKE			193810	11/11/21 17:15	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			193891	11/11/21 21:32	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	194347	11/14/21 01:25	QD9Y	ELLE
Total/NA	Prep	3050B			813203	11/14/21 06:55	SXC	TAL EDI
Total/NA	Analysis	6020B		2	814065	11/18/21 12:07	MDC	TAL EDI
Total/NA	Prep	7471B			813959	11/18/21 03:54	TJS	TAL EDI
Total/NA	Analysis	7471B		1	814039	11/18/21 09:17	TJS	TAL EDI
Total/NA	Prep	3060A			812976	11/12/21 14:41	OXG	TAL EDI
Total/NA	Analysis	7196A		1	813113	11/14/21 12:44	OXG	TAL EDI
Total/NA	Prep	9012B			813057	11/13/21 00:13	VBG	TAL EDI
Total/NA	Analysis	9012B		1	813454	11/15/21 23:35	VBG	TAL EDI

Client Sample ID: 122_PE-1-SE

Lab Sample ID: 460-246853-3

Date Collected: 11/08/21 10:40

Matrix: Solid

Date Received: 11/08/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	812873	11/12/21 06:03	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	812839	11/11/21 23:40	MIE	TAL EDI

Client Sample ID: 122_PE-1-SE

Lab Sample ID: 460-246853-3

Date Collected: 11/08/21 10:40

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			812487	11/10/21 09:58	YXG	TAL EDI
Total/NA	Analysis	8260D		1	812674	11/11/21 19:38	EMM	TAL EDI
Total/NA	Prep	3546			812613	11/11/21 00:28	GXY	TAL EDI
Total/NA	Analysis	8270E		1	812691	11/11/21 11:30	DAN	TAL EDI
Total/NA	Prep	3546			812574	11/10/21 17:15	ARA	TAL EDI
Total/NA	Analysis	8081B		1	812618	11/11/21 13:24	FAM	TAL EDI
Total/NA	Prep	3546			812571	11/10/21 17:07	ARA	TAL EDI
Total/NA	Analysis	8082A		1	812644	11/11/21 12:14	JHP	TAL EDI
Total/NA	Prep	8151A			812612	11/10/21 23:59	AFR	TAL EDI
Total/NA	Analysis	8151A		1	812653	11/11/21 12:30	SAK	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 122_PE-1-SE

Lab Sample ID: 460-246853-3

Date Collected: 11/08/21 10:40

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			193810	11/11/21 17:15	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			193891	11/11/21 21:32	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	194347	11/14/21 01:36	QD9Y	ELLE
Total/NA	Prep	3050B			813203	11/14/21 06:55	SXC	TAL EDI
Total/NA	Analysis	6020B		2	814065	11/18/21 12:09	MDC	TAL EDI
Total/NA	Prep	7471B			813959	11/18/21 03:54	TJS	TAL EDI
Total/NA	Analysis	7471B		1	814039	11/18/21 09:19	TJS	TAL EDI
Total/NA	Prep	3060A			812976	11/12/21 14:41	OXG	TAL EDI
Total/NA	Analysis	7196A		1	813113	11/14/21 13:32	OXG	TAL EDI
Total/NA	Prep	9012B			813057	11/13/21 00:13	VBG	TAL EDI
Total/NA	Analysis	9012B		1	813454	11/15/21 23:36	VBG	TAL EDI

Client Sample ID: 123_PE-1-SW

Lab Sample ID: 460-246853-4

Date Collected: 11/08/21 10:50

Matrix: Solid

Date Received: 11/08/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	812873	11/12/21 06:03	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	812839	11/11/21 23:40	MIE	TAL EDI

Client Sample ID: 123_PE-1-SW

Lab Sample ID: 460-246853-4

Date Collected: 11/08/21 10:50

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			812487	11/10/21 09:59	YXG	TAL EDI
Total/NA	Analysis	8260D		1	812674	11/11/21 20:00	EMM	TAL EDI
Total/NA	Prep	3546			812613	11/11/21 00:28	GXY	TAL EDI
Total/NA	Analysis	8270E		1	812691	11/11/21 14:14	DAN	TAL EDI
Total/NA	Prep	3546			812574	11/10/21 17:15	ARA	TAL EDI
Total/NA	Analysis	8081B		1	812850	11/12/21 06:25	FAM	TAL EDI
Total/NA	Prep	3546			812571	11/10/21 17:07	ARA	TAL EDI
Total/NA	Analysis	8082A		1	812644	11/11/21 12:31	JHP	TAL EDI
Total/NA	Prep	8151A			812612	11/10/21 23:59	AFR	TAL EDI
Total/NA	Analysis	8151A		1	812653	11/11/21 12:45	SAK	TAL EDI
Total/NA	Prep	SHAKE			193810	11/11/21 17:15	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			193891	11/11/21 21:32	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	194347	11/14/21 01:47	QD9Y	ELLE
Total/NA	Prep	3050B			813203	11/14/21 06:55	SXC	TAL EDI
Total/NA	Analysis	6020B		2	814065	11/18/21 12:11	MDC	TAL EDI
Total/NA	Prep	7471B			813959	11/18/21 03:54	TJS	TAL EDI
Total/NA	Analysis	7471B		1	814039	11/18/21 09:25	TJS	TAL EDI
Total/NA	Prep	3060A			812976	11/12/21 14:41	OXG	TAL EDI
Total/NA	Analysis	7196A		1	813113	11/14/21 13:32	OXG	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 123_PE-1-SW

Lab Sample ID: 460-246853-4

Date Collected: 11/08/21 10:50

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			813057	11/13/21 00:13	VBG	TAL EDI
Total/NA	Analysis	9012B		1	813454	11/15/21 23:37	VBG	TAL EDI

Client Sample ID: 124_PE-1-NW

Lab Sample ID: 460-246853-5

Date Collected: 11/08/21 11:00

Matrix: Solid

Date Received: 11/08/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	812873	11/12/21 06:03	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	812839	11/11/21 23:40	MIE	TAL EDI

Client Sample ID: 124_PE-1-NW

Lab Sample ID: 460-246853-5

Date Collected: 11/08/21 11:00

Matrix: Solid

Date Received: 11/08/21 19:30

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			812487	11/10/21 10:00	YXG	TAL EDI
Total/NA	Analysis	8260D		1	812674	11/11/21 20:23	EMM	TAL EDI
Total/NA	Prep	3546			812613	11/11/21 00:28	GXY	TAL EDI
Total/NA	Analysis	8270E		5	812831	11/12/21 08:37	MME	TAL EDI
Total/NA	Prep	3546			812613	11/11/21 00:28	GXY	TAL EDI
Total/NA	Analysis	8270E		50	812831	11/12/21 09:00	MME	TAL EDI
Total/NA	Prep	3546			812613	11/11/21 00:28	GXY	TAL EDI
Total/NA	Analysis	8270E		1	812691	11/11/21 20:10	DAN	TAL EDI
Total/NA	Prep	3546			812574	11/10/21 17:15	ARA	TAL EDI
Total/NA	Analysis	8081B		1	812850	11/12/21 06:40	FAM	TAL EDI
Total/NA	Prep	3546			812571	11/10/21 17:07	ARA	TAL EDI
Total/NA	Analysis	8082A		1	812644	11/11/21 12:47	JHP	TAL EDI
Total/NA	Prep	8151A			812612	11/10/21 23:59	AFR	TAL EDI
Total/NA	Analysis	8151A		1	812653	11/11/21 13:00	SAK	TAL EDI
Total/NA	Prep	SHAKE			193810	11/11/21 17:15	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			193891	11/11/21 21:32	K9VR	ELLE
Total/NA	Analysis	537 IDA		1	194347	11/14/21 01:58	QD9Y	ELLE
Total/NA	Prep	3050B			813203	11/14/21 06:55	SXC	TAL EDI
Total/NA	Analysis	6020B		2	814065	11/18/21 12:14	MDC	TAL EDI
Total/NA	Prep	7471B			813959	11/18/21 03:54	TJS	TAL EDI
Total/NA	Analysis	7471B		1	814039	11/18/21 09:26	TJS	TAL EDI
Total/NA	Prep	3060A			812976	11/12/21 14:41	OXG	TAL EDI
Total/NA	Analysis	7196A		1	813113	11/14/21 13:32	OXG	TAL EDI
Total/NA	Prep	9012B			813057	11/13/21 00:13	VBG	TAL EDI
Total/NA	Analysis	9012B		1	813454	11/15/21 23:38	VBG	TAL EDI

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Client Sample ID: 125_TB-9

Lab Sample ID: 460-246853-6

Date Collected: 11/08/21 00:00

Matrix: Water

Date Received: 11/08/21 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	812578	11/10/21 20:39	MZS	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	12-09-21
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-10-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-10-22
Minnesota	NELAP	042-999-487	01-05-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	02-17-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-10-22
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-31-22
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	11-14-21
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	12-20-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-246853-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-246853-1	120_PE-1	Solid	11/08/21 10:15	11/08/21 19:30
460-246853-2	121_PE-1-NE	Solid	11/08/21 10:30	11/08/21 19:30
460-246853-3	122_PE-1-SE	Solid	11/08/21 10:40	11/08/21 19:30
460-246853-4	123_PE-1-SW	Solid	11/08/21 10:50	11/08/21 19:30
460-246853-5	124_PE-1-NW	Solid	11/08/21 11:00	11/08/21 19:30
460-246853-6	125_TB-9	Water	11/08/21 00:00	11/08/21 19:30

246853

Number of Coolers		IR Gun #		Cooler Temperatures			
				RAW		CORRECTED	
Cooler #1:	3	1.5	1.5	Cooler #4:	C	Cooler #7:	C
Cooler #2:	C	C	C	Cooler #5:	C	Cooler #8:	C
Cooler #3:	C	C	C	Cooler #6:	C	Cooler #9:	C

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

EDS-WI-038, Rev 4.1

EDS-WI-038

Initials:

3

Date:

12/5/11

THE RESULTS
OF THE
STUDY
WILL BE
PUBLISHED
IN THE
JOURNAL
OF THE
ROYAL
SOCIETY
OF MEDICINE
IN THE
FUTURE



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-246853-1

Login Number: 246853

List Source: Eurofins Edison

List Number: 1

Creator: Khlungprakhon, Sukanya

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-246853-1

Login Number: 246853

List Number: 2

Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 11/11/21 12:27 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-248550-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

3/4/2022 4:46:44 PM

Grace Chang, Project Manager II
(732)593-2579

Grace.Chang@Eurofinset.com

Designee for

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Grace Chang
Project Manager II
3/4/2022 4:46:44 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	9
Client Sample Results	10
Surrogate Summary	15
Isotope Dilution Summary	17
QC Sample Results	18
QC Association Summary	43
Lab Chronicle	47
Certification Summary	48
Method Summary	50
Sample Summary	51
Chain of Custody	52
Receipt Checklists	55



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Job ID: 460-248550-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-248550-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 12/06/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.5 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 12/08/2021 and analyzed on 12/09/2021.

The continuing calibration verification (CCV) associated with batch 460-817833 recovered above the upper control limit for Carbon tetrachloride and trans-1,2-Dichloroethene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 127_TB-10 (460-248550-2) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 12/09/2021.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Job ID: 460-248550-1 (Continued)

Laboratory: Eurofins Edison (Continued)

SW-846 Methods 8270E. The samples were prepared on 12/08/2021 and analyzed on 12/09/2021.

Benzo[k]fluoranthene and Pyrene failed the recovery criteria high for LCSD 460-817789/3-A. Refer to the QC report for details.

1,4-Dioxane failed the recovery criteria high for the MS of sample 460-248552-60 in batch 460-817868.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 12/08/2021 and analyzed on 12/09/2021.

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 12/08/2021 and analyzed on 12/09/2021.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 12/08/2021 and analyzed on 12/09/2021.

The closing continuing calibration verification (CCVC) associated with batch 460-817951 recovered above the upper control limit for 2,4,5-T on the secondary column. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. (CCV 460-817951/16) and (CCV 460-817951/28)

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 12/09/2021 and analyzed on 12/10/2021.

The recovery for the labeled isotope(s) in the following sample: 126_PE-1-NW_120621 (460-248550-1) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

The recovery for the labeled isotope(s) in the method blank associate for the following sample: 126_PE-1-NW_120621 (460-248550-1) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the method blank, the data is reported.

No difficulties were encountered during the PFAS analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Job ID: 460-248550-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 12/12/2021 and analyzed on 12/13/2021.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 12/10/2021 and analyzed on 12/11/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 12/10/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 12/21/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 12/12/2021.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Sample 126_PE-1-NW_120621 (460-248550-1) was analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 12/10/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Client Sample ID: 126_PE-1-NW_120621

Lab Sample ID: 460-248550-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methylene Chloride	1.1	J	1.7	0.99	ug/Kg	1	✳		8260D	Total/NA
Arsenic	1.6		1.1	0.12	mg/Kg	1	✳		6020B	Total/NA
Barium	25.2		2.3	0.17	mg/Kg	1	✳		6020B	Total/NA
Beryllium	0.39	J	0.46	0.065	mg/Kg	1	✳		6020B	Total/NA
Chromium	9.0		2.3	0.30	mg/Kg	1	✳		6020B	Total/NA
Copper	6.7		2.3	0.42	mg/Kg	1	✳		6020B	Total/NA
Manganese	465		4.6	0.46	mg/Kg	1	✳		6020B	Total/NA
Nickel	8.3		2.3	0.54	mg/Kg	1	✳		6020B	Total/NA
Lead	5.3		0.68	0.23	mg/Kg	1	✳		6020B	Total/NA
Selenium	0.16	J	1.4	0.15	mg/Kg	1	✳		6020B	Total/NA
Zinc	23.4		9.1	3.5	mg/Kg	1	✳		6020B	Total/NA
Mercury	0.015	J	0.018	0.0085	mg/Kg	1	✳		7471B	Total/NA
Cr (III)	9.0		2.0	2.0	mg/Kg	1			7196A	Total/NA

Client Sample ID: 127_TB-10

Lab Sample ID: 460-248550-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Client Sample ID: 126_PE-1-NW_120621

Lab Sample ID: 460-248550-1

Date Collected: 12/06/21 08:45

Matrix: Solid

Date Received: 12/06/21 18:00

Percent Solids: 84.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.86	U	0.86	0.20	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,1-Dichloroethane	0.86	U	0.86	0.18	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,1-Dichloroethene	0.86	U	0.86	0.19	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,2,4-Trimethylbenzene	0.86	U	0.86	0.21	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,2-Dichlorobenzene	0.86	U	0.86	0.31	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,2-Dichloroethane	0.86	U	0.86	0.26	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,3,5-Trimethylbenzene	0.86	U	0.86	0.27	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,3-Dichlorobenzene	0.86	U	0.86	0.31	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,4-Dichlorobenzene	0.86	U	0.86	0.19	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
1,4-Dioxane	86	U	86	7.9	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
2-Butanone (MEK)	4.3	U	4.3	0.32	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Acetone	5.2	U	5.2	4.9	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Benzene	0.86	U	0.86	0.22	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Carbon tetrachloride	0.86	U	0.86	0.33	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Chlorobenzene	0.86	U	0.86	0.15	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Chloroform	0.86	U	0.86	0.84	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
cis-1,2-Dichloroethene	0.86	U	0.86	0.31	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Ethylbenzene	0.86	U	0.86	0.17	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Methyl tert-butyl ether	0.86	U	0.86	0.44	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Methylene Chloride	1.1	J	1.7	0.99	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
n-Butylbenzene	0.86	U	0.86	0.25	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
N-Propylbenzene	0.86	U	0.86	0.15	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
sec-Butylbenzene	0.86	U	0.86	0.25	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
tert-Butylbenzene	0.86	U	0.86	0.24	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Tetrachloroethene	0.86	U	0.86	0.26	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Toluene	0.86	U	0.86	0.20	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
trans-1,2-Dichloroethene	0.86	U	0.86	0.21	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Trichloroethene	0.86	U	0.86	0.28	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Vinyl chloride	0.86	U	0.86	0.47	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1
Xylenes, Total	1.7	U	1.7	0.55	ug/Kg	☆	12/08/21 13:03	12/09/21 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 145	12/08/21 13:03	12/09/21 16:51	1
4-Bromofluorobenzene	101		70 - 139	12/08/21 13:03	12/09/21 16:51	1
Dibromofluoromethane (Surr)	108		48 - 150	12/08/21 13:03	12/09/21 16:51	1
Toluene-d8 (Surr)	98		80 - 120	12/08/21 13:03	12/09/21 16:51	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
2-Methylphenol	390	U	390	15	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
Pentachlorophenol	320	U	320	80	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
Naphthalene	390	U	390	6.8	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
Acenaphthylene	390	U	390	3.9	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
Acenaphthene	390	U	390	11	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
Dibenzofuran	390	U	390	5.5	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
Fluorene	390	U	390	5.3	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
Hexachlorobenzene	39	U	39	19	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1
Phenanthrene	390	U	390	6.9	ug/Kg	☆	12/08/21 21:38	12/09/21 11:49	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Client Sample ID: 126_PE-1-NW_120621

Lab Sample ID: 460-248550-1

Date Collected: 12/06/21 08:45

Matrix: Solid

Date Received: 12/06/21 18:00

Percent Solids: 84.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	390	U	390	12	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Fluoranthene	390	U	390	14	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Pyrene	390	U *	390	9.7	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Benzo[a]anthracene	39	U	39	14	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Chrysene	390	U	390	6.6	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Benzo[b]fluoranthene	39	U	39	10	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Benzo[k]fluoranthene	39	U *	39	7.7	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Benzo[a]pyrene	39	U	39	10	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Indeno[1,2,3-cd]pyrene	39	U	39	15	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
Benzo[g,h,i]perylene	390	U	390	12	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1
1,4-Dioxane	39	U	39	34	ug/Kg	✱	12/08/21 21:38	12/09/21 11:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	81		11 - 104	12/08/21 21:38	12/09/21 11:49	1
Phenol-d5 (Surr)	86		15 - 100	12/08/21 21:38	12/09/21 11:49	1
Terphenyl-d14 (Surr)	89		12 - 126	12/08/21 21:38	12/09/21 11:49	1
2,4,6-Tribromophenol (Surr)	72		10 - 123	12/08/21 21:38	12/09/21 11:49	1
2-Fluorophenol (Surr)	87		10 - 105	12/08/21 21:38	12/09/21 11:49	1
2-Fluorobiphenyl	84		14 - 103	12/08/21 21:38	12/09/21 11:49	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.9	U	7.9	1.4	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
4,4'-DDE	7.9	U	7.9	0.94	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
4,4'-DDT	7.9	U	7.9	1.5	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Aldrin	7.9	U	7.9	1.2	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
alpha-BHC	2.4	U	2.4	0.81	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
beta-BHC	2.4	U	2.4	0.89	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Chlordane (technical)	79	U	79	19	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Endosulfan I	7.9	U	7.9	1.2	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Endosulfan II	7.9	U	7.9	2.0	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Endosulfan sulfate	7.9	U	7.9	1.0	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Endrin	7.9	U	7.9	1.1	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Endrin aldehyde	7.9	U	7.9	1.9	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Endrin ketone	7.9	U	7.9	1.5	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
gamma-BHC (Lindane)	2.4	U	2.4	0.73	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Heptachlor	7.9	U	7.9	0.94	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Heptachlor epoxide	7.9	U	7.9	1.2	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Methoxychlor	7.9	U	7.9	1.8	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
Toxaphene	79	U	79	29	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1
cis-Chlordane	7.9	U	7.9	1.3	ug/Kg	✱	12/08/21 17:08	12/09/21 09:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		10 - 150	12/08/21 17:08	12/09/21 09:13	1
DCB Decachlorobiphenyl	94		10 - 150	12/08/21 17:08	12/09/21 09:13	1
Tetrachloro-m-xylene	84		10 - 133	12/08/21 17:08	12/09/21 09:13	1
Tetrachloro-m-xylene	83		10 - 133	12/08/21 17:08	12/09/21 09:13	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Client Sample ID: 126_PE-1-NW_120621

Lab Sample ID: 460-248550-1

Date Collected: 12/06/21 08:45

Matrix: Solid

Date Received: 12/06/21 18:00

Percent Solids: 84.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Aroclor 1221	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Aroclor 1232	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Aroclor 1242	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Aroclor 1248	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Aroclor 1254	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Aroclor 1260	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Aroclor-1262	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Aroclor 1268	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1
Polychlorinated biphenyls, Total	79	U	79	21	ug/Kg	✱	12/08/21 16:28	12/09/21 23:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		37 - 150	12/08/21 16:28	12/09/21 23:01	1
DCB Decachlorobiphenyl	98		37 - 150	12/08/21 16:28	12/09/21 23:01	1
Tetrachloro-m-xylene	89		54 - 150	12/08/21 16:28	12/09/21 23:01	1
Tetrachloro-m-xylene	87		54 - 150	12/08/21 16:28	12/09/21 23:01	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	✱	12/08/21 23:59	12/09/21 22:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	117		65 - 150	12/08/21 23:59	12/09/21 22:01	1
2,4-Dichlorophenylacetic acid	127		65 - 150	12/08/21 23:59	12/09/21 22:01	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluoroheptanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorooctanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorononanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorodecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorotridecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorotetradecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorobutanesulfonic acid	2.19	U	2.19	0.44	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorohexanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorooctanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
NEtFOSAA	2.19	U	2.19	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
NMeFOSAA	2.19	U	2.19	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluoroheptanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorodecanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorooctanesulfonamide	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorobutanoic acid	2.19	U	2.19	0.88	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluoroundecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluorododecanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
6:2 Fluorotelomer sulfonic acid	2.19	U	2.19	0.66	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
8:2 Fluorotelomer sulfonic acid	3.29	U	3.29	0.66	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1
Perfluoropentanoic acid	0.66	U	0.66	0.22	ug/Kg	✱	12/09/21 20:50	12/10/21 18:01	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	122		10 - 178	12/09/21 20:50	12/10/21 18:01	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Client Sample ID: 126_PE-1-NW_120621

Lab Sample ID: 460-248550-1

Date Collected: 12/06/21 08:45

Matrix: Solid

Date Received: 12/06/21 18:00

Percent Solids: 84.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	114		10 - 182	12/09/21 20:50	12/10/21 18:01	1
13C5 PFHxA	131		11 - 138	12/09/21 20:50	12/10/21 18:01	1
13C4 PFHpA	113		15 - 139	12/09/21 20:50	12/10/21 18:01	1
13C8 PFOA	134 *		21 - 133	12/09/21 20:50	12/10/21 18:01	1
13C9 PFNA	128		15 - 145	12/09/21 20:50	12/10/21 18:01	1
13C6 PFDA	120		21 - 134	12/09/21 20:50	12/10/21 18:01	1
13C7 PFUnA	132		15 - 138	12/09/21 20:50	12/10/21 18:01	1
13C2-PFDoDA	112		28 - 126	12/09/21 20:50	12/10/21 18:01	1
13C2 PFTeDA	110		10 - 138	12/09/21 20:50	12/10/21 18:01	1
13C3 PFBS	125		23 - 130	12/09/21 20:50	12/10/21 18:01	1
13C3 PFHxS	138 *		24 - 136	12/09/21 20:50	12/10/21 18:01	1
13C8 PFOS	126		31 - 130	12/09/21 20:50	12/10/21 18:01	1
d3-NMeFOSAA	110		10 - 172	12/09/21 20:50	12/10/21 18:01	1
d5-NEtFOSAA	122		10 - 176	12/09/21 20:50	12/10/21 18:01	1
13C8 FOSA	109		25 - 135	12/09/21 20:50	12/10/21 18:01	1
13C4 PFBA	125		12 - 137	12/09/21 20:50	12/10/21 18:01	1
13C5 PFPeA	133		12 - 135	12/09/21 20:50	12/10/21 18:01	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.10	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Arsenic	1.6		1.1	0.12	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Barium	25.2		2.3	0.17	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Beryllium	0.39	J	0.46	0.065	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Chromium	9.0		2.3	0.30	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Copper	6.7		2.3	0.42	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Manganese	465		4.6	0.46	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Nickel	8.3		2.3	0.54	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Lead	5.3		0.68	0.23	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Selenium	0.16	J	1.4	0.15	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1
Zinc	23.4		9.1	3.5	mg/Kg	✱	12/12/21 07:45	12/13/21 15:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.018	0.0085	mg/Kg	✱	12/10/21 04:11	12/10/21 08:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.0		2.0	2.0	mg/Kg			12/21/21 08:25	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	12/10/21 15:49	12/11/21 14:33	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	12/12/21 11:54	12/12/21 20:24	1
Percent Moisture	15.6		1.0	1.0	%			12/10/21 00:17	1
Percent Solids	84.4		1.0	1.0	%			12/10/21 00:17	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Client Sample ID: 127_TB-10

Lab Sample ID: 460-248550-2

Date Collected: 12/06/21 00:00

Matrix: Water

Date Received: 12/06/21 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/09/21 14:40	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/09/21 14:40	1
Acetone	5.0	U	5.0	4.4	ug/L			12/09/21 14:40	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			12/09/21 14:40	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/09/21 14:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/09/21 14:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/09/21 14:40	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/09/21 14:40	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/09/21 14:40	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			12/09/21 14:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/09/21 14:40	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/09/21 14:40	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/09/21 14:40	1
Benzene	1.0	U	1.0	0.20	ug/L			12/09/21 14:40	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/09/21 14:40	1
Toluene	1.0	U	1.0	0.38	ug/L			12/09/21 14:40	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/09/21 14:40	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			12/09/21 14:40	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			12/09/21 14:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			12/09/21 14:40	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			12/09/21 14:40	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			12/09/21 14:40	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			12/09/21 14:40	1
1,4-Dioxane	50	U	50	28	ug/L			12/09/21 14:40	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			12/09/21 14:40	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			12/09/21 14:40	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			12/09/21 14:40	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			12/09/21 14:40	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			12/09/21 14:40	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			12/09/21 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		75 - 123		12/09/21 14:40	1
Toluene-d8 (Surr)	105		80 - 120		12/09/21 14:40	1
4-Bromofluorobenzene	97		76 - 120		12/09/21 14:40	1
Dibromofluoromethane (Surr)	103		77 - 124		12/09/21 14:40	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-248550-1	126_PE-1-NW_120621	113	101	108	98
LCS 460-817833/3	Lab Control Sample	104	95	105	102
LCSD 460-817833/4	Lab Control Sample Dup	103	96	106	103
MB 460-817833/8	Method Blank	100	96	108	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-248550-2	127_TB-10	98	105	97	103
LCS 460-817852/4	Lab Control Sample	88	99	90	93
LCSD 460-817852/5	Lab Control Sample Dup	89	101	90	92
MB 460-817852/9	Method Blank	91	99	91	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-248550-1	126_PE-1-NW_120621	81	86	89	72	87	84
460-248552-A-60-B MS	Matrix Spike	85	88	93	82	89	86
460-248552-A-60-C MSD	Matrix Spike Duplicate	83	87	92	82	88	85
LCS 460-817789/2-A	Lab Control Sample	78	77	91	82	74	76
LCSD 460-817789/3-A	Lab Control Sample Dup	80	81	95	83	79	80
MB 460-817789/1-A	Method Blank	83	82	92	73	81	82

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

FBP = 2-Fluorobiphenyl

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-248403-F-8-F MS	Matrix Spike	85	81	82	74
460-248403-F-8-G MSD	Matrix Spike Duplicate	76	73	73	69
460-248550-1	126_PE-1-NW_120621	94	84	83	84
LCS 460-817744/2-A	Lab Control Sample	95	87	91	84
LCSD 460-817744/3-A	Lab Control Sample Dup	90	83	87	80
MB 460-817744/1-A	Method Blank	95	84	83	83

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-248403-F-8-C MS	Matrix Spike	102	104	90	92
460-248403-F-8-D MSD	Matrix Spike Duplicate	106	107	91	94
460-248550-1	126_PE-1-NW_120621	98	94	87	89
LCS 460-817736/2-A	Lab Control Sample	117	111	104	107
LCSD 460-817736/3-A	Lab Control Sample Dup	115	109	102	104
MB 460-817736/1-A	Method Blank	118	112	103	106

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1 (65-150)	DCPAA2 (65-150)
460-248550-1	126_PE-1-NW_120621	127	117
LCS 460-817809/2-A	Lab Control Sample	136	133
LCSD 460-817809/3-A	Lab Control Sample Dup	127	124
MB 460-817809/1-A	Method Blank	116	117

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-248550-1	126_PE-1-NW_120621	122	114	131	113	134 *	128	120	132
LCS 410-203655/2-B	Lab Control Sample	113	105	119	111	120	121	119	122
LCSD 410-203655/3-B	Lab Control Sample Dup	110	106	123	116	116	119	121	125
MB 410-203655/1-B	Method Blank	123	115	130	118	124	138	126	132

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-248550-1	126_PE-1-NW_120621	112	110	125	138 *	126	110	122	109
LCS 410-203655/2-B	Lab Control Sample	114	116	117	123	126	102	123	109
LCSD 410-203655/3-B	Lab Control Sample Dup	109	116	120	122	114	100	120	112
MB 410-203655/1-B	Method Blank	120	118	122	127	129	89	110	117

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)
460-248550-1	126_PE-1-NW_120621	125	133
LCS 410-203655/2-B	Lab Control Sample	115	120
LCSD 410-203655/3-B	Lab Control Sample Dup	119	124
MB 410-203655/1-B	Method Blank	128	138 *

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-817833/8

Matrix: Solid

Analysis Batch: 817833

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			12/09/21 09:58	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			12/09/21 09:58	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			12/09/21 09:58	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			12/09/21 09:58	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			12/09/21 09:58	1
Acetone	6.0	U	6.0	5.7	ug/Kg			12/09/21 09:58	1
Benzene	1.0	U	1.0	0.26	ug/Kg			12/09/21 09:58	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			12/09/21 09:58	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			12/09/21 09:58	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			12/09/21 09:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			12/09/21 09:58	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			12/09/21 09:58	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			12/09/21 09:58	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			12/09/21 09:58	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			12/09/21 09:58	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			12/09/21 09:58	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			12/09/21 09:58	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			12/09/21 09:58	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			12/09/21 09:58	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			12/09/21 09:58	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			12/09/21 09:58	1
Toluene	1.0	U	1.0	0.23	ug/Kg			12/09/21 09:58	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			12/09/21 09:58	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			12/09/21 09:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			12/09/21 09:58	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			12/09/21 09:58	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			12/09/21 09:58	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			12/09/21 09:58	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			12/09/21 09:58	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			12/09/21 09:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 145		12/09/21 09:58	1
4-Bromofluorobenzene	96		70 - 139		12/09/21 09:58	1
Toluene-d8 (Surr)	97		80 - 120		12/09/21 09:58	1
Dibromofluoromethane (Surr)	108		48 - 150		12/09/21 09:58	1

Lab Sample ID: LCS 460-817833/3

Matrix: Solid

Analysis Batch: 817833

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	23.2		ug/Kg		116	77 - 132
1,1-Dichloroethane	20.0	23.4		ug/Kg		117	76 - 129
1,2-Dichloroethane	20.0	19.6		ug/Kg		98	70 - 132
1,1,1-Trichloroethane	20.0	22.0		ug/Kg		110	78 - 132
2-Butanone (MEK)	100	86.8		ug/Kg		87	75 - 120
Acetone	100	101		ug/Kg		101	63 - 131

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-817833/3

Matrix: Solid

Analysis Batch: 817833

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	21.9		ug/Kg		110	80 - 123
Carbon tetrachloride	20.0	24.0		ug/Kg		120	72 - 136
Chloroform	20.0	21.0		ug/Kg		105	79 - 126
Chlorobenzene	20.0	19.3		ug/Kg		96	80 - 120
cis-1,2-Dichloroethene	20.0	21.0		ug/Kg		105	80 - 123
Ethylbenzene	20.0	19.3		ug/Kg		96	80 - 120
Methylene Chloride	20.0	20.3		ug/Kg		101	76 - 127
m-Xylene & p-Xylene	20.0	18.7		ug/Kg		94	80 - 120
Methyl tert-butyl ether	20.0	21.7		ug/Kg		109	80 - 125
1,3-Dichlorobenzene	20.0	19.1		ug/Kg		96	80 - 120
1,4-Dichlorobenzene	20.0	18.9		ug/Kg		95	80 - 120
o-Xylene	20.0	18.0		ug/Kg		90	80 - 120
1,2-Dichlorobenzene	20.0	19.1		ug/Kg		95	80 - 120
1,4-Dioxane	400	389		ug/Kg		97	73 - 136
1,2,4-Trimethylbenzene	20.0	18.5		ug/Kg		92	79 - 120
Tetrachloroethene	20.0	21.0		ug/Kg		105	78 - 123
1,3,5-Trimethylbenzene	20.0	19.4		ug/Kg		97	79 - 120
Toluene	20.0	19.9		ug/Kg		100	80 - 120
N-Propylbenzene	20.0	19.8		ug/Kg		99	78 - 120
sec-Butylbenzene	20.0	19.8		ug/Kg		99	78 - 120
trans-1,2-Dichloroethene	20.0	23.9		ug/Kg		120	78 - 128
tert-Butylbenzene	20.0	18.6		ug/Kg		93	76 - 120
Trichloroethene	20.0	20.0		ug/Kg		100	79 - 120
n-Butylbenzene	20.0	20.9		ug/Kg		105	77 - 123
Vinyl chloride	20.0	19.0		ug/Kg		95	56 - 147
Xylenes, Total	40.0	36.7		ug/Kg		92	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		77 - 145
4-Bromofluorobenzene	95		70 - 139
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	105		48 - 150

Lab Sample ID: LCSD 460-817833/4

Matrix: Solid

Analysis Batch: 817833

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	24.6		ug/Kg		123	77 - 132	6	30
1,1-Dichloroethane	20.0	23.9		ug/Kg		119	76 - 129	2	30
1,2-Dichloroethane	20.0	19.4		ug/Kg		97	70 - 132	1	30
1,1,1-Trichloroethane	20.0	23.0		ug/Kg		115	78 - 132	4	30
2-Butanone (MEK)	100	96.9		ug/Kg		97	75 - 120	11	30
Acetone	100	118		ug/Kg		118	63 - 131	15	30
Benzene	20.0	22.6		ug/Kg		113	80 - 123	3	30
Carbon tetrachloride	20.0	24.2		ug/Kg		121	72 - 136	1	30
Chloroform	20.0	21.5		ug/Kg		108	79 - 126	2	30
Chlorobenzene	20.0	19.3		ug/Kg		96	80 - 120	0	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-817833/4

Matrix: Solid

Analysis Batch: 817833

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	21.2		ug/Kg		106	80 - 123	1	30
Ethylbenzene	20.0	19.9		ug/Kg		99	80 - 120	3	30
Methylene Chloride	20.0	21.9		ug/Kg		109	76 - 127	7	30
m-Xylene & p-Xylene	20.0	18.9		ug/Kg		94	80 - 120	1	30
Methyl tert-butyl ether	20.0	20.3		ug/Kg		101	80 - 125	7	30
1,3-Dichlorobenzene	20.0	19.9		ug/Kg		99	80 - 120	4	30
1,4-Dichlorobenzene	20.0	19.4		ug/Kg		97	80 - 120	2	30
o-Xylene	20.0	18.8		ug/Kg		94	80 - 120	4	30
1,2-Dichlorobenzene	20.0	20.4		ug/Kg		102	80 - 120	6	30
1,4-Dioxane	400	449		ug/Kg		112	73 - 136	14	30
1,2,4-Trimethylbenzene	20.0	19.4		ug/Kg		97	79 - 120	5	30
Tetrachloroethene	20.0	21.7		ug/Kg		109	78 - 123	3	30
1,3,5-Trimethylbenzene	20.0	20.4		ug/Kg		102	79 - 120	5	30
Toluene	20.0	20.4		ug/Kg		102	80 - 120	2	30
N-Propylbenzene	20.0	20.6		ug/Kg		103	78 - 120	4	30
sec-Butylbenzene	20.0	21.2		ug/Kg		106	78 - 120	7	30
trans-1,2-Dichloroethene	20.0	22.0		ug/Kg		110	78 - 128	8	30
tert-Butylbenzene	20.0	19.8		ug/Kg		99	76 - 120	6	30
Trichloroethene	20.0	18.9		ug/Kg		95	79 - 120	5	30
n-Butylbenzene	20.0	22.6		ug/Kg		113	77 - 123	8	30
Vinyl chloride	20.0	19.6		ug/Kg		98	56 - 147	3	30
Xylenes, Total	40.0	37.7		ug/Kg		94	80 - 120	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		77 - 145
4-Bromofluorobenzene	96		70 - 139
Toluene-d8 (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	106		48 - 150

Lab Sample ID: MB 460-817852/9

Matrix: Water

Analysis Batch: 817852

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			12/09/21 11:19	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/09/21 11:19	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/09/21 11:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/09/21 11:19	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			12/09/21 11:19	1
Acetone	5.0	U	5.0	4.4	ug/L			12/09/21 11:19	1
Benzene	1.0	U	1.0	0.20	ug/L			12/09/21 11:19	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/09/21 11:19	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/09/21 11:19	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/09/21 11:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/09/21 11:19	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			12/09/21 11:19	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/09/21 11:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			12/09/21 11:19	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-817852/9

Matrix: Water

Analysis Batch: 817852

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			12/09/21 11:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			12/09/21 11:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			12/09/21 11:19	1
1,4-Dioxane	50	U	50	28	ug/L			12/09/21 11:19	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			12/09/21 11:19	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/09/21 11:19	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			12/09/21 11:19	1
Toluene	1.0	U	1.0	0.38	ug/L			12/09/21 11:19	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			12/09/21 11:19	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			12/09/21 11:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/09/21 11:19	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			12/09/21 11:19	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/09/21 11:19	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			12/09/21 11:19	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/09/21 11:19	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			12/09/21 11:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 123		12/09/21 11:19	1
4-Bromofluorobenzene	91		76 - 120		12/09/21 11:19	1
Toluene-d8 (Surr)	99		80 - 120		12/09/21 11:19	1
Dibromofluoromethane (Surr)	95		77 - 124		12/09/21 11:19	1

Lab Sample ID: LCS 460-817852/4

Matrix: Water

Analysis Batch: 817852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	18.7		ug/L		93	68 - 133
1,1-Dichloroethane	20.0	17.5		ug/L		87	73 - 130
1,2-Dichloroethane	20.0	17.2		ug/L		86	75 - 121
1,1,1-Trichloroethane	20.0	17.1		ug/L		85	68 - 128
2-Butanone (MEK)	100	110		ug/L		110	69 - 128
Acetone	100	92.8		ug/L		93	61 - 134
Benzene	20.0	18.1		ug/L		90	78 - 126
Carbon tetrachloride	20.0	16.8		ug/L		84	56 - 131
Chloroform	20.0	17.9		ug/L		90	78 - 125
Chlorobenzene	20.0	19.2		ug/L		96	80 - 119
cis-1,2-Dichloroethene	20.0	18.4		ug/L		92	78 - 121
Ethylbenzene	20.0	18.8		ug/L		94	78 - 120
Methylene Chloride	20.0	19.2		ug/L		96	74 - 127
m-Xylene & p-Xylene	20.0	18.8		ug/L		94	78 - 123
Methyl tert-butyl ether	20.0	17.2		ug/L		86	65 - 131
1,3-Dichlorobenzene	20.0	18.9		ug/L		94	80 - 121
1,4-Dichlorobenzene	20.0	19.2		ug/L		96	80 - 118
o-Xylene	20.0	18.3		ug/L		92	78 - 122
1,2-Dichlorobenzene	20.0	19.2		ug/L		96	79 - 122
1,4-Dioxane	400	372		ug/L		93	70 - 142

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-817852/4

Matrix: Water

Analysis Batch: 817852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	19.3		ug/L		97	75 - 125
Tetrachloroethene	20.0	16.5		ug/L		83	70 - 127
1,3,5-Trimethylbenzene	20.0	19.0		ug/L		95	75 - 125
Toluene	20.0	18.3		ug/L		92	78 - 119
N-Propylbenzene	20.0	19.2		ug/L		96	74 - 129
sec-Butylbenzene	20.0	19.7		ug/L		98	73 - 129
trans-1,2-Dichloroethene	20.0	18.2		ug/L		91	74 - 126
tert-Butylbenzene	20.0	18.7		ug/L		94	72 - 124
Trichloroethene	20.0	17.0		ug/L		85	71 - 121
n-Butylbenzene	20.0	19.1		ug/L		96	69 - 135
Vinyl chloride	20.0	19.6		ug/L		98	61 - 144
Xylenes, Total	40.0	37.1		ug/L		93	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		75 - 123
4-Bromofluorobenzene	90		76 - 120
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	93		77 - 124

Lab Sample ID: LCSD 460-817852/5

Matrix: Water

Analysis Batch: 817852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	20.2		ug/L		101	68 - 133	8	30
1,1-Dichloroethane	20.0	17.9		ug/L		90	73 - 130	2	30
1,2-Dichloroethane	20.0	17.3		ug/L		87	75 - 121	1	30
1,1,1-Trichloroethane	20.0	17.6		ug/L		88	68 - 128	3	30
2-Butanone (MEK)	100	107		ug/L		107	69 - 128	3	30
Acetone	100	104		ug/L		104	61 - 134	11	30
Benzene	20.0	18.8		ug/L		94	78 - 126	4	30
Carbon tetrachloride	20.0	17.2		ug/L		86	56 - 131	2	30
Chloroform	20.0	18.2		ug/L		91	78 - 125	2	30
Chlorobenzene	20.0	19.5		ug/L		97	80 - 119	1	30
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	78 - 121	4	30
Ethylbenzene	20.0	19.3		ug/L		97	78 - 120	3	30
Methylene Chloride	20.0	19.2		ug/L		96	74 - 127	0	30
m-Xylene & p-Xylene	20.0	19.1		ug/L		95	78 - 123	2	30
Methyl tert-butyl ether	20.0	17.0		ug/L		85	65 - 131	1	30
1,3-Dichlorobenzene	20.0	19.3		ug/L		96	80 - 121	2	30
1,4-Dichlorobenzene	20.0	19.6		ug/L		98	80 - 118	2	30
o-Xylene	20.0	18.6		ug/L		93	78 - 122	1	30
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	79 - 122	0	30
1,4-Dioxane	400	379		ug/L		95	70 - 142	2	30
1,2,4-Trimethylbenzene	20.0	19.6		ug/L		98	75 - 125	1	30
Tetrachloroethene	20.0	16.5		ug/L		82	70 - 127	0	30
1,3,5-Trimethylbenzene	20.0	18.9		ug/L		95	75 - 125	0	30
Toluene	20.0	18.7		ug/L		93	78 - 119	2	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-817852/5

Matrix: Water

Analysis Batch: 817852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Propylbenzene	20.0	20.0		ug/L		100	74 - 129	4	30
sec-Butylbenzene	20.0	20.3		ug/L		101	73 - 129	3	30
trans-1,2-Dichloroethene	20.0	18.3		ug/L		91	74 - 126	0	30
tert-Butylbenzene	20.0	19.2		ug/L		96	72 - 124	3	30
Trichloroethene	20.0	18.0		ug/L		90	71 - 121	5	30
n-Butylbenzene	20.0	20.0		ug/L		100	69 - 135	4	30
Vinyl chloride	20.0	20.2		ug/L		101	61 - 144	3	30
Xylenes, Total	40.0	37.7		ug/L		94	78 - 122	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		75 - 123
4-Bromofluorobenzene	90		76 - 120
Toluene-d8 (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	92		77 - 124

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-817789/1-A

Matrix: Solid

Analysis Batch: 817868

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 817789

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
2-Methylphenol	330	U	330	12	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Pentachlorophenol	270	U	270	68	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Naphthalene	330	U	330	5.7	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Acenaphthylene	330	U	330	3.3	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Acenaphthene	330	U	330	9.4	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Dibenzofuran	330	U	330	4.6	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Fluorene	330	U	330	4.5	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Hexachlorobenzene	33	U	33	16	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Phenanthrene	330	U	330	5.8	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Anthracene	330	U	330	10	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Fluoranthene	330	U	330	12	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Pyrene	330	U	330	8.2	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Chrysene	330	U	330	5.6	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		12/08/21 21:38	12/09/21 09:33	1
1,4-Dioxane	33	U	33	29	ug/Kg		12/08/21 21:38	12/09/21 09:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		11 - 104	12/08/21 21:38	12/09/21 09:33	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-817789/1-A

Matrix: Solid

Analysis Batch: 817868

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 817789

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	82		15 - 100	12/08/21 21:38	12/09/21 09:33	1
Terphenyl-d14 (Surr)	92		12 - 126	12/08/21 21:38	12/09/21 09:33	1
2,4,6-Tribromophenol (Surr)	73		10 - 123	12/08/21 21:38	12/09/21 09:33	1
2-Fluorophenol (Surr)	81		10 - 105	12/08/21 21:38	12/09/21 09:33	1
2-Fluorobiphenyl	82		14 - 103	12/08/21 21:38	12/09/21 09:33	1

Lab Sample ID: LCS 460-817789/2-A

Matrix: Solid

Analysis Batch: 817868

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 817789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	3140		ug/Kg		94	63 - 110
2-Methylphenol	3330	3070		ug/Kg		92	63 - 108
3 & 4 Methylphenol	3330	3050		ug/Kg		91	61 - 108
Pentachlorophenol	6670	6360		ug/Kg		95	44 - 126
Naphthalene	3330	2950		ug/Kg		89	63 - 106
Acenaphthylene	3330	3050		ug/Kg		92	64 - 108
Acenaphthene	3330	3040		ug/Kg		91	53 - 110
Dibenzofuran	3330	3210		ug/Kg		96	65 - 108
Fluorene	3330	3400		ug/Kg		102	65 - 109
Hexachlorobenzene	3330	3110		ug/Kg		93	61 - 113
Phenanthrene	3330	3310		ug/Kg		99	66 - 112
Anthracene	3330	3360		ug/Kg		101	67 - 114
Fluoranthene	3330	3440		ug/Kg		103	61 - 106
Pyrene	3330	3530		ug/Kg		106	61 - 111
Benzo[a]anthracene	3330	3470		ug/Kg		104	67 - 115
Chrysene	3330	3490		ug/Kg		105	71 - 122
Benzo[b]fluoranthene	3330	3750		ug/Kg		113	70 - 125
Benzo[k]fluoranthene	3330	3760		ug/Kg		113	67 - 115
Benzo[a]pyrene	3330	3500		ug/Kg		105	73 - 123
Indeno[1,2,3-cd]pyrene	3330	3700		ug/Kg		111	62 - 121
Dibenz(a,h)anthracene	3330	3620		ug/Kg		108	66 - 119
Benzo[g,h,i]perylene	3330	3490		ug/Kg		105	61 - 113
1,4-Dioxane	3330	2470		ug/Kg		74	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	78		11 - 104
Phenol-d5 (Surr)	77		15 - 100
Terphenyl-d14 (Surr)	91		12 - 126
2,4,6-Tribromophenol (Surr)	82		10 - 123
2-Fluorophenol (Surr)	74		10 - 105
2-Fluorobiphenyl	76		14 - 103

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-817789/3-A

Matrix: Solid

Analysis Batch: 817868

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 817789

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	3210		ug/Kg		96	63 - 110	2	30
2-Methylphenol	3330	3160		ug/Kg		95	63 - 108	3	30
3 & 4 Methylphenol	3330	3140		ug/Kg		94	61 - 108	3	30
Pentachlorophenol	6670	6500		ug/Kg		97	44 - 126	2	30
Naphthalene	3330	3020		ug/Kg		91	63 - 106	2	30
Acenaphthylene	3330	3140		ug/Kg		94	64 - 108	3	30
Acenaphthene	3330	3150		ug/Kg		95	53 - 110	4	30
Dibenzofuran	3330	3330		ug/Kg		100	65 - 108	3	30
Fluorene	3330	3510		ug/Kg		105	65 - 109	3	30
Hexachlorobenzene	3330	3250		ug/Kg		97	61 - 113	4	30
Phenanthrene	3330	3470		ug/Kg		104	66 - 112	5	30
Anthracene	3330	3490		ug/Kg		105	67 - 114	4	30
Fluoranthene	3330	3510		ug/Kg		105	61 - 106	2	30
Pyrene	3330	3760	*	ug/Kg		113	61 - 111	6	30
Benzo[a]anthracene	3330	3610		ug/Kg		108	67 - 115	4	30
Chrysene	3330	3700		ug/Kg		111	71 - 122	6	30
Benzo[b]fluoranthene	3330	3760		ug/Kg		113	70 - 125	0	30
Benzo[k]fluoranthene	3330	3980	*	ug/Kg		119	67 - 115	6	30
Benzo[a]pyrene	3330	3610		ug/Kg		108	73 - 123	3	30
Indeno[1,2,3-cd]pyrene	3330	3830		ug/Kg		115	62 - 121	4	30
Dibenz(a,h)anthracene	3330	3760		ug/Kg		113	66 - 119	4	30
Benzo[g,h,i]perylene	3330	3630		ug/Kg		109	61 - 113	4	30
1,4-Dioxane	3330	2710		ug/Kg		81	31 - 81	9	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	80		11 - 104
Phenol-d5 (Surr)	81		15 - 100
Terphenyl-d14 (Surr)	95		12 - 126
2,4,6-Tribromophenol (Surr)	83		10 - 123
2-Fluorophenol (Surr)	79		10 - 105
2-Fluorobiphenyl	80		14 - 103

Lab Sample ID: 460-248552-A-60-B MS

Matrix: Solid

Analysis Batch: 817868

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 817789

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	420	U	4210	4420		ug/Kg	☼	105	63 - 110
2-Methylphenol	420	U	4210	4370		ug/Kg	☼	104	63 - 108
3 & 4 Methylphenol	420	U	4210	4270		ug/Kg	☼	101	61 - 108
Pentachlorophenol	340	U	8430	7910		ug/Kg	☼	94	44 - 126
Naphthalene	420	U	4210	4190		ug/Kg	☼	99	63 - 106
Acenaphthylene	420	U	4210	4180		ug/Kg	☼	99	64 - 108
Acenaphthene	420	U	4210	4170		ug/Kg	☼	99	53 - 110
Dibenzofuran	420	U	4210	4360		ug/Kg	☼	104	65 - 108
Fluorene	420	U	4210	4470		ug/Kg	☼	106	65 - 109
Hexachlorobenzene	42	U	4210	4230		ug/Kg	☼	100	61 - 113
Phenanthrene	420	U	4210	4270		ug/Kg	☼	101	66 - 112

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248552-A-60-B MS

Matrix: Solid

Analysis Batch: 817868

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 817789

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	420	U	4210	4350		ug/Kg	✱	103	67 - 114
Fluoranthene	420	U	4210	4210		ug/Kg	✱	100	61 - 106
Pyrene	420	U *	4210	4650		ug/Kg	✱	110	61 - 111
Benzo[a]anthracene	42	U	4210	4320		ug/Kg	✱	103	67 - 115
Chrysene	420	U	4210	4340		ug/Kg	✱	103	71 - 122
Benzo[b]fluoranthene	42	U	4210	4700		ug/Kg	✱	112	70 - 125
Benzo[k]fluoranthene	42	U *	4210	4790		ug/Kg	✱	114	67 - 115
Benzo[a]pyrene	42	U	4210	4380		ug/Kg	✱	104	73 - 123
Indeno[1,2,3-cd]pyrene	42	U	4210	4660		ug/Kg	✱	111	62 - 121
Dibenz(a,h)anthracene	42	U	4210	4630		ug/Kg	✱	110	66 - 119
Benzo[g,h,i]perylene	420	U	4210	4410		ug/Kg	✱	105	61 - 113
1,4-Dioxane	42	U	4210	3430	*	ug/Kg	✱	82	31 - 81

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	85		11 - 104
Phenol-d5 (Surr)	88		15 - 100
Terphenyl-d14 (Surr)	93		12 - 126
2,4,6-Tribromophenol (Surr)	82		10 - 123
2-Fluorophenol (Surr)	89		10 - 105
2-Fluorobiphenyl	86		14 - 103

Lab Sample ID: 460-248552-A-60-C MSD

Matrix: Solid

Analysis Batch: 817868

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 817789

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	420	U	4210	4250		ug/Kg	✱	101	63 - 110	4	30
2-Methylphenol	420	U	4210	4220		ug/Kg	✱	100	63 - 108	3	30
3 & 4 Methylphenol	420	U	4210	4140		ug/Kg	✱	98	61 - 108	3	30
Pentachlorophenol	340	U	8430	7550		ug/Kg	✱	90	44 - 126	5	30
Naphthalene	420	U	4210	4020		ug/Kg	✱	95	63 - 106	4	30
Acenaphthylene	420	U	4210	4040		ug/Kg	✱	96	64 - 108	3	30
Acenaphthene	420	U	4210	3950		ug/Kg	✱	94	53 - 110	5	30
Dibenzofuran	420	U	4210	4200		ug/Kg	✱	100	65 - 108	4	30
Fluorene	420	U	4210	4330		ug/Kg	✱	103	65 - 109	3	30
Hexachlorobenzene	42	U	4210	3930		ug/Kg	✱	93	61 - 113	7	30
Phenanthrene	420	U	4210	4100		ug/Kg	✱	97	66 - 112	4	30
Anthracene	420	U	4210	4110		ug/Kg	✱	97	67 - 114	6	30
Fluoranthene	420	U	4210	3970		ug/Kg	✱	94	61 - 106	6	30
Pyrene	420	U *	4210	4510		ug/Kg	✱	107	61 - 111	3	30
Benzo[a]anthracene	42	U	4210	4130		ug/Kg	✱	98	67 - 115	5	30
Chrysene	420	U	4210	4250		ug/Kg	✱	101	71 - 122	2	30
Benzo[b]fluoranthene	42	U	4210	4350		ug/Kg	✱	103	70 - 125	8	30
Benzo[k]fluoranthene	42	U *	4210	4640		ug/Kg	✱	110	67 - 115	3	30
Benzo[a]pyrene	42	U	4210	4110		ug/Kg	✱	98	73 - 123	6	30
Indeno[1,2,3-cd]pyrene	42	U	4210	4370		ug/Kg	✱	104	62 - 121	6	30
Dibenz(a,h)anthracene	42	U	4210	4290		ug/Kg	✱	102	66 - 119	8	30
Benzo[g,h,i]perylene	420	U	4210	4100		ug/Kg	✱	97	61 - 113	7	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-248552-A-60-C MSD

Matrix: Solid

Analysis Batch: 817868

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 817789

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	42	U	4210	3300		ug/Kg	✱	78	31 - 81	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5 (Surr)	83		11 - 104								
Phenol-d5 (Surr)	87		15 - 100								
Terphenyl-d14 (Surr)	92		12 - 126								
2,4,6-Tribromophenol (Surr)	82		10 - 123								
2-Fluorophenol (Surr)	88		10 - 105								
2-Fluorobiphenyl	85		14 - 103								

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-817744/1-A

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 817744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Chlordane (technical)	67	U	67	16	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Chlordane (technical)	67	U	67	16	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endrin	6.7	U	6.7	0.96	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endrin	6.7	U	6.7	0.96	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		12/08/21 17:08	12/09/21 08:36	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-817744/1-A

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 817744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	6.7	U	6.7	0.79	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Toxaphene	67	U	67	24	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
Toxaphene	67	U	67	24	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		12/08/21 17:08	12/09/21 08:36	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		12/08/21 17:08	12/09/21 08:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		10 - 150	12/08/21 17:08	12/09/21 08:36	1
DCB Decachlorobiphenyl	95		10 - 150	12/08/21 17:08	12/09/21 08:36	1
Tetrachloro-m-xylene	83		10 - 133	12/08/21 17:08	12/09/21 08:36	1
Tetrachloro-m-xylene	83		10 - 133	12/08/21 17:08	12/09/21 08:36	1

Lab Sample ID: LCS 460-817744/2-A

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 817744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	147		ug/Kg		110	70 - 140
4,4'-DDD	133	146		ug/Kg		109	70 - 140
4,4'-DDE	133	149		ug/Kg		112	71 - 137
4,4'-DDE	133	148		ug/Kg		111	71 - 137
4,4'-DDT	133	137		ug/Kg		103	63 - 131
4,4'-DDT	133	142		ug/Kg		106	63 - 131
Aldrin	133	145		ug/Kg		108	74 - 140
Aldrin	133	144		ug/Kg		108	74 - 140
alpha-BHC	133	146		ug/Kg		110	72 - 142
alpha-BHC	133	145		ug/Kg		109	72 - 142
beta-BHC	133	153		ug/Kg		115	65 - 137
beta-BHC	133	154		ug/Kg		116	65 - 137
delta-BHC	133	142		ug/Kg		106	70 - 143
delta-BHC	133	142		ug/Kg		107	70 - 143
Dieldrin	133	144		ug/Kg		108	70 - 135
Dieldrin	133	143		ug/Kg		107	70 - 135
Endosulfan I	133	142		ug/Kg		106	68 - 135
Endosulfan I	133	140		ug/Kg		105	68 - 135
Endosulfan II	133	147		ug/Kg		111	64 - 130
Endosulfan II	133	146		ug/Kg		109	64 - 130
Endosulfan sulfate	133	147		ug/Kg		110	66 - 143
Endosulfan sulfate	133	155		ug/Kg		117	66 - 143
Endrin	133	142		ug/Kg		107	68 - 136
Endrin	133	139		ug/Kg		104	68 - 136
Endrin aldehyde	133	139		ug/Kg		104	68 - 132
Endrin aldehyde	133	138		ug/Kg		104	68 - 132

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-817744/2-A

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 817744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin ketone	133	142		ug/Kg		107	60 - 150
Endrin ketone	133	141		ug/Kg		105	60 - 150
gamma-BHC (Lindane)	133	147		ug/Kg		111	70 - 134
gamma-BHC (Lindane)	133	150		ug/Kg		112	70 - 134
Heptachlor	133	142		ug/Kg		106	69 - 134
Heptachlor	133	139		ug/Kg		104	69 - 134
Heptachlor epoxide	133	141		ug/Kg		105	70 - 135
Heptachlor epoxide	133	138		ug/Kg		104	70 - 135
Methoxychlor	133	127		ug/Kg		95	57 - 135
Methoxychlor	133	132		ug/Kg		99	57 - 135
cis-Chlordane	133	142		ug/Kg		106	70 - 136
cis-Chlordane	133	141		ug/Kg		105	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	87		10 - 150
DCB Decachlorobiphenyl	95		10 - 150
Tetrachloro-m-xylene	84		10 - 133
Tetrachloro-m-xylene	91		10 - 133

Lab Sample ID: LCSD 460-817744/3-A

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 817744

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	133	134		ug/Kg		101	70 - 140	9	30
4,4'-DDD	133	134		ug/Kg		100	70 - 140	9	30
4,4'-DDE	133	136		ug/Kg		102	71 - 137	9	30
4,4'-DDE	133	137		ug/Kg		103	71 - 137	7	30
4,4'-DDT	133	125		ug/Kg		94	63 - 131	10	30
4,4'-DDT	133	129		ug/Kg		97	63 - 131	10	30
Aldrin	133	133		ug/Kg		100	74 - 140	8	30
Aldrin	133	133		ug/Kg		100	74 - 140	8	30
alpha-BHC	133	134		ug/Kg		101	72 - 142	8	30
alpha-BHC	133	135		ug/Kg		101	72 - 142	8	30
beta-BHC	133	140		ug/Kg		105	65 - 137	8	30
beta-BHC	133	143		ug/Kg		107	65 - 137	8	30
delta-BHC	133	131		ug/Kg		98	70 - 143	8	30
delta-BHC	133	132		ug/Kg		99	70 - 143	8	30
Dieldrin	133	132		ug/Kg		99	70 - 135	9	30
Dieldrin	133	132		ug/Kg		99	70 - 135	8	30
Endosulfan I	133	130		ug/Kg		98	68 - 135	8	30
Endosulfan I	133	129		ug/Kg		97	68 - 135	8	30
Endosulfan II	133	135		ug/Kg		101	64 - 130	9	30
Endosulfan II	133	133		ug/Kg		100	64 - 130	9	30
Endosulfan sulfate	133	134		ug/Kg		100	66 - 143	9	30
Endosulfan sulfate	133	142		ug/Kg		107	66 - 143	9	30
Endrin	133	129		ug/Kg		97	68 - 136	10	30
Endrin	133	126		ug/Kg		95	68 - 136	10	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-817744/3-A

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 817744

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin aldehyde	133	128		ug/Kg		96	68 - 132	9	30
Endrin aldehyde	133	127		ug/Kg		96	68 - 132	8	30
Endrin ketone	133	130		ug/Kg		97	60 - 150	9	30
Endrin ketone	133	128		ug/Kg		96	60 - 150	9	30
gamma-BHC (Lindane)	133	135		ug/Kg		101	70 - 134	9	30
gamma-BHC (Lindane)	133	138		ug/Kg		104	70 - 134	8	30
Heptachlor	133	131		ug/Kg		98	69 - 134	8	30
Heptachlor	133	128		ug/Kg		96	69 - 134	8	30
Heptachlor epoxide	133	129		ug/Kg		97	70 - 135	8	30
Heptachlor epoxide	133	128		ug/Kg		96	70 - 135	8	30
Methoxychlor	133	115		ug/Kg		87	57 - 135	10	30
Methoxychlor	133	120		ug/Kg		90	57 - 135	9	30
cis-Chlordane	133	130		ug/Kg		98	70 - 136	8	30
cis-Chlordane	133	131		ug/Kg		98	70 - 136	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
DCB Decachlorobiphenyl	83		10 - 150
DCB Decachlorobiphenyl	90		10 - 150
Tetrachloro-m-xylene	80		10 - 133
Tetrachloro-m-xylene	87		10 - 133

Lab Sample ID: 460-248403-F-8-F MS

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 817744

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	7.5	U	150	160		ug/Kg	✱	107	70 - 140
4,4'-DDD	7.5	U	150	146		ug/Kg	✱	97	70 - 140
4,4'-DDE	2.7	J	150	164		ug/Kg	✱	107	71 - 137
4,4'-DDE	2.9	J	150	146		ug/Kg	✱	95	71 - 137
4,4'-DDT	5.9	J	150	153		ug/Kg	✱	98	63 - 131
4,4'-DDT	5.9	J	150	158		ug/Kg	✱	101	63 - 131
Aldrin	7.5	U	150	156		ug/Kg	✱	104	74 - 140
Aldrin	7.5	U	150	154		ug/Kg	✱	102	74 - 140
alpha-BHC	2.2	U	150	158		ug/Kg	✱	105	72 - 142
alpha-BHC	2.2	U	150	158		ug/Kg	✱	105	72 - 142
beta-BHC	2.2	U	150	157		ug/Kg	✱	105	65 - 137
beta-BHC	2.2	U	150	150		ug/Kg	✱	100	65 - 137
delta-BHC	2.2	U	150	153		ug/Kg	✱	102	70 - 143
delta-BHC	2.2	U	150	151		ug/Kg	✱	101	70 - 143
Dieldrin	2.2	U	150	158		ug/Kg	✱	105	70 - 135
Dieldrin	2.2	U	150	157		ug/Kg	✱	104	70 - 135
Endosulfan I	7.5	U	150	152		ug/Kg	✱	101	68 - 135
Endosulfan I	7.5	U	150	150		ug/Kg	✱	100	68 - 135
Endosulfan II	7.5	U	150	162		ug/Kg	✱	108	64 - 130
Endosulfan II	7.5	U	150	158		ug/Kg	✱	105	64 - 130
Endosulfan sulfate	7.5	U	150	159		ug/Kg	✱	106	66 - 143
Endosulfan sulfate	7.5	U	150	160		ug/Kg	✱	106	66 - 143

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-248403-F-8-F MS

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 817744

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin	7.5	U	150	146		ug/Kg	☼	97	68 - 136
Endrin	7.5	U	150	141		ug/Kg	☼	94	68 - 136
Endrin aldehyde	7.5	U	150	157		ug/Kg	☼	105	68 - 132
Endrin aldehyde	7.5	U	150	150		ug/Kg	☼	100	68 - 132
Endrin ketone	7.5	U	150	154		ug/Kg	☼	102	60 - 150
Endrin ketone	7.5	U	150	160		ug/Kg	☼	106	60 - 150
gamma-BHC (Lindane)	2.2	U	150	160		ug/Kg	☼	106	70 - 134
gamma-BHC (Lindane)	2.2	U	150	165		ug/Kg	☼	110	70 - 134
Heptachlor	7.5	U	150	152		ug/Kg	☼	101	69 - 134
Heptachlor	7.5	U	150	147		ug/Kg	☼	98	69 - 134
Heptachlor epoxide	7.5	U	150	153		ug/Kg	☼	102	70 - 135
Heptachlor epoxide	7.5	U	150	148		ug/Kg	☼	99	70 - 135
Methoxychlor	7.5	U	150	133		ug/Kg	☼	88	57 - 135
Methoxychlor	7.5	U	150	142		ug/Kg	☼	94	57 - 135
cis-Chlordane	7.5	U	150	156		ug/Kg	☼	104	70 - 136
cis-Chlordane	7.5	U	150	139		ug/Kg	☼	93	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	81		10 - 150
DCB Decachlorobiphenyl	85		10 - 150
Tetrachloro-m-xylene	74		10 - 133
Tetrachloro-m-xylene	82		10 - 133

Lab Sample ID: 460-248403-F-8-G MSD

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 817744

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	7.5	U	150	134		ug/Kg	☼	89	70 - 140	18	30
4,4'-DDD	7.5	U	150	119		ug/Kg	☼	79	70 - 140	20	30
4,4'-DDE	2.7	J	150	137		ug/Kg	☼	89	71 - 137	18	30
4,4'-DDE	2.9	J	150	120		ug/Kg	☼	78	71 - 137	20	30
4,4'-DDT	5.9	J	150	127		ug/Kg	☼	80	63 - 131	19	30
4,4'-DDT	5.9	J	150	128		ug/Kg	☼	81	63 - 131	21	30
Aldrin	7.5	U	150	131		ug/Kg	☼	87	74 - 140	18	30
Aldrin	7.5	U	150	126		ug/Kg	☼	84	74 - 140	20	30
alpha-BHC	2.2	U	150	132		ug/Kg	☼	88	72 - 142	18	30
alpha-BHC	2.2	U	150	129		ug/Kg	☼	86	72 - 142	20	30
beta-BHC	2.2	U	150	132		ug/Kg	☼	88	65 - 137	17	30
beta-BHC	2.2	U	150	123		ug/Kg	☼	82	65 - 137	20	30
delta-BHC	2.2	U	150	129		ug/Kg	☼	86	70 - 143	17	30
delta-BHC	2.2	U	150	123		ug/Kg	☼	82	70 - 143	20	30
Dieldrin	2.2	U	150	132		ug/Kg	☼	88	70 - 135	18	30
Dieldrin	2.2	U	150	129		ug/Kg	☼	86	70 - 135	19	30
Endosulfan I	7.5	U	150	128		ug/Kg	☼	85	68 - 135	17	30
Endosulfan I	7.5	U	150	124		ug/Kg	☼	82	68 - 135	19	30
Endosulfan II	7.5	U	150	135		ug/Kg	☼	90	64 - 130	18	30
Endosulfan II	7.5	U	150	129		ug/Kg	☼	86	64 - 130	20	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-248403-F-8-G MSD

Matrix: Solid

Analysis Batch: 817815

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 817744

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endosulfan sulfate	7.5	U	150	133		ug/Kg	☼	88	66 - 143	18	30
Endosulfan sulfate	7.5	U	150	131		ug/Kg	☼	88	66 - 143	19	30
Endrin	7.5	U	150	122		ug/Kg	☼	81	68 - 136	18	30
Endrin	7.5	U	150	115		ug/Kg	☼	77	68 - 136	20	30
Endrin aldehyde	7.5	U	150	130		ug/Kg	☼	86	68 - 132	19	30
Endrin aldehyde	7.5	U	150	121		ug/Kg	☼	80	68 - 132	22	30
Endrin ketone	7.5	U	150	132		ug/Kg	☼	88	60 - 150	15	30
Endrin ketone	7.5	U	150	130		ug/Kg	☼	86	60 - 150	21	30
gamma-BHC (Lindane)	2.2	U	150	134		ug/Kg	☼	89	70 - 134	17	30
gamma-BHC (Lindane)	2.2	U	150	136		ug/Kg	☼	91	70 - 134	20	30
Heptachlor	7.5	U	150	127		ug/Kg	☼	84	69 - 134	18	30
Heptachlor	7.5	U	150	121		ug/Kg	☼	81	69 - 134	20	30
Heptachlor epoxide	7.5	U	150	128		ug/Kg	☼	85	70 - 135	18	30
Heptachlor epoxide	7.5	U	150	122		ug/Kg	☼	81	70 - 135	20	30
Methoxychlor	7.5	U	150	110		ug/Kg	☼	73	57 - 135	19	30
Methoxychlor	7.5	U	150	115		ug/Kg	☼	77	57 - 135	21	30
cis-Chlordane	7.5	U	150	130		ug/Kg	☼	87	70 - 136	18	30
cis-Chlordane	7.5	U	150	114		ug/Kg	☼	76	70 - 136	20	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	73		10 - 150
DCB Decachlorobiphenyl	76		10 - 150
Tetrachloro-m-xylene	69		10 - 133
Tetrachloro-m-xylene	73		10 - 133

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-817736/1-A

Matrix: Solid

Analysis Batch: 817949

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 817736

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1016	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1221	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1221	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1232	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1232	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1242	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1242	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1248	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1248	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1254	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1254	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1260	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1260	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor-1262	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor-1262	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Aroclor 1268	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-817736/1-A

Matrix: Solid

Analysis Batch: 817949

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 817736

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		12/08/21 16:28	12/09/21 19:59	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		37 - 150				12/08/21 16:28	12/09/21 19:59	1
DCB Decachlorobiphenyl	118		37 - 150				12/08/21 16:28	12/09/21 19:59	1
Tetrachloro-m-xylene	106		54 - 150				12/08/21 16:28	12/09/21 19:59	1
Tetrachloro-m-xylene	103		54 - 150				12/08/21 16:28	12/09/21 19:59	1

Lab Sample ID: LCS 460-817736/2-A

Matrix: Solid

Analysis Batch: 817949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 817736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	395		ug/Kg		119	65 - 133
Aroclor 1016	333	378		ug/Kg		113	65 - 133
Aroclor 1260	333	402		ug/Kg		120	71 - 150
Aroclor 1260	333	388		ug/Kg		116	71 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl	111		37 - 150				
DCB Decachlorobiphenyl	117		37 - 150				
Tetrachloro-m-xylene	107		54 - 150				
Tetrachloro-m-xylene	104		54 - 150				

Lab Sample ID: LCSD 460-817736/3-A

Matrix: Solid

Analysis Batch: 817949

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 817736

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	333	390		ug/Kg		117	65 - 133	1	30
Aroclor 1016	333	376		ug/Kg		113	65 - 133	0	30
Aroclor 1260	333	404		ug/Kg		121	71 - 150	1	30
Aroclor 1260	333	389		ug/Kg		117	71 - 150	0	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
DCB Decachlorobiphenyl	109		37 - 150						
DCB Decachlorobiphenyl	115		37 - 150						
Tetrachloro-m-xylene	104		54 - 150						
Tetrachloro-m-xylene	102		54 - 150						

Lab Sample ID: 460-248403-F-8-C MS

Matrix: Solid

Analysis Batch: 817949

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 817736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	75	U	375	392		ug/Kg	✖	104	65 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 460-248403-F-8-C MS

Matrix: Solid

Analysis Batch: 817949

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 817736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	75	U	375	385		ug/Kg	⊛	102	65 - 133
Aroclor 1260	75	U	375	419		ug/Kg	⊛	112	71 - 150
Aroclor 1260	75	U	375	390		ug/Kg	⊛	104	71 - 150
Surrogate	MS %Recovery	MS Qualifier	Limits						
DCB Decachlorobiphenyl	104		37 - 150						
DCB Decachlorobiphenyl	102		37 - 150						
Tetrachloro-m-xylene	92		54 - 150						
Tetrachloro-m-xylene	90		54 - 150						

Lab Sample ID: 460-248403-F-8-D MSD

Matrix: Solid

Analysis Batch: 817949

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 817736

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	75	U	375	415		ug/Kg	⊛	111	65 - 133	6	30
Aroclor 1016	75	U	375	395		ug/Kg	⊛	105	65 - 133	3	30
Aroclor 1260	75	U	375	447		ug/Kg	⊛	119	71 - 150	6	30
Aroclor 1260	75	U	375	407		ug/Kg	⊛	108	71 - 150	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
DCB Decachlorobiphenyl	107		37 - 150								
DCB Decachlorobiphenyl	106		37 - 150								
Tetrachloro-m-xylene	94		54 - 150								
Tetrachloro-m-xylene	91		54 - 150								

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-817809/1-A

Matrix: Solid

Analysis Batch: 817951

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 817809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		12/08/21 23:59	12/09/21 16:46	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		12/08/21 23:59	12/09/21 16:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	117		65 - 150				12/08/21 23:59	12/09/21 16:46	1
2,4-Dichlorophenylacetic acid	116		65 - 150				12/08/21 23:59	12/09/21 16:46	1

Lab Sample ID: LCS 460-817809/2-A

Matrix: Solid

Analysis Batch: 817951

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 817809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	41.7	53.1		ug/Kg		127	58 - 150
Silvex (2,4,5-TP)	41.7	58.0		ug/Kg		139	58 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 460-817809/2-A

Matrix: Solid

Analysis Batch: 817951

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 817809

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	133		65 - 150
2,4-Dichlorophenylacetic acid	136		65 - 150

Lab Sample ID: LCSD 460-817809/3-A

Matrix: Solid

Analysis Batch: 817951

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 817809

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	41.7	52.0		ug/Kg		125	58 - 150	2	30
Silvex (2,4,5-TP)	41.7	56.6		ug/Kg		136	58 - 150	2	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	124		65 - 150
2,4-Dichlorophenylacetic acid	127		65 - 150

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-203655/1-B

Matrix: Solid

Analysis Batch: 203978

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203655

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluoroheptanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorooctanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorononanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorodecanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorotridecanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorotetradecanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorobutanesulfonic acid	2.00 U		2.00	0.40	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorohexanesulfonic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorooctanesulfonic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
NEtFOSAA	2.00 U		2.00	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
NMeFOSAA	2.00 U		2.00	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluoroheptanesulfonic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorodecanesulfonic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorooctanesulfonamide	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorobutanoic acid	2.00 U		2.00	0.80	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluoroundecanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluorododecanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
6:2 Fluorotelomer sulfonic acid	2.00 U		2.00	0.60	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
8:2 Fluorotelomer sulfonic acid	3.00 U		3.00	0.60	ug/Kg		12/09/21 20:50	12/10/21 17:19	1
Perfluoropentanoic acid	0.60 U		0.60	0.20	ug/Kg		12/09/21 20:50	12/10/21 17:19	1

	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
M2-8:2 FTS	123		10 - 178	12/09/21 20:50	12/10/21 17:19	1			
M2-6:2 FTS	115		10 - 182	12/09/21 20:50	12/10/21 17:19	1			
13C5 PFHxA	130		11 - 138	12/09/21 20:50	12/10/21 17:19	1			

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-203655/1-B

Matrix: Solid

Analysis Batch: 203978

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203655

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFHpA	118		15 - 139	12/09/21 20:50	12/10/21 17:19	1
13C8 PFOA	124		21 - 133	12/09/21 20:50	12/10/21 17:19	1
13C9 PFNA	138		15 - 145	12/09/21 20:50	12/10/21 17:19	1
13C6 PFDA	126		21 - 134	12/09/21 20:50	12/10/21 17:19	1
13C7 PFUnA	132		15 - 138	12/09/21 20:50	12/10/21 17:19	1
13C2-PFDoDA	120		28 - 126	12/09/21 20:50	12/10/21 17:19	1
13C2 PFTeDA	118		10 - 138	12/09/21 20:50	12/10/21 17:19	1
13C3 PFBS	122		23 - 130	12/09/21 20:50	12/10/21 17:19	1
13C3 PFHxS	127		24 - 136	12/09/21 20:50	12/10/21 17:19	1
13C8 PFOS	129		31 - 130	12/09/21 20:50	12/10/21 17:19	1
d3-NMeFOSAA	89		10 - 172	12/09/21 20:50	12/10/21 17:19	1
d5-NEtFOSAA	110		10 - 176	12/09/21 20:50	12/10/21 17:19	1
13C8 FOSA	117		25 - 135	12/09/21 20:50	12/10/21 17:19	1
13C4 PFBA	128		12 - 137	12/09/21 20:50	12/10/21 17:19	1
13C5 PFPeA	138	*	12 - 135	12/09/21 20:50	12/10/21 17:19	1

Lab Sample ID: LCS 410-203655/2-B

Matrix: Solid

Analysis Batch: 203978

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.0	18.62		ug/Kg		74	61 - 147
Perfluoroheptanoic acid	25.0	19.74		ug/Kg		79	61 - 151
Perfluorooctanoic acid	25.0	17.58		ug/Kg		70	62 - 144
Perfluorononanoic acid	25.0	18.84		ug/Kg		75	62 - 148
Perfluorodecanoic acid	25.0	17.12		ug/Kg		68	62 - 142
Perfluorotridecanoic acid	25.0	20.34		ug/Kg		81	57 - 152
Perfluorotetradecanoic acid	25.0	18.40		ug/Kg		74	60 - 147
Perfluorobutanesulfonic acid	22.1	16.40		ug/Kg		74	62 - 137
Perfluorohexanesulfonic acid	22.8	16.15		ug/Kg		71	57 - 135
Perfluorooctanesulfonic acid	23.1	16.94		ug/Kg		73	48 - 134
NEtFOSAA	25.0	17.31		ug/Kg		69	50 - 140
NMeFOSAA	25.0	19.18		ug/Kg		77	53 - 149
Perfluoroheptanesulfonic acid	23.8	17.03		ug/Kg		72	67 - 138
Perfluorodecanesulfonic acid	24.1	17.11		ug/Kg		71	60 - 142
Perfluorooctanesulfonamide	25.0	19.92		ug/Kg		80	52 - 132
Perfluorobutanoic acid	25.0	19.06		ug/Kg		76	50 - 185
Perfluoroundecanoic acid	25.0	18.04		ug/Kg		72	62 - 144
Perfluorododecanoic acid	25.0	17.78		ug/Kg		71	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	17.62		ug/Kg		74	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	16.52		ug/Kg		69	50 - 147
Perfluoropentanoic acid	25.0	17.51		ug/Kg		70	69 - 144

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	113		10 - 178
M2-6:2 FTS	105		10 - 182
13C5 PFHxA	119		11 - 138
13C4 PFHpA	111		15 - 139
13C8 PFOA	120		21 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-203655/2-B

Matrix: Solid

Analysis Batch: 203978

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203655

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C9 PFNA	121		15 - 145
13C6 PFDA	119		21 - 134
13C7 PFUnA	122		15 - 138
13C2-PFDoDA	114		28 - 126
13C2 PFTeDA	116		10 - 138
13C3 PFBS	117		23 - 130
13C3 PFHxS	123		24 - 136
13C8 PFOS	126		31 - 130
d3-NMeFOSAA	102		10 - 172
d5-NEtFOSAA	123		10 - 176
13C8 FOSA	109		25 - 135
13C4 PFBA	115		12 - 137
13C5 PFPeA	120		12 - 135

Lab Sample ID: LCSD 410-203655/3-B

Matrix: Solid

Analysis Batch: 203978

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203655

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	25.0	19.53		ug/Kg		78	61 - 147	4	30
Perfluoroheptanoic acid	25.0	19.95		ug/Kg		80	61 - 151	6	30
Perfluorooctanoic acid	25.0	19.33		ug/Kg		77	62 - 144	11	30
Perfluorononanoic acid	25.0	19.42		ug/Kg		78	62 - 148	3	30
Perfluorodecanoic acid	25.0	17.47		ug/Kg		70	62 - 142	3	30
Perfluorotridecanoic acid	25.0	20.85		ug/Kg		83	57 - 152	9	30
Perfluorotetradecanoic acid	25.0	18.87		ug/Kg		75	60 - 147	3	30
Perfluorobutanesulfonic acid	22.1	16.98		ug/Kg		77	62 - 137	3	30
Perfluorohexanesulfonic acid	22.8	17.44		ug/Kg		76	57 - 135	6	30
Perfluorooctanesulfonic acid	23.1	18.10		ug/Kg		78	48 - 134	8	30
NEtFOSAA	25.0	18.33		ug/Kg		73	50 - 140	3	30
NMeFOSAA	25.0	21.19		ug/Kg		85	53 - 149	11	30
Perfluoroheptanesulfonic acid	23.8	18.59		ug/Kg		78	67 - 138	6	30
Perfluorodecanesulfonic acid	24.1	19.24		ug/Kg		80	60 - 142	9	30
Perfluorooctanesulfonamide	25.0	19.15		ug/Kg		77	52 - 132	3	30
Perfluorobutanoic acid	25.0	19.66		ug/Kg		79	50 - 185	3	30
Perfluoroundecanoic acid	25.0	17.87		ug/Kg		71	62 - 144	2	30
Perfluorododecanoic acid	25.0	19.68		ug/Kg		79	60 - 147	14	30
6:2 Fluorotelomer sulfonic acid	23.7	19.62		ug/Kg		83	53 - 137	7	30
8:2 Fluorotelomer sulfonic acid	24.0	16.64		ug/Kg		69	50 - 147	1	30
Perfluoropentanoic acid	25.0	18.13		ug/Kg		73	69 - 144	8	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
M2-8:2 FTS	110		10 - 178
M2-6:2 FTS	106		10 - 182
13C5 PFHxA	123		11 - 138
13C4 PFHpA	116		15 - 139
13C8 PFOA	116		21 - 133
13C9 PFNA	119		15 - 145
13C6 PFDA	121		21 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-203655/3-B

Matrix: Solid

Analysis Batch: 203978

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203655

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C7 PFunA	125		15 - 138
13C2-PFDoDA	109		28 - 126
13C2 PFTeDA	116		10 - 138
13C3 PFBS	120		23 - 130
13C3 PFHxS	122		24 - 136
13C8 PFOS	114		31 - 130
d3-NMeFOSAA	100		10 - 172
d5-NEtFOSAA	120		10 - 176
13C8 FOSA	112		25 - 135
13C4 PFBA	119		12 - 137
13C5 PFPeA	124		12 - 135

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-818390/1-A

Matrix: Solid

Analysis Batch: 818544

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818390

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	1.0	U	1.0	0.089	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Barium	2.0	U	2.0	0.15	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Chromium	2.0	U	2.0	0.27	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Copper	2.0	U	2.0	0.37	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Manganese	4.0	U	4.0	0.40	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Nickel	2.0	U	2.0	0.47	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Lead	0.60	U	0.60	0.20	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Selenium	1.3	U	1.3	0.13	mg/Kg		12/12/21 07:45	12/13/21 11:43	1
Zinc	8.0	U	8.0	3.1	mg/Kg		12/12/21 07:45	12/13/21 11:43	1

Lab Sample ID: LCSSRM 460-818390/2-A ^5

Matrix: Solid

Analysis Batch: 818544

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818390

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Silver	33.6	18.53		mg/Kg		55.1	48.2 - 73.5	
Arsenic	140	130.6		mg/Kg		93.3	82.9 - 117.9	
Barium	202	174.2		mg/Kg		86.2	81.2 - 118.3	
Beryllium	42.6	38.47		mg/Kg		90.3	81.0 - 119.0	
Cadmium	97.9	92.74		mg/Kg		94.7	80.0 - 119.5	
Chromium	60.4	60.20		mg/Kg		99.7	80.3 - 119.7	
Copper	122	115.3		mg/Kg		94.5	82.8 - 117.2	

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-818390/2-A ^5
Matrix: Solid
Analysis Batch: 818544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 818390

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	457	442.5		mg/Kg		96.8	79.6 - 120.6
Nickel	151	152.6		mg/Kg		101.0	79.5 - 121.2
Lead	56.7	53.17		mg/Kg		93.8	82.9 - 116.9
Selenium	35.5	36.71		mg/Kg		103.4	77.5 - 122.3
Zinc	186	178.6		mg/Kg		96.0	79.0 - 121.0

Lab Sample ID: 460-248608-B-10-C MS
Matrix: Solid
Analysis Batch: 818544

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 818390

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.0	U	5.15	5.02		mg/Kg	⊛	97	75 - 125
Arsenic	0.87	J	10.3	10.30		mg/Kg	⊛	92	75 - 125
Barium	7.2		10.3	17.13		mg/Kg	⊛	97	75 - 125
Beryllium	0.41	U	5.15	4.49		mg/Kg	⊛	87	75 - 125
Cadmium	1.0	U	5.15	4.69		mg/Kg	⊛	91	75 - 125
Chromium	3.9		10.3	14.30		mg/Kg	⊛	101	75 - 125
Copper	3.9		10.3	13.69		mg/Kg	⊛	95	75 - 125
Manganese	5.5		51.5	54.48		mg/Kg	⊛	95	75 - 125
Nickel	0.79	J	10.3	10.80		mg/Kg	⊛	97	75 - 125
Lead	84.4		5.15	88.26	4	mg/Kg	⊛	75	75 - 125
Selenium	1.3	U	10.3	9.85		mg/Kg	⊛	96	75 - 125
Zinc	4.8	J	51.5	54.00		mg/Kg	⊛	96	75 - 125

Lab Sample ID: 460-248608-B-10-B DU
Matrix: Solid
Analysis Batch: 818544

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 818390

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.0	U	1.0	U	mg/Kg	⊛	NC	20
Arsenic	0.87	J	0.782	J	mg/Kg	⊛	10	20
Barium	7.2		7.56		mg/Kg	⊛	6	20
Beryllium	0.41	U	0.41	U	mg/Kg	⊛	NC	20
Cadmium	1.0	U	1.0	U	mg/Kg	⊛	NC	20
Chromium	3.9		4.04		mg/Kg	⊛	3	20
Copper	3.9		3.95		mg/Kg	⊛	1	20
Manganese	5.5		4.69		mg/Kg	⊛	16	20
Nickel	0.79	J	0.670	J	mg/Kg	⊛	17	20
Lead	84.4		86.07		mg/Kg	⊛	2	20
Selenium	1.3	U	1.3	U	mg/Kg	⊛	NC	20
Zinc	4.8	J	4.84	J	mg/Kg	⊛	1	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-818043/1-A

Matrix: Solid

Analysis Batch: 818126

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818043

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		12/10/21 04:11	12/10/21 08:29	1

Lab Sample ID: LCSSRM 460-818043/2-A ^40

Matrix: Solid

Analysis Batch: 818126

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818043

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	16.32		mg/Kg		98.9	74.5 - 124.8

Lab Sample ID: 460-248413-A-3-D MS

Matrix: Solid

Analysis Batch: 818126

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818043

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.12		0.0959	0.196		mg/Kg	⚠	85	80 - 120

Lab Sample ID: 460-248413-A-3-C DU

Matrix: Solid

Analysis Batch: 818126

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 818043

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.12		0.117		mg/Kg	⚠	1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-818165/1-A

Matrix: Solid

Analysis Batch: 818297

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818165

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		12/10/21 15:49	12/11/21 13:21	1

Lab Sample ID: LCSi 460-818165/3-A

Matrix: Solid

Analysis Batch: 818297

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818165

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	707.8		mg/Kg		100	80 - 120

Lab Sample ID: LCSSRM 460-818165/2-A

Matrix: Solid

Analysis Batch: 818297

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818165

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	12.3	11.49		mg/Kg		93.2	84.0 - 114.6

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSSRM 460-818165/4-A

Matrix: Solid

Analysis Batch: 818297

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818165

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	109.0		mg/Kg		83.2	61.3 - 138.2

Lab Sample ID: 460-248542-A-1-D MSS

Matrix: Solid

Analysis Batch: 818297

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818165

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.3	U	46.2	37.39		mg/Kg	✱	81	75 - 125

Lab Sample ID: 460-248542-A-1-E MSI

Matrix: Solid

Analysis Batch: 818297

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 818165

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.3	U	817	723.5		mg/Kg	✱	89	75 - 125

Lab Sample ID: 460-248542-A-1-C DU

Matrix: Solid

Analysis Batch: 818297

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 818165

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.3	U	2.3	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-818403/1-A

Matrix: Solid

Analysis Batch: 818444

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 818403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		12/12/21 11:54	12/12/21 20:05	1

Lab Sample ID: LCSSRM 460-818403/2-A ^20

Matrix: Solid

Analysis Batch: 818444

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818403

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	115	59.04		mg/Kg		51.3	25.6 - 125.2

Lab Sample ID: 460-248550-1 MS

Matrix: Solid

Analysis Batch: 818444

Client Sample ID: 126_PE-1-NW_120621

Prep Type: Total/NA

Prep Batch: 818403

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.26	U	5.08	3.78		mg/Kg	✱	74	11 - 108

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 460-248550-1 MSD

Matrix: Solid

Analysis Batch: 818444

Client Sample ID: 126_PE-1-NW_120621

Prep Type: Total/NA

Prep Batch: 818403

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.26	U	4.74	3.62		mg/Kg	☆	77	11 - 108	4	40

Lab Sample ID: MRL 460-818412/1-A

Matrix: Solid

Analysis Batch: 818444

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 818412

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.0100	0.0106		mg/L		106	50 - 150		

Method: Moisture - Percent Moisture

Lab Sample ID: 460-248548-E-4 DU

Matrix: Solid

Analysis Batch: 818016

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	47.1			45.9		%				3	20
Percent Solids	52.9			54.1		%				2	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

GC/MS VOA

Prep Batch: 817706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	5035	

Analysis Batch: 817833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	8260D	817706
MB 460-817833/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-817833/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-817833/4	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 817852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-2	127_TB-10	Total/NA	Water	8260D	
MB 460-817852/9	Method Blank	Total/NA	Water	8260D	
LCS 460-817852/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-817852/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 817789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	3546	
MB 460-817789/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-817789/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-817789/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-248552-A-60-B MS	Matrix Spike	Total/NA	Solid	3546	
460-248552-A-60-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 817868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	8270E	817789
MB 460-817789/1-A	Method Blank	Total/NA	Solid	8270E	817789
LCS 460-817789/2-A	Lab Control Sample	Total/NA	Solid	8270E	817789
LCSD 460-817789/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	817789
460-248552-A-60-B MS	Matrix Spike	Total/NA	Solid	8270E	817789
460-248552-A-60-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	817789

GC Semi VOA

Prep Batch: 817736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	3546	
MB 460-817736/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-817736/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-817736/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-248403-F-8-C MS	Matrix Spike	Total/NA	Solid	3546	
460-248403-F-8-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 817744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	3546	
MB 460-817744/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-817744/2-A	Lab Control Sample	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

GC Semi VOA (Continued)

Prep Batch: 817744 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 460-817744/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-248403-F-8-F MS	Matrix Spike	Total/NA	Solid	3546	
460-248403-F-8-G MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 817809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	8151A	
MB 460-817809/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-817809/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-817809/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 817815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	8081B	817744
MB 460-817744/1-A	Method Blank	Total/NA	Solid	8081B	817744
LCS 460-817744/2-A	Lab Control Sample	Total/NA	Solid	8081B	817744
LCSD 460-817744/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	817744
460-248403-F-8-F MS	Matrix Spike	Total/NA	Solid	8081B	817744
460-248403-F-8-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8081B	817744

Analysis Batch: 817949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	8082A	817736
MB 460-817736/1-A	Method Blank	Total/NA	Solid	8082A	817736
LCS 460-817736/2-A	Lab Control Sample	Total/NA	Solid	8082A	817736
LCSD 460-817736/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	817736
460-248403-F-8-C MS	Matrix Spike	Total/NA	Solid	8082A	817736
460-248403-F-8-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	817736

Analysis Batch: 817951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	8151A	817809
MB 460-817809/1-A	Method Blank	Total/NA	Solid	8151A	817809
LCS 460-817809/2-A	Lab Control Sample	Total/NA	Solid	8151A	817809
LCSD 460-817809/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	817809

LCMS

Prep Batch: 203655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	SHAKE	
MB 410-203655/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-203655/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
LCSD 410-203655/3-B	Lab Control Sample Dup	Total/NA	Solid	SHAKE	

Cleanup Batch: 203667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	Extract Aliquot	203655
MB 410-203655/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	203655
LCS 410-203655/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	203655
LCSD 410-203655/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	203655

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

LCMS

Analysis Batch: 203978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	537 IDA	203667
MB 410-203655/1-B	Method Blank	Total/NA	Solid	537 IDA	203667
LCS 410-203655/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	203667
LCSD 410-203655/3-B	Lab Control Sample Dup	Total/NA	Solid	537 IDA	203667

Metals

Prep Batch: 818043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	7471B	
MB 460-818043/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-818043/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-248413-A-3-D MS	Matrix Spike	Total/NA	Solid	7471B	
460-248413-A-3-C DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 818126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	7471B	818043
MB 460-818043/1-A	Method Blank	Total/NA	Solid	7471B	818043
LCSSRM 460-818043/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	818043
460-248413-A-3-D MS	Matrix Spike	Total/NA	Solid	7471B	818043
460-248413-A-3-C DU	Duplicate	Total/NA	Solid	7471B	818043

Prep Batch: 818390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	3050B	
MB 460-818390/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-818390/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-248608-B-10-C MS	Matrix Spike	Total/NA	Solid	3050B	
460-248608-B-10-B DU	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 818544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	6020B	818390
MB 460-818390/1-A	Method Blank	Total/NA	Solid	6020B	818390
LCSSRM 460-818390/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	818390
460-248608-B-10-C MS	Matrix Spike	Total/NA	Solid	6020B	818390
460-248608-B-10-B DU	Duplicate	Total/NA	Solid	6020B	818390

General Chemistry

Analysis Batch: 817072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	7196A	

Analysis Batch: 818016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	Moisture	
460-248548-E-1 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-248548-E-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-248548-E-4 DU	Duplicate	Total/NA	Solid	Moisture	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

General Chemistry

Prep Batch: 818165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	3060A	
MB 460-818165/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-818165/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-818165/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-818165/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-248542-A-1-D MSS	Matrix Spike	Total/NA	Solid	3060A	
460-248542-A-1-E MSI	Matrix Spike	Total/NA	Solid	3060A	
460-248542-A-1-C DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 818297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	7196A	818165
MB 460-818165/1-A	Method Blank	Total/NA	Solid	7196A	818165
LCSI 460-818165/3-A	Lab Control Sample	Total/NA	Solid	7196A	818165
LCSSRM 460-818165/2-A	Lab Control Sample	Total/NA	Solid	7196A	818165
LCSSRM 460-818165/4-A	Lab Control Sample	Total/NA	Solid	7196A	818165
460-248542-A-1-D MSS	Matrix Spike	Total/NA	Solid	7196A	818165
460-248542-A-1-E MSI	Matrix Spike	Total/NA	Solid	7196A	818165
460-248542-A-1-C DU	Duplicate	Total/NA	Solid	7196A	818165

Prep Batch: 818403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	9012B	
MB 460-818403/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-818403/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-248550-1 MS	126_PE-1-NW_120621	Total/NA	Solid	9012B	
460-248550-1 MSD	126_PE-1-NW_120621	Total/NA	Solid	9012B	

Prep Batch: 818412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-818412/1-A	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 818444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-248550-1	126_PE-1-NW_120621	Total/NA	Solid	9012B	818403
MB 460-818403/1-A	Method Blank	Total/NA	Solid	9012B	818403
LCSSRM 460-818403/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	818403
MRL 460-818412/1-A	Lab Control Sample	Total/NA	Solid	9012B	818412
460-248550-1 MS	126_PE-1-NW_120621	Total/NA	Solid	9012B	818403
460-248550-1 MSD	126_PE-1-NW_120621	Total/NA	Solid	9012B	818403

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Client Sample ID: 126_PE-1-NW_120621

Lab Sample ID: 460-248550-1

Date Collected: 12/06/21 08:45

Matrix: Solid

Date Received: 12/06/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	817072	12/21/21 08:25	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	818016	12/10/21 00:17	MIE	TAL EDI

Client Sample ID: 126_PE-1-NW_120621

Lab Sample ID: 460-248550-1

Date Collected: 12/06/21 08:45

Matrix: Solid

Date Received: 12/06/21 18:00

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			817706	12/08/21 13:03	YXG	TAL EDI
Total/NA	Analysis	8260D		1	817833	12/09/21 16:51	AAT	TAL EDI
Total/NA	Prep	3546			817789	12/08/21 21:38	GXY	TAL EDI
Total/NA	Analysis	8270E		1	817868	12/09/21 11:49	DAN	TAL EDI
Total/NA	Prep	3546			817744	12/08/21 17:08	ARA	TAL EDI
Total/NA	Analysis	8081B		1	817815	12/09/21 09:13	FAM	TAL EDI
Total/NA	Prep	3546			817736	12/08/21 16:28	ARA	TAL EDI
Total/NA	Analysis	8082A		1	817949	12/09/21 23:01	JHP	TAL EDI
Total/NA	Prep	8151A			817809	12/08/21 23:59	AFR	TAL EDI
Total/NA	Analysis	8151A		1	817951	12/09/21 22:01	JHP	TAL EDI
Total/NA	Prep	SHAKE			203655	12/09/21 20:50	QLP7	ELLE
Total/NA	Cleanup	Extract Aliquot			203667	12/09/21 21:27	QLP7	ELLE
Total/NA	Analysis	537 IDA		1	203978	12/10/21 18:01	QD9Y	ELLE
Total/NA	Prep	3050B			818390	12/12/21 07:45	SXC	TAL EDI
Total/NA	Analysis	6020B		1	818544	12/13/21 15:50	MDC	TAL EDI
Total/NA	Prep	7471B			818043	12/10/21 04:11	TJS	TAL EDI
Total/NA	Analysis	7471B		1	818126	12/10/21 08:54	TJS	TAL EDI
Total/NA	Prep	3060A			818165	12/10/21 15:49	OXG	TAL EDI
Total/NA	Analysis	7196A		1	818297	12/11/21 14:33	OXG	TAL EDI
Total/NA	Prep	9012B			818403	12/12/21 11:54	OXG	TAL EDI
Total/NA	Analysis	9012B		1	818444	12/12/21 20:24	VBG	TAL EDI

Client Sample ID: 127_TB-10

Lab Sample ID: 460-248550-2

Date Collected: 12/06/21 00:00

Matrix: Water

Date Received: 12/06/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	817852	12/09/21 14:40	CAZ	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	02-07-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-10-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-10-22
Minnesota	NELAP	042-999-487	01-05-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	02-17-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-10-22
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-31-22
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	12-20-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-248550-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-248550-1	126_PE-1-NW_120621	Solid	12/06/21 08:45	12/06/21 18:00
460-248550-2	127_TB-10	Water	12/06/21 00:00	12/06/21 18:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Chain of Custody Record

518514

Environment Testing
TestAmerica

TAL-8210

Address: 2455 Third Ave, Bronx, NY

Regulatory Program: ☐ DW ☐ NPDES ☐ PRA ☒ Other: NYSDEC BCP

Client Contact		Project Manager: B. Reiner		Site Contact: M. McBride		Date: 12/06/21		COC No:	
Company Name: Langan		Tel/Email: breiner@langan.com		Lab Contact: P. Greco		Carrier:		1 of 1 COCs	
Address: 300 Kimball Dr.		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y/N) VOCs SVOCs PCBs Pesticides Herbicides Metals including hex and trivalent chromium PFAS 1,4-dioxane cyanide		(M) (M)		Sampler:	
City/State/Zip: Parsippany, NJ		☐ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below _____ ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day						For Lab Use Only:	
Phone: 9735604491		Standard						Walk-in Client:	
Fax:								Lab Sampling:	
Project Name: 2455 Third Ave								Job / SDG No: 248550	
Site: 1405101									
PO #									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	SVOCs	PCBs	Pesticides	Herbicides	Metals including hex and trivalent chromium	PFAS	1,4-dioxane	cyanide	Sample Specific Notes:
126-PE1-NW-120621	12/6/21	0845	G	S	8	N	N	X	X	X	X	X	X	X	X	X	(M) 1
127-TB-10	12/01/21	-	-	AQ	2	N	N	X									(M) 2
 460-248550 Chain of Custody SHORT HOLD																	

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

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: ASP-B and NYSDEC BCP

Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Cor'd: _____		Therm ID No.:	
Relinquished by: Morgan McBride	Company: Langan	Date/Time: 12/6/21 11:00	Received by: [Signature]	Company: J. D.	Date/Time: 12/6/21 11:00		
Relinquished by: [Signature]	Company: [Signature]	Date/Time: 12/6/21 11:00	Received by: [Signature]	Company: [Signature]	Date/Time: 12/6/21 11:00		
Relinquished by: [Signature]	Company: [Signature]	Date/Time: 12/6/21 11:00	Received in Laboratory by: [Signature]	Company: [Signature]	Date/Time: 12/6/21 11:00		

30 25 529

Page ____ of ____

Job Number:

248550

Number of Coolers:

IR Gun #

Cooler Temperatures

RAW		COOLING		RAW		COOLING		RAW		COOLING	
Cooler #1	31°C	21°C	Cooler #4	°C	°C	Cooler #7	°C	°C	Cooler #10	°C	°C
Cooler #2	°C	°C	Cooler #5	°C	°C	Cooler #8	°C	°C	Cooler #11	°C	°C
Cooler #3	°C	°C	Cooler #6	°C	°C	Cooler #9	°C	°C			

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* *Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials:

Date: 12 6 25

[Illegible text]

: Environment Testing
: America

3/4/2022

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-248550-1

Login Number: 248550

List Source: Eurofins Edison

List Number: 1

Creator: Narinkhum, Nudjarin 1

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-248550-1

Login Number: 248550

List Number: 2

Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 12/08/21 09:16 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-251616-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

3/4/2022 4:50:38 PM

Grace Chang, Project Manager II
(732)593-2579

Grace.Chang@Eurofinset.com

Designee for

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Grace Chang
Project Manager II
3/4/2022 4:50:38 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	9
Client Sample Results	10
Surrogate Summary	14
Isotope Dilution Summary	16
QC Sample Results	17
QC Association Summary	39
Lab Chronicle	43
Certification Summary	44
Method Summary	46
Sample Summary	47
Chain of Custody	48
Receipt Checklists	51



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Job ID: 460-251616-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-251616-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 1/31/2022 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

Receipt Exceptions

One or more containers for the following sample(s) was received broken: one broken TB vial in cooler.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 129_PE-10 (460-251616-1) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 02/01/2022 and analyzed on 02/02/2022.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 129_PE-10 (460-251616-1) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 02/02/2022 and analyzed on 02/03/2022.

Dibenz(a,h)anthracene failed the recovery criteria high for LCS 460-826367/2-A. Refer to the QC report for details.

Benzo[g,h,i]perylene failed the recovery criteria low for the MSD of sample 460-251620-2 in batch 460-826414.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Job ID: 460-251616-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Refer to the QC report for details.

The laboratory control sample (LCS) for preparation batch 460-826367 and analytical batch 460-826414 recovered outside control limits for the following analytes: Dibenz(a,h)anthracene. The LCSD recovery was within limits; therefore, the data have been reported.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Sample 129_PE-10 (460-251616-1) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 02/03/2022 and analyzed on 02/04/2022.

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Sample 129_PE-10 (460-251616-1) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 02/03/2022 and analyzed on 02/04/2022.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Sample 129_PE-10 (460-251616-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 02/01/2022 and analyzed on 02/02/2022.

The closing continuing calibration verification (CCVC) associated with batch 460-826205 recovered above the upper control limit for many analytes>. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Sample 129_PE-10 (460-251616-1) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 02/09/2022 and analyzed on 02/11/2022.

No difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Sample 129_PE-10 (460-251616-1) was analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 02/06/2022 and analyzed on 02/07/2022.

Copper and Lead failed the recovery criteria low for the MS of sample 460-251620-2 in batch 460-826991.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Job ID: 460-251616-1 (Continued)

Laboratory: Eurofins Edison (Continued)

HEXAVALENT CHROMIUM

Sample 129_PE-10 (460-251616-1) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 02/05/2022 and analyzed on 02/06/2022.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample 129_PE-10 (460-251616-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 02/02/2022.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Sample 129_PE-10 (460-251616-1) was analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 02/06/2022.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Sample 129_PE-10 (460-251616-1) was analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 02/03/2022.

Cyanide, Total failed the recovery criteria high for the MS of sample 460-251672-2 in batch 460-826506.

Cyanide, Total failed the recovery criteria high for the MSD of sample 460-251672-2 in batch 460-826506.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Sample 129_PE-10 (460-251616-1) was analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 02/02/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Client Sample ID: 129_PE-10

Lab Sample ID: 460-251616-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
2-Butanone (MEK)	17		5.5	0.41	ug/Kg	1	✱		8260D	Total/NA
Acetone	61		6.6	6.3	ug/Kg	1	✱		8260D	Total/NA
Methyl tert-butyl ether	0.64	J	1.1	0.57	ug/Kg	1	✱		8260D	Total/NA
Acenaphthylene	42	J	460	4.7	ug/Kg	1	✱		8270E	Total/NA
Anthracene	42	J	460	14	ug/Kg	1	✱		8270E	Total/NA
Benzo[a]pyrene	67		46	12	ug/Kg	1	✱		8270E	Total/NA
Benzo[b]fluoranthene	26	J	46	12	ug/Kg	1	✱		8270E	Total/NA
Benzo[g,h,i]perylene	450	J	460	14	ug/Kg	1	✱		8270E	Total/NA
Benzo[k]fluoranthene	13	J	46	9.1	ug/Kg	1	✱		8270E	Total/NA
Dibenz(a,h)anthracene	68	*	46	20	ug/Kg	1	✱		8270E	Total/NA
Indeno[1,2,3-cd]pyrene	570		46	18	ug/Kg	1	✱		8270E	Total/NA
Perfluorooctanesulfonic acid	0.33		0.28	0.049	ug/Kg	1	✱		537 (Modified)	Total/NA
Perfluorooctanoic acid	0.050	J	0.28	0.031	ug/Kg	1	✱		537 (Modified)	Total/NA
Arsenic	1.9		1.3	0.14	mg/Kg	1	✱		6020B	Total/NA
Barium	34.2		2.7	0.19	mg/Kg	1	✱		6020B	Total/NA
Beryllium	0.11	J	0.53	0.076	mg/Kg	1	✱		6020B	Total/NA
Chromium	5.4		2.7	0.35	mg/Kg	1	✱		6020B	Total/NA
Copper	8.6		2.7	0.49	mg/Kg	1	✱		6020B	Total/NA
Manganese	76.5		5.3	0.54	mg/Kg	1	✱		6020B	Total/NA
Nickel	4.4		2.7	0.62	mg/Kg	1	✱		6020B	Total/NA
Lead	41.0		0.80	0.27	mg/Kg	1	✱		6020B	Total/NA
Zinc	23.4		10.6	4.1	mg/Kg	1	✱		6020B	Total/NA
Mercury	0.012	J	0.023	0.011	mg/Kg	1	✱		7471B	Total/NA
Cr (III)	5.4		2.0	2.0	mg/Kg	1			7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Client Sample ID: 129_PE-10

Lab Sample ID: 460-251616-1

Date Collected: 01/31/22 10:15

Matrix: Solid

Date Received: 01/31/22 17:30

Percent Solids: 71.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.26	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,1-Dichloroethane	1.1	U	1.1	0.23	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,1-Dichloroethene	1.1	U	1.1	0.25	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,2,4-Trimethylbenzene	1.1	U	1.1	0.27	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,2-Dichlorobenzene	1.1	U	1.1	0.40	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,2-Dichloroethane	1.1	U	1.1	0.33	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,3,5-Trimethylbenzene	1.1	U	1.1	0.35	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,3-Dichlorobenzene	1.1	U	1.1	0.40	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,4-Dichlorobenzene	1.1	U	1.1	0.25	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
1,4-Dioxane	110	U	110	10	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
2-Butanone (MEK)	17		5.5	0.41	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Acetone	61		6.6	6.3	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Benzene	1.1	U	1.1	0.29	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Carbon tetrachloride	1.1	U	1.1	0.43	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Chlorobenzene	1.1	U	1.1	0.20	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Chloroform	1.1	U	1.1	1.1	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
cis-1,2-Dichloroethene	1.1	U	1.1	0.40	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Ethylbenzene	1.1	U	1.1	0.22	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Methyl tert-butyl ether	0.64	J	1.1	0.57	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Methylene Chloride	2.2	U	2.2	1.3	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
n-Butylbenzene	1.1	U	1.1	0.33	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
N-Propylbenzene	1.1	U	1.1	0.19	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
sec-Butylbenzene	1.1	U	1.1	0.32	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
tert-Butylbenzene	1.1	U	1.1	0.31	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Tetrachloroethene	1.1	U	1.1	0.34	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Toluene	1.1	U	1.1	0.26	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
trans-1,2-Dichloroethene	1.1	U	1.1	0.27	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Trichloroethene	1.1	U	1.1	0.36	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Vinyl chloride	1.1	U	1.1	0.60	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1
Xylenes, Total	2.2	U	2.2	0.71	ug/Kg	☆	02/01/22 16:51	02/02/22 15:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 145	02/01/22 16:51	02/02/22 15:22	1
4-Bromofluorobenzene	119		70 - 139	02/01/22 16:51	02/02/22 15:22	1
Dibromofluoromethane (Surr)	108		48 - 150	02/01/22 16:51	02/02/22 15:22	1
Toluene-d8 (Surr)	108		80 - 120	02/01/22 16:51	02/02/22 15:22	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	46	U	46	41	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
2-Methylphenol	460	U	460	17	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
3 & 4 Methylphenol	460	U	460	29	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
Acenaphthene	460	U	460	13	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
Acenaphthylene	42	J	460	4.7	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
Anthracene	42	J	460	14	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
Benzo[a]anthracene	46	U	46	16	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
Benzo[a]pyrene	67		46	12	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
Benzo[b]fluoranthene	26	J	46	12	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
Benzo[g,h,i]perylene	450	J	460	14	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1
Benzo[k]fluoranthene	13	J	46	9.1	ug/Kg	☆	02/02/22 19:25	02/03/22 16:35	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Client Sample ID: 129_PE-10

Lab Sample ID: 460-251616-1

Date Collected: 01/31/22 10:15

Matrix: Solid

Date Received: 01/31/22 17:30

Percent Solids: 71.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	460	U	460	7.9	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Dibenz(a,h)anthracene	68	*	46	20	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Dibenzofuran	460	U	460	6.5	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Fluoranthene	460	U	460	16	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Fluorene	460	U	460	6.3	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Hexachlorobenzene	46	U	46	22	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Indeno[1,2,3-cd]pyrene	570		46	18	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Naphthalene	460	U	460	8.0	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Pentachlorophenol	370	U	370	95	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Phenanthrene	460	U	460	8.2	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Phenol	460	U	460	17	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1
Pyrene	460	U	460	12	ug/Kg	✱	02/02/22 19:25	02/03/22 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	82		10 - 123	02/02/22 19:25	02/03/22 16:35	1
2-Fluorobiphenyl	77		14 - 103	02/02/22 19:25	02/03/22 16:35	1
2-Fluorophenol (Surr)	75		10 - 105	02/02/22 19:25	02/03/22 16:35	1
Nitrobenzene-d5 (Surr)	75		11 - 104	02/02/22 19:25	02/03/22 16:35	1
Phenol-d5 (Surr)	77		15 - 100	02/02/22 19:25	02/03/22 16:35	1
Terphenyl-d14 (Surr)	79		12 - 126	02/02/22 19:25	02/03/22 16:35	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	9.5	U	9.5	1.6	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
4,4'-DDE	9.5	U	9.5	1.1	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
4,4'-DDT	9.5	U	9.5	1.7	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Aldrin	9.5	U	9.5	1.4	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
alpha-BHC	2.8	U	2.8	0.96	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
beta-BHC	2.8	U	2.8	1.1	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Chlordane (technical)	95	U	95	23	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
delta-BHC	2.8	U	2.8	0.58	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Dieldrin	2.8	U	2.8	1.2	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Endosulfan I	9.5	U	9.5	1.4	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Endosulfan II	9.5	U	9.5	2.4	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Endosulfan sulfate	9.5	U	9.5	1.2	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Endrin	9.5	U	9.5	1.4	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Endrin aldehyde	9.5	U	9.5	2.2	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Endrin ketone	9.5	U	9.5	1.8	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
gamma-BHC (Lindane)	2.8	U	2.8	0.87	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Heptachlor	9.5	U	9.5	1.1	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Heptachlor epoxide	9.5	U	9.5	1.4	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Methoxychlor	9.5	U	9.5	2.2	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
Toxaphene	95	U	95	34	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1
cis-Chlordane	9.5	U	9.5	1.5	ug/Kg	✱	02/03/22 10:19	02/04/22 08:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		10 - 150	02/03/22 10:19	02/04/22 08:04	1
DCB Decachlorobiphenyl	69		10 - 150	02/03/22 10:19	02/04/22 08:04	1
Tetrachloro-m-xylene	62		10 - 133	02/03/22 10:19	02/04/22 08:04	1
Tetrachloro-m-xylene	64		10 - 133	02/03/22 10:19	02/04/22 08:04	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Client Sample ID: 129_PE-10

Lab Sample ID: 460-251616-1

Date Collected: 01/31/22 10:15

Matrix: Solid

Date Received: 01/31/22 17:30

Percent Solids: 71.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Aroclor 1221	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Aroclor 1232	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Aroclor 1242	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Aroclor 1248	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Aroclor 1254	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Aroclor 1260	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Aroclor-1262	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Aroclor 1268	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1
Polychlorinated biphenyls, Total	95	U	95	25	ug/Kg	☆	02/03/22 10:03	02/04/22 11:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	116		37 - 150	02/03/22 10:03	02/04/22 11:44	1
DCB Decachlorobiphenyl	113		37 - 150	02/03/22 10:03	02/04/22 11:44	1
Tetrachloro-m-xylene	81		54 - 150	02/03/22 10:03	02/04/22 11:44	1
Tetrachloro-m-xylene	103		54 - 150	02/03/22 10:03	02/04/22 11:44	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	47	U	47	4.9	ug/Kg	☆	02/01/22 18:22	02/02/22 13:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	114		65 - 150	02/01/22 18:22	02/02/22 13:03	1
2,4-Dichlorophenylacetic acid	126		65 - 150	02/01/22 18:22	02/02/22 13:03	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.28	U	0.28	0.069	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
8:2 Fluorotelomer sulfonic acid	0.28	U	0.28	0.024	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
NEtFOSAA	0.28	U	0.28	0.031	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
NMeFOSAA	0.28	U	0.28	0.044	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorobutanesulfonic acid	0.56	U	0.56	0.51	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorobutanoic acid	0.28	U	0.28	0.034	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorodecanesulfonic acid	0.28	U	0.28	0.030	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorodecanoic acid	0.28	U	0.28	0.034	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorododecanoic acid	0.28	U	0.28	0.032	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluoroheptanesulfonic acid	0.28	U	0.28	0.028	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluoroheptanoic acid	0.28	U	0.28	0.034	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorohexanesulfonic acid	0.28	U	0.28	0.027	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorohexanoic acid	0.28	U	0.28	0.027	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorononanoic acid	0.28	U	0.28	0.032	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorooctanesulfonamide	0.28	U	0.28	0.030	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorooctanesulfonic acid	0.33		0.28	0.049	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorooctanoic acid	0.050	J	0.28	0.031	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluoropentanoic acid	0.28	U	0.28	0.034	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorotetradecanoic acid	0.28	U	0.28	0.034	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluorotridecanoic acid	0.28	U	0.28	0.030	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1
Perfluoroundecanoic acid	0.28	U	0.28	0.079	ug/Kg	☆	02/09/22 10:43	02/11/22 02:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	107		10 - 200	02/09/22 10:43	02/11/22 02:05	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Client Sample ID: 129_PE-10

Lab Sample ID: 460-251616-1

Date Collected: 01/31/22 10:15

Matrix: Solid

Date Received: 01/31/22 17:30

Percent Solids: 71.0

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	99		15 - 200	02/09/22 10:43	02/11/22 02:05	1
13C2 PFTeDA	82		10 - 169	02/09/22 10:43	02/11/22 02:05	1
13C3 PFBS	90		27 - 179	02/09/22 10:43	02/11/22 02:05	1
13C4 PFBA	79		28 - 153	02/09/22 10:43	02/11/22 02:05	1
13C4 PFHpA	79		10 - 178	02/09/22 10:43	02/11/22 02:05	1
13C5 PFPeA	81		24 - 161	02/09/22 10:43	02/11/22 02:05	1
13C8 PFOA	79		26 - 159	02/09/22 10:43	02/11/22 02:05	1
13C8 PFOS	91		41 - 154	02/09/22 10:43	02/11/22 02:05	1
d3-NMeFOSAA	82		10 - 178	02/09/22 10:43	02/11/22 02:05	1
d5-NEtFOSAA	101		10 - 193	02/09/22 10:43	02/11/22 02:05	1
13C3 PFHxS	87		24 - 171	02/09/22 10:43	02/11/22 02:05	1
13C5 PFHxA	77		10 - 174	02/09/22 10:43	02/11/22 02:05	1
13C6 PFDA	88		26 - 161	02/09/22 10:43	02/11/22 02:05	1
13C7 PFUnA	91		12 - 173	02/09/22 10:43	02/11/22 02:05	1
13C8 FOSA	55		14 - 163	02/09/22 10:43	02/11/22 02:05	1
13C2-PFDoDA	84		11 - 166	02/09/22 10:43	02/11/22 02:05	1
13C9 PFNA	90		26 - 165	02/09/22 10:43	02/11/22 02:05	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	1.3	0.12	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Arsenic	1.9		1.3	0.14	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Barium	34.2		2.7	0.19	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Beryllium	0.11	J	0.53	0.076	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Cadmium	1.3	U	1.3	0.15	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Chromium	5.4		2.7	0.35	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Copper	8.6		2.7	0.49	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Manganese	76.5		5.3	0.54	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Nickel	4.4		2.7	0.62	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Lead	41.0		0.80	0.27	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Selenium	1.7	U	1.7	0.17	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1
Zinc	23.4		10.6	4.1	mg/Kg	✱	02/06/22 06:59	02/07/22 17:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.023	0.011	mg/Kg	✱	02/02/22 03:12	02/02/22 08:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	5.4		2.0	2.0	mg/Kg			02/06/22 20:15	1
Cr (VI)	2.8	U	2.8	1.2	mg/Kg	✱	02/05/22 08:52	02/06/22 15:28	1
Cyanide, Total	0.33	U	0.33	0.18	mg/Kg	✱	02/03/22 11:53	02/03/22 14:01	1
Percent Moisture	29.0		1.0	1.0	%			02/02/22 02:57	1
Percent Solids	71.0		1.0	1.0	%			02/02/22 02:57	1

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-251616-1	129_PE-10	109	119	108	108
LCS 460-826200/7	Lab Control Sample	93	102	94	99
LCSD 460-826200/8	Lab Control Sample Dup	90	97	93	94
MB 460-826200/11	Method Blank	90	103	100	90

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-123)	FBP (14-103)	2FP (10-105)	NBZ (11-104)	PHL (15-100)	TPHL (12-126)
460-251616-1	129_PE-10	82	77	75	75	77	79
460-251620-E-2-A MSD	Matrix Spike Duplicate	91	84	84	84	84	84
460-251620-F-2-A MS	Matrix Spike	89	84	82	82	84	83
LCS 460-826367/2-A	Lab Control Sample	93	86	86	85	87	87
LCSD 460-826367/3-A	Lab Control Sample Dup	90	85	84	84	88	86
MB 460-826367/1-A	Method Blank	89	88	90	89	91	93

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-251362-B-1-H MS	Matrix Spike		52 p	69	
460-251362-B-1-I MSD	Matrix Spike Duplicate	89		79	
460-251616-1	129_PE-10	69	62	64	62
LCS 460-826475/2-A	Lab Control Sample	76	76	80	77
LCSD 460-826475/3-A	Lab Control Sample Dup	79	77	77	76
MB 460-826475/1-A	Method Blank	116	109	99	99

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-251362-B-1-E MS	Matrix Spike	103	101	96	68
460-251362-B-1-F MSD	Matrix Spike Duplicate	102	99	96	68
460-251616-1	129_PE-10	113	116	103	81
LCS 460-826465/2-A	Lab Control Sample	114	114	108	77
LCSD 460-826465/3-A	Lab Control Sample Dup	105	106	99	71
MB 460-826465/1-A	Method Blank	134	140	123	102

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-251616-1	129_PE-10	126	114
LCS 460-826147/2-A	Lab Control Sample	129	118
LCSD 460-826147/3-A	Lab Control Sample Dup	126	116
MB 460-826147/1-A	Method Blank	125	115

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (10-200)	M282FTS (15-200)	PFTDA (10-169)	C3PFBS (27-179)	PFBA (28-153)	C4PFHA (10-178)	PFPeA (24-161)	C8PFOA (26-159)
460-251533-A-24-E MS	Matrix Spike	104	103	100	100	76	78	73	80
460-251533-A-24-F MSD	Matrix Spike Duplicate	94	94	92	93	70	77	69	75
460-251616-1	129_PE-10	107	99	82	90	79	79	81	79
LCS 410-222270/2-B	Lab Control Sample	84	79	84	93	88	87	84	87
MB 410-222270/1-B	Method Blank	93	80	92	96	99	100	92	100

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C8PFOS (41-154)	d3NMFOS (10-178)	d5NEFOS (10-193)	C3PFHS (24-171)	13C5PHA (10-174)	C6PFDA (26-161)	13C7PUA (12-173)	PFOSA (14-163)
460-251533-A-24-E MS	Matrix Spike	98	49	66	99	76	90	87	62
460-251533-A-24-F MSD	Matrix Spike Duplicate	93	46	62	94	72	86	86	61
460-251616-1	129_PE-10	91	82	101	87	77	88	91	55
LCS 410-222270/2-B	Lab Control Sample	90	60	65	92	86	91	92	73
MB 410-222270/1-B	Method Blank	102	66	78	101	101	97	99	83

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (11-166)	C9PFNA (26-165)
460-251533-A-24-E MS	Matrix Spike	105	85
460-251533-A-24-F MSD	Matrix Spike Duplicate	94	81
460-251616-1	129_PE-10	84	90
LCS 410-222270/2-B	Lab Control Sample	83	94
MB 410-222270/1-B	Method Blank	91	104

Surrogate Legend

M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
PFDODA = 13C2-PFDODA
C9PFNA = 13C9 PFNA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-826200/11

Matrix: Solid

Analysis Batch: 826200

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			02/02/22 10:18	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			02/02/22 10:18	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			02/02/22 10:18	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			02/02/22 10:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			02/02/22 10:18	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			02/02/22 10:18	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			02/02/22 10:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			02/02/22 10:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			02/02/22 10:18	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			02/02/22 10:18	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			02/02/22 10:18	1
Acetone	6.0	U	6.0	5.7	ug/Kg			02/02/22 10:18	1
Benzene	1.0	U	1.0	0.26	ug/Kg			02/02/22 10:18	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			02/02/22 10:18	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			02/02/22 10:18	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			02/02/22 10:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			02/02/22 10:18	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			02/02/22 10:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			02/02/22 10:18	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			02/02/22 10:18	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/02/22 10:18	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			02/02/22 10:18	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/02/22 10:18	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			02/02/22 10:18	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			02/02/22 10:18	1
Toluene	1.0	U	1.0	0.23	ug/Kg			02/02/22 10:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			02/02/22 10:18	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			02/02/22 10:18	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			02/02/22 10:18	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			02/02/22 10:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 145		02/02/22 10:18	1
4-Bromofluorobenzene	103		70 - 139		02/02/22 10:18	1
Dibromofluoromethane (Surr)	100		48 - 150		02/02/22 10:18	1
Toluene-d8 (Surr)	90		80 - 120		02/02/22 10:18	1

Lab Sample ID: LCS 460-826200/7

Matrix: Solid

Analysis Batch: 826200

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.3		ug/Kg		97	78 - 132
1,1-Dichloroethane	20.0	20.9		ug/Kg		105	76 - 129
1,1-Dichloroethene	20.0	20.5		ug/Kg		102	77 - 132
1,2,4-Trimethylbenzene	20.0	22.8		ug/Kg		114	79 - 120
1,2-Dichlorobenzene	20.0	23.1		ug/Kg		115	80 - 120
1,2-Dichloroethane	20.0	19.3		ug/Kg		97	70 - 132

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-826200/7

Matrix: Solid

Analysis Batch: 826200

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	20.0	21.9		ug/Kg		109	79 - 120
1,3-Dichlorobenzene	20.0	22.8		ug/Kg		114	80 - 120
1,4-Dichlorobenzene	20.0	23.0		ug/Kg		115	80 - 120
1,4-Dioxane	400	490		ug/Kg		122	73 - 136
2-Butanone (MEK)	100	108		ug/Kg		108	75 - 120
Acetone	100	88.4		ug/Kg		88	63 - 131
Benzene	20.0	20.3		ug/Kg		102	80 - 123
Carbon tetrachloride	20.0	19.9		ug/Kg		100	72 - 136
Chlorobenzene	20.0	22.0		ug/Kg		110	80 - 120
Chloroform	20.0	19.8		ug/Kg		99	79 - 126
cis-1,2-Dichloroethene	20.0	21.1		ug/Kg		106	80 - 123
Ethylbenzene	20.0	23.0		ug/Kg		115	80 - 120
Methyl tert-butyl ether	20.0	22.0		ug/Kg		110	80 - 125
Methylene Chloride	20.0	21.9		ug/Kg		109	76 - 127
m-Xylene & p-Xylene	20.0	22.2		ug/Kg		111	80 - 120
n-Butylbenzene	20.0	23.4		ug/Kg		117	77 - 123
N-Propylbenzene	20.0	22.7		ug/Kg		113	78 - 120
o-Xylene	20.0	22.5		ug/Kg		112	80 - 120
sec-Butylbenzene	20.0	22.3		ug/Kg		112	78 - 120
tert-Butylbenzene	20.0	22.1		ug/Kg		110	76 - 120
Tetrachloroethene	20.0	21.6		ug/Kg		108	78 - 123
Toluene	20.0	21.1		ug/Kg		105	80 - 120
trans-1,2-Dichloroethene	20.0	23.5		ug/Kg		118	78 - 128
Trichloroethene	20.0	21.1		ug/Kg		105	79 - 120
Vinyl chloride	20.0	18.9		ug/Kg		94	56 - 147
Xylenes, Total	40.0	44.7		ug/Kg		112	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		77 - 145
4-Bromofluorobenzene	102		70 - 139
Dibromofluoromethane (Surr)	94		48 - 150
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 460-826200/8

Matrix: Solid

Analysis Batch: 826200

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	19.2		ug/Kg		96	78 - 132	1	30
1,1-Dichloroethane	20.0	20.0		ug/Kg		100	76 - 129	4	30
1,1-Dichloroethene	20.0	18.7		ug/Kg		93	77 - 132	9	30
1,2,4-Trimethylbenzene	20.0	20.4		ug/Kg		102	79 - 120	11	30
1,2-Dichlorobenzene	20.0	20.4		ug/Kg		102	80 - 120	12	30
1,2-Dichloroethane	20.0	18.0		ug/Kg		90	70 - 132	7	30
1,3,5-Trimethylbenzene	20.0	19.8		ug/Kg		99	79 - 120	10	30
1,3-Dichlorobenzene	20.0	20.6		ug/Kg		103	80 - 120	10	30
1,4-Dichlorobenzene	20.0	20.5		ug/Kg		103	80 - 120	11	30
1,4-Dioxane	400	486		ug/Kg		121	73 - 136	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-826200/8

Matrix: Solid

Analysis Batch: 826200

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	100	95.2		ug/Kg		95	75 - 120	13	30
Acetone	100	82.6		ug/Kg		83	63 - 131	7	30
Benzene	20.0	18.9		ug/Kg		94	80 - 123	7	30
Carbon tetrachloride	20.0	18.4		ug/Kg		92	72 - 136	8	30
Chlorobenzene	20.0	19.8		ug/Kg		99	80 - 120	10	30
Chloroform	20.0	18.6		ug/Kg		93	79 - 126	6	30
cis-1,2-Dichloroethene	20.0	20.0		ug/Kg		100	80 - 123	5	30
Ethylbenzene	20.0	20.4		ug/Kg		102	80 - 120	12	30
Methyl tert-butyl ether	20.0	21.7		ug/Kg		109	80 - 125	1	30
Methylene Chloride	20.0	20.8		ug/Kg		104	76 - 127	5	30
m-Xylene & p-Xylene	20.0	20.7		ug/Kg		103	80 - 120	7	30
n-Butylbenzene	20.0	21.2		ug/Kg		106	77 - 123	10	30
N-Propylbenzene	20.0	20.1		ug/Kg		100	78 - 120	12	30
o-Xylene	20.0	20.1		ug/Kg		101	80 - 120	11	30
sec-Butylbenzene	20.0	20.0		ug/Kg		100	78 - 120	11	30
tert-Butylbenzene	20.0	19.3		ug/Kg		96	76 - 120	13	30
Tetrachloroethene	20.0	19.7		ug/Kg		98	78 - 123	9	30
Toluene	20.0	19.1		ug/Kg		95	80 - 120	10	30
trans-1,2-Dichloroethene	20.0	22.2		ug/Kg		111	78 - 128	6	30
Trichloroethene	20.0	19.5		ug/Kg		98	79 - 120	8	30
Vinyl chloride	20.0	17.9		ug/Kg		90	56 - 147	5	30
Xylenes, Total	40.0	40.8		ug/Kg		102	80 - 120	9	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		77 - 145
4-Bromofluorobenzene	97		70 - 139
Dibromofluoromethane (Surr)	93		48 - 150
Toluene-d8 (Surr)	94		80 - 120

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-826367/1-A

Matrix: Solid

Analysis Batch: 826414

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826367

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	33	U	33	29	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
2-Methylphenol	330	U	330	12	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Acenaphthene	330	U	330	9.4	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Acenaphthylene	330	U	330	3.3	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Anthracene	330	U	330	10	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Chrysene	330	U	330	5.6	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		02/02/22 19:25	02/03/22 07:23	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-826367/1-A

Matrix: Solid

Analysis Batch: 826414

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826367

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	330	U	330	4.6	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Fluoranthene	330	U	330	12	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Fluorene	330	U	330	4.5	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Hexachlorobenzene	33	U	33	16	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Naphthalene	330	U	330	5.7	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Pentachlorophenol	270	U	270	68	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Phenanthrene	330	U	330	5.8	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Phenol	330	U	330	12	ug/Kg		02/02/22 19:25	02/03/22 07:23	1
Pyrene	330	U	330	8.2	ug/Kg		02/02/22 19:25	02/03/22 07:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		10 - 123	02/02/22 19:25	02/03/22 07:23	1
2-Fluorobiphenyl	88		14 - 103	02/02/22 19:25	02/03/22 07:23	1
2-Fluorophenol (Surr)	90		10 - 105	02/02/22 19:25	02/03/22 07:23	1
Nitrobenzene-d5 (Surr)	89		11 - 104	02/02/22 19:25	02/03/22 07:23	1
Phenol-d5 (Surr)	91		15 - 100	02/02/22 19:25	02/03/22 07:23	1
Terphenyl-d14 (Surr)	93		12 - 126	02/02/22 19:25	02/03/22 07:23	1

Lab Sample ID: LCS 460-826367/2-A

Matrix: Solid

Analysis Batch: 826414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	3330	2400		ug/Kg		72	31 - 81
2-Methylphenol	3330	3400		ug/Kg		102	63 - 108
3 & 4 Methylphenol	3330	3360		ug/Kg		101	61 - 108
Acenaphthene	3330	3450		ug/Kg		104	53 - 110
Acenaphthylene	3330	3260		ug/Kg		98	64 - 108
Anthracene	3330	3360		ug/Kg		101	67 - 114
Benzo[a]anthracene	3330	3390		ug/Kg		102	67 - 115
Benzo[a]pyrene	3330	3390		ug/Kg		102	73 - 123
Benzo[b]fluoranthene	3330	3820		ug/Kg		115	70 - 125
Benzo[g,h,i]perylene	3330	3500		ug/Kg		105	61 - 113
Benzo[k]fluoranthene	3330	3500		ug/Kg		105	67 - 115
Chrysene	3330	3310		ug/Kg		99	71 - 122
Dibenz(a,h)anthracene	3330	3990	*	ug/Kg		120	66 - 119
Dibenzofuran	3330	3460		ug/Kg		104	65 - 108
Fluoranthene	3330	3400		ug/Kg		102	61 - 106
Fluorene	3330	3520		ug/Kg		106	65 - 109
Hexachlorobenzene	3330	3280		ug/Kg		98	61 - 113
Indeno[1,2,3-cd]pyrene	3330	3510		ug/Kg		105	62 - 121
Naphthalene	3330	3230		ug/Kg		97	63 - 106
Pentachlorophenol	6670	6680		ug/Kg		100	44 - 126
Phenanthrene	3330	3330		ug/Kg		100	66 - 112
Phenol	3330	3320		ug/Kg		100	63 - 110
Pyrene	3330	3430		ug/Kg		103	61 - 111

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-826367/2-A

Matrix: Solid

Analysis Batch: 826414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826367

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	93		10 - 123
2-Fluorobiphenyl	86		14 - 103
2-Fluorophenol (Surr)	86		10 - 105
Nitrobenzene-d5 (Surr)	85		11 - 104
Phenol-d5 (Surr)	87		15 - 100
Terphenyl-d14 (Surr)	87		12 - 126

Lab Sample ID: LCSD 460-826367/3-A

Matrix: Solid

Analysis Batch: 826414

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826367

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
1,4-Dioxane	3330	2400		ug/Kg		72	31 - 81	0	30	
2-Methylphenol	3330	3400		ug/Kg		102	63 - 108	0	30	
3 & 4 Methylphenol	3330	3350		ug/Kg		100	61 - 108	0	30	
Acenaphthene	3330	3430		ug/Kg		103	53 - 110	1	30	
Acenaphthylene	3330	3210		ug/Kg		96	64 - 108	1	30	
Anthracene	3330	3320		ug/Kg		100	67 - 114	1	30	
Benzo[a]anthracene	3330	3280		ug/Kg		98	67 - 115	3	30	
Benzo[a]pyrene	3330	3380		ug/Kg		101	73 - 123	0	30	
Benzo[b]fluoranthene	3330	3710		ug/Kg		111	70 - 125	3	30	
Benzo[g,h,i]perylene	3330	3460		ug/Kg		104	61 - 113	1	30	
Benzo[k]fluoranthene	3330	3450		ug/Kg		103	67 - 115	2	30	
Chrysene	3330	3240		ug/Kg		97	71 - 122	2	30	
Dibenz(a,h)anthracene	3330	3930		ug/Kg		118	66 - 119	1	30	
Dibenzofuran	3330	3440		ug/Kg		103	65 - 108	1	30	
Fluoranthene	3330	3360		ug/Kg		101	61 - 106	1	30	
Fluorene	3330	3470		ug/Kg		104	65 - 109	1	30	
Hexachlorobenzene	3330	3230		ug/Kg		97	61 - 113	2	30	
Indeno[1,2,3-cd]pyrene	3330	3550		ug/Kg		107	62 - 121	1	30	
Naphthalene	3330	3280		ug/Kg		98	63 - 106	1	30	
Pentachlorophenol	6670	6610		ug/Kg		99	44 - 126	1	30	
Phenanthrene	3330	3270		ug/Kg		98	66 - 112	2	30	
Phenol	3330	3300		ug/Kg		99	63 - 110	1	30	
Pyrene	3330	3360		ug/Kg		101	61 - 111	2	30	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	90		10 - 123
2-Fluorobiphenyl	85		14 - 103
2-Fluorophenol (Surr)	84		10 - 105
Nitrobenzene-d5 (Surr)	84		11 - 104
Phenol-d5 (Surr)	88		15 - 100
Terphenyl-d14 (Surr)	86		12 - 126

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-251620-E-2-A MSD

Matrix: Solid

Analysis Batch: 826414

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 826367

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	39	U	3930	2600		ug/Kg	✱	66	31 - 81	2	30
2-Methylphenol	390	U	3930	3820		ug/Kg	✱	97	63 - 108	0	30
3 & 4 Methylphenol	390	U	3930	3820		ug/Kg	✱	97	61 - 108	1	30
Acenaphthene	390	U	3930	3990		ug/Kg	✱	102	53 - 110	2	30
Acenaphthylene	390	U	3930	3760		ug/Kg	✱	96	64 - 108	2	30
Anthracene	390	U	3930	3910		ug/Kg	✱	100	67 - 114	2	30
Benzo[a]anthracene	39	U	3930	3930		ug/Kg	✱	100	67 - 115	1	30
Benzo[a]pyrene	39	U	3930	4010		ug/Kg	✱	102	73 - 123	3	30
Benzo[b]fluoranthene	39	U	3930	4580		ug/Kg	✱	117	70 - 125	7	30
Benzo[g,h,i]perylene	390	U	3930	2210	*	ug/Kg	✱	56	61 - 113	25	30
Benzo[k]fluoranthene	39	U	3930	4270		ug/Kg	✱	109	67 - 115	1	30
Chrysene	390	U	3930	3750		ug/Kg	✱	95	71 - 122	1	30
Dibenz(a,h)anthracene	39	U *	3930	2850		ug/Kg	✱	73	66 - 119	26	30
Dibenzofuran	390	U	3930	3940		ug/Kg	✱	100	65 - 108	0	30
Fluoranthene	390	U	3930	3980		ug/Kg	✱	101	61 - 106	2	30
Fluorene	390	U	3930	4050		ug/Kg	✱	103	65 - 109	2	30
Hexachlorobenzene	39	U	3930	3810		ug/Kg	✱	97	61 - 113	1	30
Indeno[1,2,3-cd]pyrene	39	U	3930	2580		ug/Kg	✱	66	62 - 121	17	30
Naphthalene	390	U	3930	3750		ug/Kg	✱	95	63 - 106	1	30
Pentachlorophenol	310	U	7850	8070		ug/Kg	✱	103	44 - 126	3	30
Phenanthrene	390	U	3930	3840		ug/Kg	✱	98	66 - 112	0	30
Phenol	390	U	3930	3760		ug/Kg	✱	96	63 - 110	0	30
Pyrene	390	U	3930	3860		ug/Kg	✱	98	61 - 111	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	91		10 - 123
2-Fluorobiphenyl	84		14 - 103
2-Fluorophenol (Surr)	84		10 - 105
Nitrobenzene-d5 (Surr)	84		11 - 104
Phenol-d5 (Surr)	84		15 - 100
Terphenyl-d14 (Surr)	84		12 - 126

Lab Sample ID: 460-251620-F-2-A MS

Matrix: Solid

Analysis Batch: 826414

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826367

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	39	U	3910	2670		ug/Kg	✱	68	31 - 81
2-Methylphenol	390	U	3910	3800		ug/Kg	✱	97	63 - 108
3 & 4 Methylphenol	390	U	3910	3770		ug/Kg	✱	97	61 - 108
Acenaphthene	390	U	3910	3920		ug/Kg	✱	100	53 - 110
Acenaphthylene	390	U	3910	3690		ug/Kg	✱	95	64 - 108
Anthracene	390	U	3910	3830		ug/Kg	✱	98	67 - 114
Benzo[a]anthracene	39	U	3910	3880		ug/Kg	✱	99	67 - 115
Benzo[a]pyrene	39	U	3910	3890		ug/Kg	✱	100	73 - 123
Benzo[b]fluoranthene	39	U	3910	4280		ug/Kg	✱	110	70 - 125
Benzo[g,h,i]perylene	390	U	3910	2850		ug/Kg	✱	73	61 - 113
Benzo[k]fluoranthene	39	U	3910	4250		ug/Kg	✱	109	67 - 115

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-251620-F-2-A MS

Matrix: Solid

Analysis Batch: 826414

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826367

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	390	U	3910	3730		ug/Kg	✱	95	71 - 122
Dibenz(a,h)anthracene	39	U *	3910	3690		ug/Kg	✱	95	66 - 119
Dibenzofuran	390	U	3910	3920		ug/Kg	✱	100	65 - 108
Fluoranthene	390	U	3910	3900		ug/Kg	✱	100	61 - 106
Fluorene	390	U	3910	3970		ug/Kg	✱	102	65 - 109
Hexachlorobenzene	39	U	3910	3760		ug/Kg	✱	96	61 - 113
Indeno[1,2,3-cd]pyrene	39	U	3910	3050		ug/Kg	✱	78	62 - 121
Naphthalene	390	U	3910	3700		ug/Kg	✱	95	63 - 106
Pentachlorophenol	310	U	7810	7870		ug/Kg	✱	101	44 - 126
Phenanthrene	390	U	3910	3820		ug/Kg	✱	98	66 - 112
Phenol	390	U	3910	3750		ug/Kg	✱	96	63 - 110
Pyrene	390	U	3910	3750		ug/Kg	✱	96	61 - 111

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2,4,6-Tribromophenol (Surr)	89		10 - 123
2-Fluorobiphenyl	84		14 - 103
2-Fluorophenol (Surr)	82		10 - 105
Nitrobenzene-d5 (Surr)	82		11 - 104
Phenol-d5 (Surr)	84		15 - 100
Terphenyl-d14 (Surr)	83		12 - 126

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-826475/1-A

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826475

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/03/22 10:19	02/04/22 07:00	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-826475/1-A

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826475

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Toxaphene	67	U	67	24	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Toxaphene	67	U	67	24	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/03/22 10:19	02/04/22 07:00	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	109		10 - 150				02/03/22 10:19	02/04/22 07:00	1
DCB Decachlorobiphenyl	116		10 - 150				02/03/22 10:19	02/04/22 07:00	1
Tetrachloro-m-xylene	99		10 - 133				02/03/22 10:19	02/04/22 07:00	1
Tetrachloro-m-xylene	99		10 - 133				02/03/22 10:19	02/04/22 07:00	1

Lab Sample ID: LCS 460-826475/2-A

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826475

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	133	127		ug/Kg		96	70 - 140
4,4'-DDD	133	125		ug/Kg		94	70 - 140
4,4'-DDE	133	125		ug/Kg		94	71 - 137
4,4'-DDE	133	119		ug/Kg		89	71 - 137
4,4'-DDT	133	130		ug/Kg		97	63 - 131
4,4'-DDT	133	122		ug/Kg		91	63 - 131
Aldrin	133	123		ug/Kg		92	74 - 140
Aldrin	133	120		ug/Kg		90	74 - 140
alpha-BHC	133	125		ug/Kg		94	72 - 142
alpha-BHC	133	121		ug/Kg		91	72 - 142
beta-BHC	133	125		ug/Kg		93	65 - 137
beta-BHC	133	126		ug/Kg		95	65 - 137
delta-BHC	133	120		ug/Kg		90	70 - 143
delta-BHC	133	127		ug/Kg		96	70 - 143
Dieldrin	133	126		ug/Kg		95	70 - 135

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-826475/2-A

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826475

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dieldrin	133	121		ug/Kg		91	70 - 135
Endosulfan I	133	125		ug/Kg		94	68 - 135
Endosulfan I	133	118		ug/Kg		89	68 - 135
Endosulfan II	133	129		ug/Kg		97	64 - 130
Endosulfan II	133	127		ug/Kg		95	64 - 130
Endosulfan sulfate	133	125		ug/Kg		94	66 - 143
Endosulfan sulfate	133	122		ug/Kg		91	66 - 143
Endrin	133	118		ug/Kg		89	68 - 136
Endrin	133	119		ug/Kg		89	68 - 136
Endrin aldehyde	133	120		ug/Kg		90	68 - 132
Endrin aldehyde	133	123		ug/Kg		92	68 - 132
Endrin ketone	133	129		ug/Kg		97	60 - 150
Endrin ketone	133	122		ug/Kg		91	60 - 150
gamma-BHC (Lindane)	133	128		ug/Kg		96	70 - 134
gamma-BHC (Lindane)	133	119		ug/Kg		89	70 - 134
Heptachlor	133	129		ug/Kg		97	69 - 134
Heptachlor	133	120		ug/Kg		90	69 - 134
Heptachlor epoxide	133	124		ug/Kg		93	70 - 135
Heptachlor epoxide	133	120		ug/Kg		90	70 - 135
Methoxychlor	133	127		ug/Kg		96	57 - 135
Methoxychlor	133	124		ug/Kg		93	57 - 135
cis-Chlordane	133	123		ug/Kg		92	70 - 136
cis-Chlordane	133	119		ug/Kg		89	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	76		10 - 150
DCB Decachlorobiphenyl	76		10 - 150
Tetrachloro-m-xylene	77		10 - 133
Tetrachloro-m-xylene	80		10 - 133

Lab Sample ID: LCSD 460-826475/3-A

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826475

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	133	129		ug/Kg		97	70 - 140	1	30
4,4'-DDD	133	126		ug/Kg		94	70 - 140	0	30
4,4'-DDE	133	125		ug/Kg		94	71 - 137	0	30
4,4'-DDE	133	118		ug/Kg		89	71 - 137	0	30
4,4'-DDT	133	131		ug/Kg		99	63 - 131	1	30
4,4'-DDT	133	121		ug/Kg		91	63 - 131	0	30
Aldrin	133	123		ug/Kg		93	74 - 140	0	30
Aldrin	133	119		ug/Kg		89	74 - 140	1	30
alpha-BHC	133	125		ug/Kg		94	72 - 142	0	30
alpha-BHC	133	122		ug/Kg		92	72 - 142	1	30
beta-BHC	133	125		ug/Kg		94	65 - 137	1	30
beta-BHC	133	127		ug/Kg		95	65 - 137	1	30
delta-BHC	133	121		ug/Kg		91	70 - 143	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-826475/3-A

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826475

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
delta-BHC	133	128		ug/Kg		96	70 - 143	0	30
Dieldrin	133	126		ug/Kg		94	70 - 135	0	30
Dieldrin	133	120		ug/Kg		90	70 - 135	1	30
Endosulfan I	133	125		ug/Kg		94	68 - 135	0	30
Endosulfan I	133	118		ug/Kg		88	68 - 135	0	30
Endosulfan II	133	130		ug/Kg		97	64 - 130	1	30
Endosulfan II	133	127		ug/Kg		95	64 - 130	0	30
Endosulfan sulfate	133	127		ug/Kg		95	66 - 143	2	30
Endosulfan sulfate	133	124		ug/Kg		93	66 - 143	2	30
Endrin	133	118		ug/Kg		89	68 - 136	0	30
Endrin	133	118		ug/Kg		89	68 - 136	0	30
Endrin aldehyde	133	123		ug/Kg		92	68 - 132	2	30
Endrin aldehyde	133	124		ug/Kg		93	68 - 132	1	30
Endrin ketone	133	132		ug/Kg		99	60 - 150	2	30
Endrin ketone	133	124		ug/Kg		93	60 - 150	2	30
gamma-BHC (Lindane)	133	128		ug/Kg		96	70 - 134	0	30
gamma-BHC (Lindane)	133	119		ug/Kg		90	70 - 134	1	30
Heptachlor	133	130		ug/Kg		98	69 - 134	1	30
Heptachlor	133	119		ug/Kg		90	69 - 134	0	30
Heptachlor epoxide	133	125		ug/Kg		94	70 - 135	0	30
Heptachlor epoxide	133	119		ug/Kg		89	70 - 135	1	30
Methoxychlor	133	131		ug/Kg		98	57 - 135	2	30
Methoxychlor	133	125		ug/Kg		94	57 - 135	1	30
cis-Chlordane	133	123		ug/Kg		92	70 - 136	0	30
cis-Chlordane	133	118		ug/Kg		88	70 - 136	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	77		10 - 150
DCB Decachlorobiphenyl	79		10 - 150
Tetrachloro-m-xylene	76		10 - 133
Tetrachloro-m-xylene	77		10 - 133

Lab Sample ID: 460-251362-B-1-H MS

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	8.2	U	162	142		ug/Kg	✱	87	70 - 140
4,4'-DDE	8.2	U	162	134		ug/Kg	✱	83	71 - 137
4,4'-DDT	8.2	U	162	139		ug/Kg	✱	86	63 - 131
Aldrin	8.2	U	162	133		ug/Kg	✱	82	74 - 140
alpha-BHC	2.4	U	162	136		ug/Kg	✱	84	72 - 142
beta-BHC	2.4	U	162	133		ug/Kg	✱	82	65 - 137
delta-BHC	2.4	U	162	143		ug/Kg	✱	88	70 - 143
Dieldrin	2.4	U	162	137		ug/Kg	✱	84	70 - 135
Endosulfan I	8.2	U	162	133		ug/Kg	✱	82	68 - 135
Endosulfan II	8.2	U	162	141		ug/Kg	✱	87	64 - 130
Endosulfan sulfate	8.2	U	162	118		ug/Kg	✱	73	66 - 143

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-251362-B-1-H MS

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin	8.2	U	162	135		ug/Kg	✱	83	68 - 136
Endrin aldehyde	8.2	U	162	110		ug/Kg	✱	68	68 - 132
Endrin ketone	8.2	U	162	134		ug/Kg	✱	82	60 - 150
gamma-BHC (Lindane)	2.4	U	162	139		ug/Kg	✱	86	70 - 134
Heptachlor	8.2	U	162	140		ug/Kg	✱	86	69 - 134
Heptachlor epoxide	8.2	U	162	134		ug/Kg	✱	82	70 - 135
Methoxychlor	8.2	U	162	133		ug/Kg	✱	82	57 - 135
cis-Chlordane	8.2	U	162	132		ug/Kg	✱	81	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	52	p	10 - 150
Tetrachloro-m-xylene	69		10 - 133

Lab Sample ID: 460-251362-B-1-I MSD

Matrix: Solid

Analysis Batch: 826586

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 826475

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	8.2	U	162	157		ug/Kg	✱	97	70 - 140	10	30
4,4'-DDE	8.2	U	162	150		ug/Kg	✱	92	71 - 137	11	30
4,4'-DDT	8.2	U	162	159		ug/Kg	✱	98	63 - 131	13	30
Aldrin	8.2	U	162	147		ug/Kg	✱	91	74 - 140	10	30
alpha-BHC	2.4	U	162	149		ug/Kg	✱	92	72 - 142	9	30
beta-BHC	2.4	U	162	148		ug/Kg	✱	92	65 - 137	11	30
delta-BHC	2.4	U	162	158		ug/Kg	✱	98	70 - 143	10	30
Dieldrin	2.4	U	162	154		ug/Kg	✱	95	70 - 135	12	30
Endosulfan I	8.2	U	162	150		ug/Kg	✱	93	68 - 135	12	30
Endosulfan II	8.2	U	162	157		ug/Kg	✱	97	64 - 130	11	30
Endosulfan sulfate	8.2	U	162	138		ug/Kg	✱	85	66 - 143	15	30
Endrin	8.2	U	162	146		ug/Kg	✱	90	68 - 136	8	30
Endrin aldehyde	8.2	U	162	120		ug/Kg	✱	74	68 - 132	9	30
Endrin ketone	8.2	U	162	151		ug/Kg	✱	93	60 - 150	12	30
gamma-BHC (Lindane)	2.4	U	162	156		ug/Kg	✱	96	70 - 134	11	30
Heptachlor	8.2	U	162	154		ug/Kg	✱	95	69 - 134	10	30
Heptachlor epoxide	8.2	U	162	150		ug/Kg	✱	92	70 - 135	11	30
Methoxychlor	8.2	U	162	148		ug/Kg	✱	91	57 - 135	11	30
cis-Chlordane	8.2	U	162	148		ug/Kg	✱	91	70 - 136	12	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	89		10 - 150
Tetrachloro-m-xylene	79		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-826465/1-A

Matrix: Solid

Analysis Batch: 826650

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826465

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1016	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1221	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1221	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1232	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1232	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1242	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1242	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1248	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1248	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1254	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1254	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1260	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1260	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor-1262	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor-1262	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1268	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Aroclor 1268	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/03/22 09:58	02/04/22 09:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	140		37 - 150	02/03/22 09:58	02/04/22 09:32	1
DCB Decachlorobiphenyl	134		37 - 150	02/03/22 09:58	02/04/22 09:32	1
Tetrachloro-m-xylene	102		54 - 150	02/03/22 09:58	02/04/22 09:32	1
Tetrachloro-m-xylene	123		54 - 150	02/03/22 09:58	02/04/22 09:32	1

Lab Sample ID: LCS 460-826465/2-A

Matrix: Solid

Analysis Batch: 826650

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	309		ug/Kg		93	65 - 133
Aroclor 1016	333	388		ug/Kg		117	65 - 133
Aroclor 1260	333	356		ug/Kg		107	71 - 150
Aroclor 1260	333	412		ug/Kg		124	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	114		37 - 150
DCB Decachlorobiphenyl	114		37 - 150
Tetrachloro-m-xylene	77		54 - 150
Tetrachloro-m-xylene	108		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-826465/3-A

Matrix: Solid

Analysis Batch: 826650

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826465

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	283		ug/Kg		85	65 - 133	9	30
Aroclor 1016	333	362		ug/Kg		109	65 - 133	7	30
Aroclor 1260	333	327		ug/Kg		98	71 - 150	8	30
Aroclor 1260	333	380		ug/Kg		114	71 - 150	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	106		37 - 150
DCB Decachlorobiphenyl	105		37 - 150
Tetrachloro-m-xylene	71		54 - 150
Tetrachloro-m-xylene	99		54 - 150

Lab Sample ID: 460-251362-B-1-E MS

Matrix: Solid

Analysis Batch: 826650

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	82	U	406	381		ug/Kg	⊛	94	65 - 133
Aroclor 1016	82	U	406	475		ug/Kg	⊛	117	65 - 133
Aroclor 1260	82	U	406	437		ug/Kg	⊛	108	71 - 150
Aroclor 1260	82	U	406	492		ug/Kg	⊛	121	71 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	101		37 - 150
DCB Decachlorobiphenyl	103		37 - 150
Tetrachloro-m-xylene	68		54 - 150
Tetrachloro-m-xylene	96		54 - 150

Lab Sample ID: 460-251362-B-1-F MSD

Matrix: Solid

Analysis Batch: 826650

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 826465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	82	U	406	378		ug/Kg	⊛	93	65 - 133	1	30
Aroclor 1016	82	U	406	473		ug/Kg	⊛	117	65 - 133	0	30
Aroclor 1260	82	U	406	437		ug/Kg	⊛	108	71 - 150	0	30
Aroclor 1260	82	U	406	491		ug/Kg	⊛	121	71 - 150	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	99		37 - 150
DCB Decachlorobiphenyl	102		37 - 150
Tetrachloro-m-xylene	68		54 - 150
Tetrachloro-m-xylene	96		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-826147/1-A

Matrix: Solid

Analysis Batch: 826205

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/01/22 18:22	02/02/22 07:10	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/01/22 18:22	02/02/22 07:10	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	115		65 - 150				02/01/22 18:22	02/02/22 07:10	1
2,4-Dichlorophenylacetic acid	125		65 - 150				02/01/22 18:22	02/02/22 07:10	1

Lab Sample ID: LCS 460-826147/2-A

Matrix: Solid

Analysis Batch: 826205

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	41.7	44.1		ug/Kg		106	58 - 150
Silvex (2,4,5-TP)	41.7	53.5		ug/Kg		128	58 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	118		65 - 150				
2,4-Dichlorophenylacetic acid	129		65 - 150				

Lab Sample ID: LCSD 460-826147/3-A

Matrix: Solid

Analysis Batch: 826205

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	41.7	44.2		ug/Kg		106	58 - 150	0	30
Silvex (2,4,5-TP)	41.7	53.4		ug/Kg		128	58 - 150	0	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	116		65 - 150						
2,4-Dichlorophenylacetic acid	126		65 - 150						

Method: 537 (Modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-222270/1-B

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 222270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.049	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
8:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.017	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
NEtFOSAA	0.20	U	0.20	0.022	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
NMeFOSAA	0.20	U	0.20	0.031	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorobutanesulfonic acid	0.40	U	0.40	0.36	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorobutanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorodecanesulfonic acid	0.20	U	0.20	0.021	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorodecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorododecanoic acid	0.20	U	0.20	0.023	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluoroheptanesulfonic acid	0.20	U	0.20	0.020	ug/Kg		02/09/22 10:43	02/11/22 00:03	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-222270/1-B

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 222270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorohexanesulfonic acid	0.20	U	0.20	0.019	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorohexanoic acid	0.20	U	0.20	0.019	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorononanoic acid	0.20	U	0.20	0.023	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorooctanesulfonamide	0.20	U	0.20	0.021	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorooctanesulfonic acid	0.20	U	0.20	0.035	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorooctanoic acid	0.20	U	0.20	0.022	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluoropentanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorotetradecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorotridecanoic acid	0.20	U	0.20	0.021	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluoroundecanoic acid	0.20	U	0.20	0.056	ug/Kg		02/09/22 10:43	02/11/22 00:03	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	93		10 - 200	02/09/22 10:43	02/11/22 00:03	1
M2-8:2 FTS	80		15 - 200	02/09/22 10:43	02/11/22 00:03	1
13C2 PFTeDA	92		10 - 169	02/09/22 10:43	02/11/22 00:03	1
13C3 PFBS	96		27 - 179	02/09/22 10:43	02/11/22 00:03	1
13C4 PFBA	99		28 - 153	02/09/22 10:43	02/11/22 00:03	1
13C4 PFHpA	100		10 - 178	02/09/22 10:43	02/11/22 00:03	1
13C5 PFPeA	92		24 - 161	02/09/22 10:43	02/11/22 00:03	1
13C8 PFOA	100		26 - 159	02/09/22 10:43	02/11/22 00:03	1
13C8 PFOS	102		41 - 154	02/09/22 10:43	02/11/22 00:03	1
d3-NMeFOSAA	66		10 - 178	02/09/22 10:43	02/11/22 00:03	1
d5-NEtFOSAA	78		10 - 193	02/09/22 10:43	02/11/22 00:03	1
13C3 PFHxS	101		24 - 171	02/09/22 10:43	02/11/22 00:03	1
13C5 PFHxA	101		10 - 174	02/09/22 10:43	02/11/22 00:03	1
13C6 PFDA	97		26 - 161	02/09/22 10:43	02/11/22 00:03	1
13C7 PFUnA	99		12 - 173	02/09/22 10:43	02/11/22 00:03	1
13C8 FOSA	83		14 - 163	02/09/22 10:43	02/11/22 00:03	1
13C2-PFDoDA	91		11 - 166	02/09/22 10:43	02/11/22 00:03	1
13C9 PFNA	104		26 - 165	02/09/22 10:43	02/11/22 00:03	1

Lab Sample ID: LCS 410-222270/2-B

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 222270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
6:2 Fluorotelomer sulfonic acid	2.96	3.289		ug/Kg		111	59 - 135
8:2 Fluorotelomer sulfonic acid	2.99	3.416		ug/Kg		114	55 - 133
NEtFOSAA	3.13	3.120		ug/Kg		100	57 - 127
NMeFOSAA	3.13	3.142		ug/Kg		101	60 - 134
Perfluorobutanesulfonic acid	2.77	2.618		ug/Kg		95	54 - 130
Perfluorobutanoic acid	3.13	3.345		ug/Kg		107	60 - 128
Perfluorodecanesulfonic acid	3.01	2.791		ug/Kg		93	57 - 132
Perfluorodecanoic acid	3.13	2.868		ug/Kg		92	56 - 133
Perfluorododecanoic acid	3.13	3.158		ug/Kg		101	60 - 135
Perfluoroheptanesulfonic acid	2.98	2.774		ug/Kg		93	59 - 132
Perfluoroheptanoic acid	3.13	3.169		ug/Kg		101	59 - 137
Perfluorohexanesulfonic acid	2.85	2.742		ug/Kg		96	59 - 129

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-222270/2-B

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 222270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	3.13	3.259		ug/Kg		104	59 - 132
Perfluorononanoic acid	3.13	3.230		ug/Kg		103	61 - 134
Perfluorooctanesulfonamide	3.13	3.502		ug/Kg		112	47 - 149
Perfluorooctanesulfonic acid	2.89	2.908		ug/Kg		101	61 - 126
Perfluorooctanoic acid	3.13	3.104		ug/Kg		99	59 - 131
Perfluoropentanoic acid	3.13	3.591		ug/Kg		115	58 - 134
Perfluorotetradecanoic acid	3.13	3.085		ug/Kg		99	62 - 134
Perfluorotridecanoic acid	3.13	3.293		ug/Kg		105	53 - 143
Perfluoroundecanoic acid	3.13	3.012		ug/Kg		96	60 - 134

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	84		10 - 200
M2-8:2 FTS	79		15 - 200
13C2 PFTeDA	84		10 - 169
13C3 PFBS	93		27 - 179
13C4 PFBA	88		28 - 153
13C4 PFHpA	87		10 - 178
13C5 PFPeA	84		24 - 161
13C8 PFOA	87		26 - 159
13C8 PFOS	90		41 - 154
d3-NMeFOSAA	60		10 - 178
d5-NEtFOSAA	65		10 - 193
13C3 PFHxS	92		24 - 171
13C5 PFHxA	86		10 - 174
13C6 PFDA	91		26 - 161
13C7 PFUnA	92		12 - 173
13C8 FOSA	73		14 - 163
13C2-PFDoDA	83		11 - 166
13C9 PFNA	94		26 - 165

Lab Sample ID: 460-251533-A-24-E MS

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 222270

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
6:2 Fluorotelomer sulfonic acid	0.23	U	3.47	3.806		ug/Kg	✱	110	59 - 135
8:2 Fluorotelomer sulfonic acid	0.23	U	3.50	4.198		ug/Kg	✱	120	55 - 133
NEtFOSAA	0.23	U	3.66	3.751		ug/Kg	✱	103	57 - 127
NMeFOSAA	0.23	U	3.66	3.736		ug/Kg	✱	102	60 - 134
Perfluorobutanesulfonic acid	0.47	U	3.24	3.059		ug/Kg	✱	94	54 - 130
Perfluorobutanoic acid	0.039	J	3.66	3.938		ug/Kg	✱	107	60 - 128
Perfluorodecanesulfonic acid	0.23	U	3.53	3.328		ug/Kg	✱	94	57 - 132
Perfluorodecanoic acid	0.080	J	3.66	3.499		ug/Kg	✱	93	56 - 133
Perfluorododecanoic acid	0.23	U	3.66	3.310		ug/Kg	✱	90	60 - 135
Perfluoroheptanesulfonic acid	0.23	U	3.48	3.240		ug/Kg	✱	93	59 - 132
Perfluoroheptanoic acid	0.051	J	3.66	3.765		ug/Kg	✱	102	59 - 137
Perfluorohexanesulfonic acid	0.23	U	3.34	3.220		ug/Kg	✱	96	59 - 129
Perfluorohexanoic acid	0.042	J	3.66	3.737		ug/Kg	✱	101	59 - 132
Perfluorononanoic acid	0.25		3.66	3.841		ug/Kg	✱	98	61 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-251533-A-24-E MS

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 222270

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonamide	0.23	U	3.66	3.846		ug/Kg	✱	105	47 - 149
Perfluorooctanesulfonic acid	0.25		3.39	3.438		ug/Kg	✱	94	61 - 126
Perfluorooctanoic acid	0.18	J	3.66	3.667		ug/Kg	✱	95	59 - 131
Perfluoropentanoic acid	0.23	U	3.66	4.019		ug/Kg	✱	110	58 - 134
Perfluorotetradecanoic acid	0.23	U	3.66	3.446		ug/Kg	✱	94	62 - 134
Perfluorotridecanoic acid	0.043	J	3.66	3.518		ug/Kg	✱	95	53 - 143
Perfluoroundecanoic acid	0.31		3.66	3.966		ug/Kg	✱	100	60 - 134

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
M2-6:2 FTS	104		10 - 200
M2-8:2 FTS	103		15 - 200
13C2 PFTeDA	100		10 - 169
13C3 PFBS	100		27 - 179
13C4 PFBA	76		28 - 153
13C4 PFHpA	78		10 - 178
13C5 PFPeA	73		24 - 161
13C8 PFOA	80		26 - 159
13C8 PFOS	98		41 - 154
d3-NMeFOSAA	49		10 - 178
d5-NEtFOSAA	66		10 - 193
13C3 PFHxS	99		24 - 171
13C5 PFHxA	76		10 - 174
13C6 PFDA	90		26 - 161
13C7 PFUnA	87		12 - 173
13C8 FOSA	62		14 - 163
13C2-PFDoDA	105		11 - 166
13C9 PFNA	85		26 - 165

Lab Sample ID: 460-251533-A-24-F MSD

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 222270

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
6:2 Fluorotelomer sulfonic acid	0.23	U	3.46	3.850		ug/Kg	✱	111	59 - 135	1	30
8:2 Fluorotelomer sulfonic acid	0.23	U	3.50	4.006		ug/Kg	✱	114	55 - 133	5	30
NEtFOSAA	0.23	U	3.65	3.402		ug/Kg	✱	93	57 - 127	10	30
NMeFOSAA	0.23	U	3.65	3.748		ug/Kg	✱	103	60 - 134	0	30
Perfluorobutanesulfonic acid	0.47	U	3.23	3.256		ug/Kg	✱	101	54 - 130	6	30
Perfluorobutanoic acid	0.039	J	3.65	3.951		ug/Kg	✱	107	60 - 128	0	30
Perfluorodecanesulfonic acid	0.23	U	3.52	3.553		ug/Kg	✱	101	57 - 132	7	30
Perfluorodecanoic acid	0.080	J	3.65	3.434		ug/Kg	✱	92	56 - 133	2	30
Perfluorododecanoic acid	0.23	U	3.65	3.399		ug/Kg	✱	93	60 - 135	3	30
Perfluoroheptanesulfonic acid	0.23	U	3.48	3.377		ug/Kg	✱	97	59 - 132	4	30
Perfluoroheptanoic acid	0.051	J	3.65	3.491		ug/Kg	✱	94	59 - 137	8	30
Perfluorohexanesulfonic acid	0.23	U	3.33	3.136		ug/Kg	✱	94	59 - 129	3	30
Perfluorohexanoic acid	0.042	J	3.65	3.760		ug/Kg	✱	102	59 - 132	1	30
Perfluorononanoic acid	0.25		3.65	3.982		ug/Kg	✱	102	61 - 134	4	30
Perfluorooctanesulfonamide	0.23	U	3.65	3.730		ug/Kg	✱	102	47 - 149	3	30
Perfluorooctanesulfonic acid	0.25		3.38	3.424		ug/Kg	✱	94	61 - 126	0	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-251533-A-24-F MSD

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 222270

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid	0.18	J	3.65	3.975		ug/Kg	✱	104	59 - 131	8	30
Perfluoropentanoic acid	0.23	U	3.65	4.148		ug/Kg	✱	113	58 - 134	3	30
Perfluorotetradecanoic acid	0.23	U	3.65	3.614		ug/Kg	✱	99	62 - 134	5	30
Perfluorotridecanoic acid	0.043	J	3.65	3.895		ug/Kg	✱	105	53 - 143	10	30
Perfluoroundecanoic acid	0.31		3.65	3.876		ug/Kg	✱	98	60 - 134	2	30
MSD MSD											
Isotope Dilution	%Recovery	Qualifier	Limits								
M2-6:2 FTS	94		10 - 200								
M2-8:2 FTS	94		15 - 200								
13C2 PFTeDA	92		10 - 169								
13C3 PFBS	93		27 - 179								
13C4 PFBA	70		28 - 153								
13C4 PFHpA	77		10 - 178								
13C5 PFPeA	69		24 - 161								
13C8 PFOA	75		26 - 159								
13C8 PFOS	93		41 - 154								
d3-NMeFOSAA	46		10 - 178								
d5-NEtFOSAA	62		10 - 193								
13C3 PFHxS	94		24 - 171								
13C5 PFHxA	72		10 - 174								
13C6 PFDA	86		26 - 161								
13C7 PFUnA	86		12 - 173								
13C8 FOSA	61		14 - 163								
13C2-PFDoDA	94		11 - 166								
13C9 PFNA	81		26 - 165								

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-826872/1-A

Matrix: Solid

Analysis Batch: 826991

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826872

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Barium	2.0	U	2.0	0.15	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Chromium	2.0	U	2.0	0.27	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Copper	2.0	U	2.0	0.37	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Manganese	4.0	U	4.0	0.40	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Nickel	2.0	U	2.0	0.47	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Lead	0.60	U	0.60	0.20	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Selenium	1.3	U	1.3	0.13	mg/Kg		02/06/22 06:59	02/07/22 09:33	1
Zinc	8.0	U	8.0	3.1	mg/Kg		02/06/22 06:59	02/07/22 09:33	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-826872/2-A ^5

Matrix: Solid

Analysis Batch: 826991

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826872

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	20.53		mg/Kg		61.1	48.2 - 73.5
Arsenic	140	143.5		mg/Kg		102.5	82.9 - 117.9
Barium	202	210.8		mg/Kg		104.4	81.2 - 118.3
Beryllium	42.6	42.34		mg/Kg		99.4	81.0 - 119.0
Cadmium	97.9	99.57		mg/Kg		101.7	80.0 - 119.5
Chromium	60.4	62.28		mg/Kg		103.1	80.3 - 119.7
Copper	122	123.9		mg/Kg		101.6	82.8 - 117.2
Manganese	457	483.6		mg/Kg		105.8	79.6 - 120.6
Nickel	151	153.6		mg/Kg		101.7	79.5 - 121.2
Lead	56.7	59.81		mg/Kg		105.5	82.9 - 116.9
Selenium	35.5	38.34		mg/Kg		108.0	77.5 - 122.3
Zinc	186	182.2		mg/Kg		98.0	79.0 - 121.0

Lab Sample ID: 460-251620-E-2-B MS

Matrix: Solid

Analysis Batch: 826991

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826872

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.37	J	5.89	5.95		mg/Kg	⊛	95	75 - 125
Arsenic	9.6		11.8	20.32		mg/Kg	⊛	91	75 - 125
Barium	7.9		11.8	19.63		mg/Kg	⊛	99	75 - 125
Beryllium	0.16	J	5.89	5.77		mg/Kg	⊛	95	75 - 125
Cadmium	1.2	U	5.89	5.57		mg/Kg	⊛	95	75 - 125
Chromium	6.0		11.8	18.94		mg/Kg	⊛	110	75 - 125
Copper	34.4		11.8	42.37	N	mg/Kg	⊛	68	75 - 125
Manganese	9.8		58.9	67.56		mg/Kg	⊛	98	75 - 125
Nickel	1.6	J	11.8	12.98		mg/Kg	⊛	96	75 - 125
Lead	17.6		5.89	19.28	N	mg/Kg	⊛	29	75 - 125
Selenium	0.60	J	11.8	11.67		mg/Kg	⊛	94	75 - 125
Zinc	9.7		58.9	65.25		mg/Kg	⊛	94	75 - 125

Lab Sample ID: 460-251620-F-2-D DU

Matrix: Solid

Analysis Batch: 826991

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 826872

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	0.37	J	0.373	J	mg/Kg	⊛	0.4	20
Arsenic	9.6		9.51		mg/Kg	⊛	0.5	20
Barium	7.9		7.81		mg/Kg	⊛	1	20
Beryllium	0.16	J	0.147	J	mg/Kg	⊛	9	20
Cadmium	1.2	U	1.2	U	mg/Kg	⊛	NC	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-251620-F-2-D DU
Matrix: Solid
Analysis Batch: 826991

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 826872

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chromium	6.0		5.82		mg/Kg	✱	3	20
Copper	34.4		33.25		mg/Kg	✱	3	20
Manganese	9.8		9.86		mg/Kg	✱	0.8	20
Nickel	1.6	J	1.57	J	mg/Kg	✱	3	20
Lead	17.6		16.29		mg/Kg	✱	8	20
Selenium	0.60	J	0.569	J	mg/Kg	✱	6	20
Zinc	9.7		9.67		mg/Kg	✱	0.8	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-826183/10-A
Matrix: Solid
Analysis Batch: 826260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 826183

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		02/02/22 03:12	02/02/22 07:31	1

Lab Sample ID: LCSSRM 460-826183/11-A ^40
Matrix: Solid
Analysis Batch: 826260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 826183

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	16.56		mg/Kg		100.4	74.5 - 124.8

Lab Sample ID: 460-251306-F-5-C MS
Matrix: Solid
Analysis Batch: 826260

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 826183

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.020	U	0.0959	0.0982		mg/Kg	✱	102	80 - 120

Lab Sample ID: 460-251306-F-5-B DU
Matrix: Solid
Analysis Batch: 826260

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 826183

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.020	U	0.020	U	mg/Kg	✱	NC	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-826803/1-A
Matrix: Solid
Analysis Batch: 826882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 826803

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		02/05/22 08:52	02/06/22 15:24	1

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS1 460-826803/3-A
Matrix: Solid
Analysis Batch: 826882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 826803

Analyte	Spike Added	LCS1 Result	LCS1 Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	638.8		mg/Kg		90	80 - 120

Lab Sample ID: LCSSRM 460-826803/2-A
Matrix: Solid
Analysis Batch: 826882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 826803

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	15.9	13.73		mg/Kg		86.4	84.1 - 114.4

Lab Sample ID: LCSSRM 460-826803/4-A
Matrix: Solid
Analysis Batch: 826882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 826803

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	114.5		mg/Kg		87.4	61.3 - 138.2

Lab Sample ID: 460-251672-E-2-F MSS
Matrix: Solid
Analysis Batch: 826882

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 826803

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.2	U	43.3	40.74		mg/Kg	✱	94	75 - 125

Lab Sample ID: 460-251672-E-2-G MSI
Matrix: Solid
Analysis Batch: 826882

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 826803

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.2	U	767	728.1		mg/Kg	✱	95	75 - 125

Lab Sample ID: 460-251672-E-2-E DU
Matrix: Solid
Analysis Batch: 826882

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 826803

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.2	U	2.2	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-826480/2-A
Matrix: Solid
Analysis Batch: 826506

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 826480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		02/03/22 11:53	02/03/22 13:59	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCSSRM 460-826480/3-A ^20

Matrix: Solid

Analysis Batch: 826506

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826480

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	115	56.64		mg/Kg		49.3	25.6 - 125.2

Lab Sample ID: MRL 460-826480/1-A

Matrix: Solid

Analysis Batch: 826506

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826480

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0125		mg/L		125	50 - 150

Lab Sample ID: 460-251672-E-2-B MS

Matrix: Solid

Analysis Batch: 826506

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826480

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.26	U	5.20	5.90	N	mg/Kg	✱	114	11 - 108

Lab Sample ID: 460-251672-E-2-C MSD

Matrix: Solid

Analysis Batch: 826506

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 826480

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.26	U	5.20	6.19	N	mg/Kg	✱	119	11 - 108	5	40

Method: Moisture - Percent Moisture

Lab Sample ID: 460-251706-G-1 DU

Matrix: Solid

Analysis Batch: 826379

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	16.8		16.3		%		3	20
Percent Solids	83.2		83.7		%		0.7	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

GC/MS VOA

Prep Batch: 826132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	5035	

Analysis Batch: 826200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	8260D	826132
MB 460-826200/11	Method Blank	Total/NA	Solid	8260D	
LCS 460-826200/7	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-826200/8	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 826367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	3546	
MB 460-826367/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-826367/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-826367/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-251620-E-2-A MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
460-251620-F-2-A MS	Matrix Spike	Total/NA	Solid	3546	

Analysis Batch: 826414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	8270E	826367
MB 460-826367/1-A	Method Blank	Total/NA	Solid	8270E	826367
LCS 460-826367/2-A	Lab Control Sample	Total/NA	Solid	8270E	826367
LCSD 460-826367/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	826367
460-251620-E-2-A MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	826367
460-251620-F-2-A MS	Matrix Spike	Total/NA	Solid	8270E	826367

GC Semi VOA

Prep Batch: 826147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	8151A	
MB 460-826147/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-826147/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-826147/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 826205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	8151A	826147
MB 460-826147/1-A	Method Blank	Total/NA	Solid	8151A	826147
LCS 460-826147/2-A	Lab Control Sample	Total/NA	Solid	8151A	826147
LCSD 460-826147/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	826147

Prep Batch: 826465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	3546	
MB 460-826465/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-826465/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-826465/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-251362-B-1-E MS	Matrix Spike	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

GC Semi VOA (Continued)

Prep Batch: 826465 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251362-B-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 826475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	3546	
MB 460-826475/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-826475/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-826475/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-251362-B-1-H MS	Matrix Spike	Total/NA	Solid	3546	
460-251362-B-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 826586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	8081B	826475
MB 460-826475/1-A	Method Blank	Total/NA	Solid	8081B	826475
LCS 460-826475/2-A	Lab Control Sample	Total/NA	Solid	8081B	826475
LCSD 460-826475/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	826475
460-251362-B-1-H MS	Matrix Spike	Total/NA	Solid	8081B	826475
460-251362-B-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8081B	826475

Analysis Batch: 826650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	8082A	826465
MB 460-826465/1-A	Method Blank	Total/NA	Solid	8082A	826465
LCS 460-826465/2-A	Lab Control Sample	Total/NA	Solid	8082A	826465
LCSD 460-826465/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	826465
460-251362-B-1-E MS	Matrix Spike	Total/NA	Solid	8082A	826465
460-251362-B-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	826465

LCMS

Prep Batch: 222270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	SHAKE	
MB 410-222270/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-222270/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-251533-A-24-E MS	Matrix Spike	Total/NA	Solid	SHAKE	
460-251533-A-24-F MSD	Matrix Spike Duplicate	Total/NA	Solid	SHAKE	

Cleanup Batch: 222511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	Extract Aliquot	222270
MB 410-222270/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	222270
LCS 410-222270/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	222270
460-251533-A-24-E MS	Matrix Spike	Total/NA	Solid	Extract Aliquot	222270
460-251533-A-24-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Extract Aliquot	222270

Analysis Batch: 222628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	537 (Modified)	222511
MB 410-222270/1-B	Method Blank	Total/NA	Solid	537 (Modified)	222511

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

LCMS (Continued)

Analysis Batch: 222628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-222270/2-B	Lab Control Sample	Total/NA	Solid	537 (Modified)	222511
460-251533-A-24-E MS	Matrix Spike	Total/NA	Solid	537 (Modified)	222511
460-251533-A-24-F MSD	Matrix Spike Duplicate	Total/NA	Solid	537 (Modified)	222511

Metals

Prep Batch: 826183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	7471B	
MB 460-826183/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-826183/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	
460-251306-F-5-C MS	Matrix Spike	Total/NA	Solid	7471B	
460-251306-F-5-B DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 826260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	7471B	826183
MB 460-826183/10-A	Method Blank	Total/NA	Solid	7471B	826183
LCSSRM 460-826183/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	826183
460-251306-F-5-C MS	Matrix Spike	Total/NA	Solid	7471B	826183
460-251306-F-5-B DU	Duplicate	Total/NA	Solid	7471B	826183

Prep Batch: 826872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	3050B	
MB 460-826872/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-826872/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-251620-E-2-B MS	Matrix Spike	Total/NA	Solid	3050B	
460-251620-F-2-D DU	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 826991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	6020B	826872
MB 460-826872/1-A	Method Blank	Total/NA	Solid	6020B	826872
LCSSRM 460-826872/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	826872
460-251620-E-2-B MS	Matrix Spike	Total/NA	Solid	6020B	826872
460-251620-F-2-D DU	Duplicate	Total/NA	Solid	6020B	826872

General Chemistry

Analysis Batch: 826379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	Moisture	
460-251620-E-2 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-251620-E-2 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-251706-G-1 DU	Duplicate	Total/NA	Solid	Moisture	

Prep Batch: 826480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	9012B	
MB 460-826480/2-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-826480/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

General Chemistry (Continued)

Prep Batch: 826480 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-826480/1-A	Lab Control Sample	Total/NA	Solid	9012B	
460-251672-E-2-B MS	Matrix Spike	Total/NA	Solid	9012B	
460-251672-E-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	

Analysis Batch: 826506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	9012B	826480
MB 460-826480/2-A	Method Blank	Total/NA	Solid	9012B	826480
LCSSRM 460-826480/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	826480
MRL 460-826480/1-A	Lab Control Sample	Total/NA	Solid	9012B	826480
460-251672-E-2-B MS	Matrix Spike	Total/NA	Solid	9012B	826480
460-251672-E-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	826480

Prep Batch: 826803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	3060A	
MB 460-826803/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-826803/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-826803/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-826803/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-251672-E-2-F MSS	Matrix Spike	Total/NA	Solid	3060A	
460-251672-E-2-G MSI	Matrix Spike	Total/NA	Solid	3060A	
460-251672-E-2-E DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 826882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	7196A	826803
MB 460-826803/1-A	Method Blank	Total/NA	Solid	7196A	826803
LCSI 460-826803/3-A	Lab Control Sample	Total/NA	Solid	7196A	826803
LCSSRM 460-826803/2-A	Lab Control Sample	Total/NA	Solid	7196A	826803
LCSSRM 460-826803/4-A	Lab Control Sample	Total/NA	Solid	7196A	826803
460-251672-E-2-F MSS	Matrix Spike	Total/NA	Solid	7196A	826803
460-251672-E-2-G MSI	Matrix Spike	Total/NA	Solid	7196A	826803
460-251672-E-2-E DU	Duplicate	Total/NA	Solid	7196A	826803

Analysis Batch: 826929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251616-1	129_PE-10	Total/NA	Solid	7196A	

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Client Sample ID: 129_PE-10

Lab Sample ID: 460-251616-1

Date Collected: 01/31/22 10:15

Matrix: Solid

Date Received: 01/31/22 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	826929	02/06/22 20:15	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	826379	02/02/22 02:57	MIE	TAL EDI

Client Sample ID: 129_PE-10

Lab Sample ID: 460-251616-1

Date Collected: 01/31/22 10:15

Matrix: Solid

Date Received: 01/31/22 17:30

Percent Solids: 71.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			826132	02/01/22 16:51	JJC	TAL EDI
Total/NA	Analysis	8260D		1	826200	02/02/22 15:22	EMM	TAL EDI
Total/NA	Prep	3546			826367	02/02/22 19:25	AFR	TAL EDI
Total/NA	Analysis	8270E		1	826414	02/03/22 16:35	MDJ	TAL EDI
Total/NA	Prep	3546			826475	02/03/22 10:19	OTS	TAL EDI
Total/NA	Analysis	8081B		1	826586	02/04/22 08:04	FAM	TAL EDI
Total/NA	Prep	3546			826465	02/03/22 10:03	OTS	TAL EDI
Total/NA	Analysis	8082A		1	826650	02/04/22 11:44	JHP	TAL EDI
Total/NA	Prep	8151A			826147	02/01/22 18:22	AFR	TAL EDI
Total/NA	Analysis	8151A		1	826205	02/02/22 13:03	JHP	TAL EDI
Total/NA	Prep	SHAKE			222270	02/09/22 10:43	D5VP	ELLE
Total/NA	Cleanup	Extract Aliquot			222511	02/09/22 20:09	D5VP	ELLE
Total/NA	Analysis	537 (Modified)		1	222628	02/11/22 02:05	I5JH	ELLE
Total/NA	Prep	3050B			826872	02/06/22 06:59	SXC	TAL EDI
Total/NA	Analysis	6020B		1	826991	02/07/22 17:16	MDC	TAL EDI
Total/NA	Prep	7471B			826183	02/02/22 03:12	TJS	TAL EDI
Total/NA	Analysis	7471B		1	826260	02/02/22 08:16	TJS	TAL EDI
Total/NA	Prep	3060A			826803	02/05/22 08:52	VBG	TAL EDI
Total/NA	Analysis	7196A		1	826882	02/06/22 15:28	OXG	TAL EDI
Total/NA	Prep	9012B			826480	02/03/22 11:53	IAA	TAL EDI
Total/NA	Analysis	9012B		1	826506	02/03/22 14:01	RAK	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	02-07-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22 *
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22 *
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	02-17-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-22 *
Oklahoma	NELAP	R-205	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-22 *
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	02-28-22
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 (Modified)	Fluorinated Alkyl Substances	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251616-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-251616-1	129_PE-10	Solid	01/31/22 10:15	01/31/22 17:30

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Grieco, Patricia		Carrier Tracking No(s):		COC No: 460-63992.1		
Client Contact: Shipping/Receiving		Phone:		E-Mail: Patricia.Grieco@Eurofinset.com		State of Origin: New York		Page: Page 1 of 1		
Company: Eurofins Lancaster Laboratories Env, LLC				Accreditations Required (See note): NELAP - New York				Job #: 460-251616-1		
Address: 2425 New Holland Pike, City: Lancaster State, Zip: PA, 17601 Phone: 717-656-2300(Tel) Email:		Due Date Requested: 2/4/2022 TAT Requested (days): PO #: WO #:		Analysis Requested				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:		
Project Name: 2455 Third Avenue , Bronx, NY Site:		Project #: 46035981 SSOW#:								
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=Air)	Field Filtered Sample (Yes or No)	Perfor. Method (Yes or No)	PFC IDA/Shake_Bath_14D NY 21 PFAS	Total Number of Containers	Special Instructions/Note:
129_PE-10 (460-251616-1)		1/31/22	10:15 Eastern		Solid			X	1	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.										
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed						☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 4		Special Instructions/QC Requirements:				
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:			
Relinquished by:		Date/Time: 2/1/22 1605		Company: EETAELI		Received by:		Date/Time: 2/1/22 1605		Company: EEL
Relinquished by:		Date/Time: 2/1/22 1857		Company: Eln		Received by:		Date/Time:		Company:
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time: 2/1/22 1857		Company: EUNET
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks: 0.9-1.6				

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-251616-1

Login Number: 251616

List Source: Eurofins Edison

List Number: 1

Creator: Narinkhum, Nudjarin 1

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-251616-1

Login Number: 251616

List Number: 2

Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 02/01/22 07:57 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

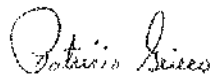
Laboratory Job ID: 460-251737-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:
2/18/2022 10:41:45 AM

Patricia Grieco, Senior Project Manager
(732)593-2507
Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



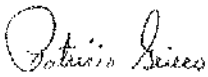
Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
2/18/2022 10:41:45 AM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	10
Client Sample Results	11
Surrogate Summary	16
Isotope Dilution Summary	18
QC Sample Results	19
QC Association Summary	45
Lab Chronicle	49
Certification Summary	50
Method Summary	52
Sample Summary	53
Chain of Custody	54
Receipt Checklists	57



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Job ID: 460-251737-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-251737-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 02/02/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.1 C.

Per laboratory policy the TB sample date/time was added to reflect the latest sample date/time of the sampling event.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 131_PE-17 (460-251737-1) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 02/04/2022 and analyzed on 02/07/2022.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 132_TB-11 (460-251737-2) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 02/04/2022.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 131_PE-17 (460-251737-1) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared and analyzed on 02/04/2022.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Job ID: 460-251737-1 (Continued)

Laboratory: Eurofins Edison (Continued)

The continuing calibration verification (CCV) analyzed in batch 460-826723 was outside the method criteria for the following analyte(s): Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-826847 was outside the method criteria for the following analyte(s): 2,4-Dinitrophenol, 2,2'-oxybis[1-chloropropane], Benzaldehyde, Dibenz(a,h)anthracene and Hexachlorocyclopentadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

1,4-Dioxane failed the recovery criteria high for LCS 460-826666/2-A. 1,4-Dioxane failed the recovery criteria high for LCSD 460-826666/3-A. Refer to the QC report for details.

Naphthalene failed the recovery criteria high for the MS of sample 460-251303-1 in batch 460-826847.

Pentachlorophenol failed the recovery criteria low for the MSD of sample 460-251303-1 in batch 460-826847. Naphthalene failed the recovery criteria high.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Sample 131_PE-17 (460-251737-1) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 02/05/2022 and analyzed on 02/06/2022.

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Sample 131_PE-17 (460-251737-1) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 02/07/2022 and analyzed on 02/08/2022.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Sample 131_PE-17 (460-251737-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 02/04/2022 and analyzed on 02/06/2022.

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Sample 131_PE-17 (460-251737-1) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 02/09/2022 and analyzed on 02/11/2022.

No difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Job ID: 460-251737-1 (Continued)

Laboratory: Eurofins Edison (Continued)

TOTAL METALS (ICP/MS)

Sample 131_PE-17 (460-251737-1) was analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 02/12/2022 and analyzed on 02/14/2022.

Barium failed the recovery criteria high for the MS of sample 460-250873-32 in batch 460-828139.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample 131_PE-17 (460-251737-1) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 02/08/2022 and analyzed on 02/09/2022.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample 131_PE-17 (460-251737-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 02/04/2022.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Sample 131_PE-17 (460-251737-1) was analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 02/14/2022.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Sample 131_PE-17 (460-251737-1) was analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 02/06/2022.

Cyanide, Total exceeded the RPD limit for the MSD of sample 460-251739-6 in batch 460-826925.

Cyanide, Total exceeded the RPD limit for the MSD of sample 460-251739-6 in batch 460-826925.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Sample 131_PE-17 (460-251737-1) was analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 02/04/2022.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Job ID: 460-251737-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Client Sample ID: 131_PE-17

Lab Sample ID: 460-251737-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
3 & 4 Methylphenol	32	J	400	25	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	47	J	400	6.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	16	J	400	4.0	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	34	J	400	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	31	J	400	5.6	ug/Kg	1	✱	8270E	Total/NA
Fluorene	37	J	400	5.4	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	360	J	400	7.0	ug/Kg	1	✱	8270E	Total/NA
Anthracene	83	J	400	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	560		400	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	590		400	9.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	330		40	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	330	J	400	6.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	390		40	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	150		40	7.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	270		40	11	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	280		40	16	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	29	J	40	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	180	J	400	12	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	29		8.1	1.4	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	28		8.1	1.5	ug/Kg	1	✱	8081B	Total/NA
Perfluorobutanoic acid	0.052	J	0.24	0.029	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorodecanoic acid	0.043	J	0.24	0.029	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorohexanoic acid	0.037	J	0.24	0.023	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorononanoic acid	0.033	J	0.24	0.028	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorooctanesulfonic acid	0.82		0.24	0.042	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorooctanoic acid	0.088	J	0.24	0.026	ug/Kg	1	✱	537 (Modified)	Total/NA
Silver	0.10	J	1.2	0.10	mg/Kg	1	✱	6020B	Total/NA
Arsenic	4.1		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	116		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.39	J	0.47	0.067	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.37	J	1.2	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.1		2.3	0.31	mg/Kg	1	✱	6020B	Total/NA
Copper	41.4		2.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Manganese	263		4.7	0.47	mg/Kg	1	✱	6020B	Total/NA
Nickel	23.9		2.3	0.55	mg/Kg	1	✱	6020B	Total/NA
Lead	124		0.70	0.23	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.30	J	1.5	0.15	mg/Kg	1	✱	6020B	Total/NA
Zinc	221		9.4	3.6	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.78		0.019	0.0090	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.1		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cr (VI)	1.0	J	2.4	1.0	mg/Kg	1	✱	7196A	Total/NA

Client Sample ID: 132_TB-11

Lab Sample ID: 460-251737-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Client Sample ID: 131_PE-17

Lab Sample ID: 460-251737-1

Date Collected: 02/02/22 08:30

Matrix: Solid

Date Received: 02/02/22 18:00

Percent Solids: 83.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.40	U	0.40	0.094	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,1-Dichloroethane	0.40	U	0.40	0.083	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,1-Dichloroethene	0.40	U	0.40	0.091	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,2,4-Trimethylbenzene	0.40	U	0.40	0.10	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,2-Dichlorobenzene	0.40	U	0.40	0.15	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,2-Dichloroethane	0.40	U	0.40	0.12	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,3,5-Trimethylbenzene	0.40	U	0.40	0.13	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,3-Dichlorobenzene	0.40	U	0.40	0.15	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,4-Dichlorobenzene	0.40	U	0.40	0.091	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
1,4-Dioxane	40	U	40	3.7	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
2-Butanone (MEK)	2.0	U	2.0	0.15	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Acetone	2.4	U	2.4	2.3	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Benzene	0.40	U	0.40	0.10	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Carbon tetrachloride	0.40	U	0.40	0.16	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Chlorobenzene	0.40	U	0.40	0.072	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Chloroform	0.40	U	0.40	0.39	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
cis-1,2-Dichloroethene	0.40	U	0.40	0.14	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Ethylbenzene	0.40	U	0.40	0.081	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Methyl tert-butyl ether	0.40	U	0.40	0.21	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Methylene Chloride	0.81	U	0.81	0.46	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
n-Butylbenzene	0.40	U	0.40	0.12	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
N-Propylbenzene	0.40	U	0.40	0.071	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
sec-Butylbenzene	0.40	U	0.40	0.12	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
tert-Butylbenzene	0.40	U	0.40	0.11	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Tetrachloroethene	0.40	U	0.40	0.12	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Toluene	0.40	U	0.40	0.095	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
trans-1,2-Dichloroethene	0.40	U	0.40	0.10	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Trichloroethene	0.40	U	0.40	0.13	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Vinyl chloride	0.40	U	0.40	0.22	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1
Xylenes, Total	0.81	U	0.81	0.26	ug/Kg	☆	02/04/22 16:07	02/07/22 20:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 145	02/04/22 16:07	02/07/22 20:57	1
4-Bromofluorobenzene	91		70 - 139	02/04/22 16:07	02/07/22 20:57	1
Dibromofluoromethane (Surr)	105		48 - 150	02/04/22 16:07	02/07/22 20:57	1
Toluene-d8 (Surr)	91		80 - 120	02/04/22 16:07	02/07/22 20:57	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
2-Methylphenol	400	U	400	15	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
3 & 4 Methylphenol	32	J	400	25	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
Pentachlorophenol	320	U	320	82	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
Naphthalene	47	J	400	6.9	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
Acenaphthylene	16	J	400	4.0	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
Acenaphthene	34	J	400	11	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
Dibenzofuran	31	J	400	5.6	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
Fluorene	37	J	400	5.4	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
Hexachlorobenzene	40	U	40	19	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1
Phenanthrene	360	J	400	7.0	ug/Kg	☆	02/04/22 10:21	02/04/22 22:25	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Client Sample ID: 131_PE-17

Lab Sample ID: 460-251737-1

Date Collected: 02/02/22 08:30

Matrix: Solid

Date Received: 02/02/22 18:00

Percent Solids: 83.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	83	J	400	12	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Fluoranthene	560		400	14	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Pyrene	590		400	9.9	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Benzo[a]anthracene	330		40	14	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Chrysene	330	J	400	6.7	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Benzo[b]fluoranthene	390		40	10	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Benzo[k]fluoranthene	150		40	7.8	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Benzo[a]pyrene	270		40	11	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Indeno[1,2,3-cd]pyrene	280		40	16	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Dibenz(a,h)anthracene	29	J	40	17	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
Benzo[g,h,i]perylene	180	J	400	12	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1
1,4-Dioxane	40	U *	40	35	ug/Kg	✱	02/04/22 10:21	02/04/22 22:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	72		11 - 104	02/04/22 10:21	02/04/22 22:25	1
Phenol-d5 (Surr)	75		15 - 100	02/04/22 10:21	02/04/22 22:25	1
Terphenyl-d14 (Surr)	85		12 - 126	02/04/22 10:21	02/04/22 22:25	1
2,4,6-Tribromophenol (Surr)	58		10 - 123	02/04/22 10:21	02/04/22 22:25	1
2-Fluorophenol (Surr)	77		10 - 105	02/04/22 10:21	02/04/22 22:25	1
2-Fluorobiphenyl	75		14 - 103	02/04/22 10:21	02/04/22 22:25	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	29		8.1	1.4	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
4,4'-DDE	8.1	U	8.1	0.95	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
4,4'-DDT	28		8.1	1.5	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
beta-BHC	2.4	U	2.4	0.90	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Chlordane (technical)	81	U	81	20	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Endosulfan II	8.1	U	8.1	2.1	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Endrin	8.1	U	8.1	1.2	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Heptachlor	8.1	U	8.1	0.95	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Methoxychlor	8.1	U	8.1	1.8	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
Toxaphene	81	U	81	29	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	✱	02/05/22 19:04	02/06/22 19:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		10 - 150	02/05/22 19:04	02/06/22 19:38	1
DCB Decachlorobiphenyl	96		10 - 150	02/05/22 19:04	02/06/22 19:38	1
Tetrachloro-m-xylene	64		10 - 133	02/05/22 19:04	02/06/22 19:38	1
Tetrachloro-m-xylene	63		10 - 133	02/05/22 19:04	02/06/22 19:38	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Client Sample ID: 131_PE-17

Lab Sample ID: 460-251737-1

Date Collected: 02/02/22 08:30

Matrix: Solid

Date Received: 02/02/22 18:00

Percent Solids: 83.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Aroclor 1221	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Aroclor 1232	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Aroclor 1242	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Aroclor 1248	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Aroclor 1254	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Aroclor 1260	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Aroclor-1262	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Aroclor 1268	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1
Polychlorinated biphenyls, Total	81	U	81	21	ug/Kg	☆	02/07/22 23:58	02/08/22 09:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	134		37 - 150	02/07/22 23:58	02/08/22 09:41	1
DCB Decachlorobiphenyl	103		37 - 150	02/07/22 23:58	02/08/22 09:41	1
Tetrachloro-m-xylene	116		54 - 150	02/07/22 23:58	02/08/22 09:41	1
Tetrachloro-m-xylene	83		54 - 150	02/07/22 23:58	02/08/22 09:41	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	☆	02/04/22 20:38	02/06/22 10:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	103		65 - 150	02/04/22 20:38	02/06/22 10:51	1
2,4-Dichlorophenylacetic acid	120		65 - 150	02/04/22 20:38	02/06/22 10:51	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.059	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
8:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.020	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
NEtFOSAA	0.24	U	0.24	0.026	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
NMeFOSAA	0.24	U	0.24	0.037	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorobutanesulfonic acid	0.48	U	0.48	0.43	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorobutanoic acid	0.052	J	0.24	0.029	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorodecanesulfonic acid	0.24	U	0.24	0.025	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorodecanoic acid	0.043	J	0.24	0.029	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorododecanoic acid	0.24	U	0.24	0.028	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluoroheptanesulfonic acid	0.24	U	0.24	0.024	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluoroheptanoic acid	0.24	U	0.24	0.029	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorohexanesulfonic acid	0.24	U	0.24	0.023	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorohexanoic acid	0.037	J	0.24	0.023	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorononanoic acid	0.033	J	0.24	0.028	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorooctanesulfonamide	0.24	U	0.24	0.025	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorooctanesulfonic acid	0.82		0.24	0.042	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorooctanoic acid	0.088	J	0.24	0.026	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluoropentanoic acid	0.24	U	0.24	0.029	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorotetradecanoic acid	0.24	U	0.24	0.029	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluorotridecanoic acid	0.24	U	0.24	0.025	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1
Perfluoroundecanoic acid	0.24	U	0.24	0.067	ug/Kg	☆	02/09/22 10:43	02/11/22 04:40	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	95		10 - 200	02/09/22 10:43	02/11/22 04:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Client Sample ID: 131_PE-17

Lab Sample ID: 460-251737-1

Date Collected: 02/02/22 08:30

Matrix: Solid

Date Received: 02/02/22 18:00

Percent Solids: 83.0

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	91		15 - 200	02/09/22 10:43	02/11/22 04:40	1
13C2 PFTeDA	84		10 - 169	02/09/22 10:43	02/11/22 04:40	1
13C3 PFBS	83		27 - 179	02/09/22 10:43	02/11/22 04:40	1
13C4 PFBA	80		28 - 153	02/09/22 10:43	02/11/22 04:40	1
13C4 PFHpA	82		10 - 178	02/09/22 10:43	02/11/22 04:40	1
13C5 PFPeA	76		24 - 161	02/09/22 10:43	02/11/22 04:40	1
13C8 PFOA	75		26 - 159	02/09/22 10:43	02/11/22 04:40	1
13C8 PFOS	85		41 - 154	02/09/22 10:43	02/11/22 04:40	1
d3-NMeFOSAA	52		10 - 178	02/09/22 10:43	02/11/22 04:40	1
d5-NEtFOSAA	64		10 - 193	02/09/22 10:43	02/11/22 04:40	1
13C3 PFHxS	82		24 - 171	02/09/22 10:43	02/11/22 04:40	1
13C5 PFHxA	78		10 - 174	02/09/22 10:43	02/11/22 04:40	1
13C6 PFDA	84		26 - 161	02/09/22 10:43	02/11/22 04:40	1
13C7 PFUnA	81		12 - 173	02/09/22 10:43	02/11/22 04:40	1
13C8 FOSA	36		14 - 163	02/09/22 10:43	02/11/22 04:40	1
13C2-PFDoDA	79		11 - 166	02/09/22 10:43	02/11/22 04:40	1
13C9 PFNA	86		26 - 165	02/09/22 10:43	02/11/22 04:40	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	J	1.2	0.10	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Arsenic	4.1		1.2	0.12	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Barium	116		2.3	0.17	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Beryllium	0.39	J	0.47	0.067	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Cadmium	0.37	J	1.2	0.13	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Chromium	12.1		2.3	0.31	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Copper	41.4		2.3	0.43	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Manganese	263		4.7	0.47	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Nickel	23.9		2.3	0.55	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Lead	124		0.70	0.23	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Selenium	0.30	J	1.5	0.15	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1
Zinc	221		9.4	3.6	mg/Kg	☆	02/12/22 09:59	02/14/22 15:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.78		0.019	0.0090	mg/Kg	☆	02/04/22 03:11	02/04/22 07:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.1		2.0	2.0	mg/Kg			02/14/22 16:00	1
Cr (VI)	1.0	J	2.4	1.0	mg/Kg	☆	02/08/22 10:02	02/09/22 12:20	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	☆	02/06/22 06:53	02/06/22 15:59	1
Percent Moisture	17.0		1.0	1.0	%			02/04/22 03:32	1
Percent Solids	83.0		1.0	1.0	%			02/04/22 03:32	1

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Client Sample ID: 132_TB-11

Lab Sample ID: 460-251737-2

Date Collected: 02/02/22 08:30

Matrix: Water

Date Received: 02/02/22 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/04/22 09:26	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/04/22 09:26	1
Acetone	5.0	U	5.0	4.4	ug/L			02/04/22 09:26	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/04/22 09:26	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/04/22 09:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/04/22 09:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/04/22 09:26	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/04/22 09:26	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/04/22 09:26	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/04/22 09:26	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/04/22 09:26	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/04/22 09:26	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/04/22 09:26	1
Benzene	1.0	U	1.0	0.20	ug/L			02/04/22 09:26	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/04/22 09:26	1
Toluene	1.0	U	1.0	0.38	ug/L			02/04/22 09:26	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/04/22 09:26	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/04/22 09:26	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/04/22 09:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/04/22 09:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/04/22 09:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/04/22 09:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/04/22 09:26	1
1,4-Dioxane	50	U	50	28	ug/L			02/04/22 09:26	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/04/22 09:26	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/04/22 09:26	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/04/22 09:26	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/04/22 09:26	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/04/22 09:26	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/04/22 09:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 123		02/04/22 09:26	1
Toluene-d8 (Surr)	102		80 - 120		02/04/22 09:26	1
4-Bromofluorobenzene	101		76 - 120		02/04/22 09:26	1
Dibromofluoromethane (Surr)	98		77 - 124		02/04/22 09:26	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-251737-1	131_PE-17	107	91	105	91
LCS 460-827019/4	Lab Control Sample	102	96	104	99
LCSD 460-827019/5	Lab Control Sample Dup	106	97	105	101
MB 460-827019/8	Method Blank	102	96	101	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-251737-2	132_TB-11	95	102	101	98
460-251761-B-2 MS	Matrix Spike	96	100	102	100
460-251761-B-2 MSD	Matrix Spike Duplicate	97	99	102	98
LCS 460-826605/4	Lab Control Sample	98	101	101	98
MB 460-826605/8	Method Blank	97	100	100	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-251303-A-1-D MS	Matrix Spike	88	75	78	61	74	70
460-251303-A-1-E MSD	Matrix Spike Duplicate	75	73	71	52	71	62
460-251737-1	131_PE-17	72	75	85	58	77	75
LCS 460-826666/2-A	Lab Control Sample	73	75	83	54	75	75
LCSD 460-826666/3-A	Lab Control Sample Dup	73	77	82	55	76	75
MB 460-826666/1-A	Method Blank	73	75	81	46	76	72

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

FBP = 2-Fluorobiphenyl

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-251737-1	131_PE-17	96	91	63	64
460-251737-1 MS	131_PE-17	92	88	69	71
460-251737-1 MSD	131_PE-17	91	85	67	69
LCS 460-826858/2-A	Lab Control Sample	85	79	77	77
LCSD 460-826858/3-A	Lab Control Sample Dup	84	81	77	76
MB 460-826858/1-A	Method Blank	81	76	73	74
Surrogate Legend					
DCBP = DCB Decachlorobiphenyl					
TCX = Tetrachloro-m-xylene					

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
240-162399-B-1-A MS	Matrix Spike	103	99	92	88
240-162399-B-1-B MSD	Matrix Spike Duplicate	100	95	92	83
460-251737-1	131_PE-17	103	134	83	116
LCS 460-827063/2-A	Lab Control Sample	110	103	102	93
LCSD 460-827063/3-A	Lab Control Sample Dup	111	106	103	93
MB 460-827063/1-A	Method Blank	114	111	108	101
Surrogate Legend					
DCBP = DCB Decachlorobiphenyl					
TCX = Tetrachloro-m-xylene					

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-251737-1	131_PE-17	120	103
LCS 460-826555/2-A	Lab Control Sample	120	111
LCSD 460-826555/3-A	Lab Control Sample Dup	122	113
MB 460-826555/1-A	Method Blank	114	108
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (10-200)	M282FTS (15-200)	PFTDA (10-169)	C3PFBS (27-179)	PFBA (28-153)	C4PFHA (10-178)	PFPeA (24-161)	C8PFOA (26-159)
460-251533-A-24-E MS	Matrix Spike	104	103	100	100	76	78	73	80
460-251533-A-24-F MSD	Matrix Spike Duplicate	94	94	92	93	70	77	69	75
460-251737-1	131_PE-17	95	91	84	83	80	82	76	75
LCS 410-222270/2-B	Lab Control Sample	84	79	84	93	88	87	84	87
MB 410-222270/1-B	Method Blank	93	80	92	96	99	100	92	100

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C8PFOS (41-154)	d3NMFOS (10-178)	d5NEFOS (10-193)	C3PFHS (24-171)	13C5PHA (10-174)	C6PFDA (26-161)	13C7PUA (12-173)	PFOSA (14-163)
460-251533-A-24-E MS	Matrix Spike	98	49	66	99	76	90	87	62
460-251533-A-24-F MSD	Matrix Spike Duplicate	93	46	62	94	72	86	86	61
460-251737-1	131_PE-17	85	52	64	82	78	84	81	36
LCS 410-222270/2-B	Lab Control Sample	90	60	65	92	86	91	92	73
MB 410-222270/1-B	Method Blank	102	66	78	101	101	97	99	83

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (11-166)	C9PFNA (26-165)
460-251533-A-24-E MS	Matrix Spike	105	85
460-251533-A-24-F MSD	Matrix Spike Duplicate	94	81
460-251737-1	131_PE-17	79	86
LCS 410-222270/2-B	Lab Control Sample	83	94
MB 410-222270/1-B	Method Blank	91	104

Surrogate Legend

M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
PFDODA = 13C2-PFDODA
C9PFNA = 13C9 PFNA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-826605/8

Matrix: Water

Analysis Batch: 826605

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/04/22 08:43	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/04/22 08:43	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/04/22 08:43	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/04/22 08:43	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/04/22 08:43	1
Acetone	5.0	U	5.0	4.4	ug/L			02/04/22 08:43	1
Benzene	1.0	U	1.0	0.20	ug/L			02/04/22 08:43	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/04/22 08:43	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/04/22 08:43	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/04/22 08:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/04/22 08:43	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/04/22 08:43	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/04/22 08:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/04/22 08:43	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/04/22 08:43	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/04/22 08:43	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/04/22 08:43	1
1,4-Dioxane	50	U	50	28	ug/L			02/04/22 08:43	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/04/22 08:43	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/04/22 08:43	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/04/22 08:43	1
Toluene	1.0	U	1.0	0.38	ug/L			02/04/22 08:43	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/04/22 08:43	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/04/22 08:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/04/22 08:43	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/04/22 08:43	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/04/22 08:43	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/04/22 08:43	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/04/22 08:43	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/04/22 08:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 123		02/04/22 08:43	1
4-Bromofluorobenzene	100		76 - 120		02/04/22 08:43	1
Toluene-d8 (Surr)	100		80 - 120		02/04/22 08:43	1
Dibromofluoromethane (Surr)	100		77 - 124		02/04/22 08:43	1

Lab Sample ID: LCS 460-826605/4

Matrix: Water

Analysis Batch: 826605

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	20.1		ug/L		101	68 - 133
1,1-Dichloroethane	20.0	20.1		ug/L		100	73 - 130
1,2-Dichloroethane	20.0	19.5		ug/L		98	75 - 121
1,1,1-Trichloroethane	20.0	20.2		ug/L		101	68 - 128
2-Butanone (MEK)	100	97.6		ug/L		98	69 - 128
Acetone	100	95.5		ug/L		96	61 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-826605/4

Matrix: Water

Analysis Batch: 826605

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	21.0		ug/L		105	78 - 126
Carbon tetrachloride	20.0	19.4		ug/L		97	56 - 131
Chloroform	20.0	20.0		ug/L		100	78 - 125
Chlorobenzene	20.0	20.2		ug/L		101	80 - 119
cis-1,2-Dichloroethene	20.0	19.4		ug/L		97	78 - 121
Ethylbenzene	20.0	20.1		ug/L		100	78 - 120
Methylene Chloride	20.0	20.4		ug/L		102	74 - 127
m-Xylene & p-Xylene	20.0	20.8		ug/L		104	78 - 123
Methyl tert-butyl ether	20.0	20.4		ug/L		102	65 - 131
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	80 - 121
1,4-Dichlorobenzene	20.0	19.5		ug/L		97	80 - 118
o-Xylene	20.0	20.5		ug/L		102	78 - 122
1,2-Dichlorobenzene	20.0	19.9		ug/L		99	79 - 122
1,4-Dioxane	400	511		ug/L		128	70 - 142
1,2,4-Trimethylbenzene	20.0	19.6		ug/L		98	75 - 125
Tetrachloroethene	20.0	20.8		ug/L		104	70 - 127
1,3,5-Trimethylbenzene	20.0	19.2		ug/L		96	75 - 125
Toluene	20.0	20.2		ug/L		101	78 - 119
N-Propylbenzene	20.0	20.0		ug/L		100	74 - 129
sec-Butylbenzene	20.0	20.0		ug/L		100	73 - 129
trans-1,2-Dichloroethene	20.0	20.2		ug/L		101	74 - 126
tert-Butylbenzene	20.0	19.6		ug/L		98	72 - 124
Trichloroethene	20.0	19.3		ug/L		97	71 - 121
n-Butylbenzene	20.0	19.8		ug/L		99	69 - 135
Vinyl chloride	20.0	19.6		ug/L		98	61 - 144
Xylenes, Total	40.0	41.3		ug/L		103	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		75 - 123
4-Bromofluorobenzene	101		76 - 120
Toluene-d8 (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	98		77 - 124

Lab Sample ID: 460-251761-B-2 MS

Matrix: Water

Analysis Batch: 826605

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.0	U	20.0	20.2		ug/L		101	68 - 133
1,1-Dichloroethane	1.0	U	20.0	20.7		ug/L		104	73 - 130
1,2-Dichloroethane	1.0	U	20.0	20.8		ug/L		104	75 - 121
1,1,1-Trichloroethane	1.0	U	20.0	21.6		ug/L		108	68 - 128
2-Butanone (MEK)	5.0	U	100	99.9		ug/L		100	69 - 128
Acetone	5.0	U	100	87.0		ug/L		87	61 - 134
Benzene	1.0	U	20.0	21.4		ug/L		107	78 - 126
Carbon tetrachloride	1.0	U	20.0	21.3		ug/L		107	56 - 131
Chloroform	1.0	U	20.0	20.7		ug/L		103	78 - 125
Chlorobenzene	1.0	U	20.0	20.7		ug/L		104	80 - 119

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-251761-B-2 MS

Matrix: Water

Analysis Batch: 826605

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	1.0	U	20.0	20.6		ug/L		103	78 - 121
Ethylbenzene	1.0	U	20.0	21.4		ug/L		107	78 - 120
Methylene Chloride	1.2		20.0	21.9		ug/L		103	74 - 127
m-Xylene & p-Xylene	1.0	U	20.0	21.5		ug/L		107	78 - 123
Methyl tert-butyl ether	1.0	U	20.0	20.5		ug/L		103	65 - 131
1,3-Dichlorobenzene	1.0	U	20.0	20.5		ug/L		103	80 - 121
1,4-Dichlorobenzene	1.0	U	20.0	20.5		ug/L		102	80 - 118
o-Xylene	1.0	U	20.0	21.0		ug/L		105	78 - 122
1,2-Dichlorobenzene	1.0	U	20.0	20.9		ug/L		105	79 - 122
1,4-Dioxane	50	U	400	458		ug/L		115	70 - 142
1,2,4-Trimethylbenzene	1.0	U	20.0	20.4		ug/L		102	75 - 125
Tetrachloroethene	1.0	U	20.0	22.2		ug/L		111	70 - 127
1,3,5-Trimethylbenzene	1.0	U	20.0	20.3		ug/L		102	75 - 125
Toluene	1.0	U	20.0	21.6		ug/L		108	78 - 119
N-Propylbenzene	1.0	U	20.0	21.2		ug/L		106	74 - 129
sec-Butylbenzene	1.0	U	20.0	20.9		ug/L		104	73 - 129
trans-1,2-Dichloroethene	1.0	U	20.0	21.7		ug/L		109	74 - 126
tert-Butylbenzene	1.0	U	20.0	20.5		ug/L		102	72 - 124
Trichloroethene	1.0	U	20.0	20.2		ug/L		101	71 - 121
n-Butylbenzene	1.0	U	20.0	20.4		ug/L		102	69 - 135
Vinyl chloride	1.0	U	20.0	21.8		ug/L		109	61 - 144
Xylenes, Total	2.0	U	40.0	42.5		ug/L		106	78 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		75 - 123
4-Bromofluorobenzene	102		76 - 120
Toluene-d8 (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	100		77 - 124

Lab Sample ID: 460-251761-B-2 MSD

Matrix: Water

Analysis Batch: 826605

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	1.0	U	20.0	21.7		ug/L		109	68 - 133	7	30
1,1-Dichloroethane	1.0	U	20.0	21.1		ug/L		106	73 - 130	2	30
1,2-Dichloroethane	1.0	U	20.0	20.6		ug/L		103	75 - 121	1	30
1,1,1-Trichloroethane	1.0	U	20.0	21.4		ug/L		107	68 - 128	1	30
2-Butanone (MEK)	5.0	U	100	105		ug/L		105	69 - 128	5	30
Acetone	5.0	U	100	92.3		ug/L		92	61 - 134	6	30
Benzene	1.0	U	20.0	20.9		ug/L		104	78 - 126	3	30
Carbon tetrachloride	1.0	U	20.0	20.1		ug/L		100	56 - 131	6	30
Chloroform	1.0	U	20.0	21.0		ug/L		105	78 - 125	1	30
Chlorobenzene	1.0	U	20.0	20.5		ug/L		103	80 - 119	1	30
cis-1,2-Dichloroethene	1.0	U	20.0	20.3		ug/L		101	78 - 121	2	30
Ethylbenzene	1.0	U	20.0	21.2		ug/L		106	78 - 120	1	30
Methylene Chloride	1.2		20.0	22.2		ug/L		105	74 - 127	2	30
m-Xylene & p-Xylene	1.0	U	20.0	21.5		ug/L		108	78 - 123	0	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-251761-B-2 MSD

Matrix: Water

Analysis Batch: 826605

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	1.0	U	20.0	20.7		ug/L		103	65 - 131	1	30
1,3-Dichlorobenzene	1.0	U	20.0	20.4		ug/L		102	80 - 121	0	30
1,4-Dichlorobenzene	1.0	U	20.0	20.5		ug/L		102	80 - 118	0	30
o-Xylene	1.0	U	20.0	21.5		ug/L		107	78 - 122	2	30
1,2-Dichlorobenzene	1.0	U	20.0	21.2		ug/L		106	79 - 122	1	30
1,4-Dioxane	50	U	400	525		ug/L		131	70 - 142	14	30
1,2,4-Trimethylbenzene	1.0	U	20.0	21.0		ug/L		105	75 - 125	3	30
Tetrachloroethene	1.0	U	20.0	21.8		ug/L		109	70 - 127	2	30
1,3,5-Trimethylbenzene	1.0	U	20.0	20.6		ug/L		103	75 - 125	1	30
Toluene	1.0	U	20.0	21.1		ug/L		106	78 - 119	2	30
N-Propylbenzene	1.0	U	20.0	21.1		ug/L		106	74 - 129	1	30
sec-Butylbenzene	1.0	U	20.0	21.0		ug/L		105	73 - 129	1	30
trans-1,2-Dichloroethene	1.0	U	20.0	21.3		ug/L		106	74 - 126	2	30
tert-Butylbenzene	1.0	U	20.0	20.5		ug/L		102	72 - 124	0	30
Trichloroethene	1.0	U	20.0	20.2		ug/L		101	71 - 121	0	30
n-Butylbenzene	1.0	U	20.0	20.2		ug/L		101	69 - 135	1	30
Vinyl chloride	1.0	U	20.0	21.0		ug/L		105	61 - 144	4	30
Xylenes, Total	2.0	U	40.0	43.0		ug/L		108	78 - 122	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		75 - 123
4-Bromofluorobenzene	102		76 - 120
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	98		77 - 124

Lab Sample ID: MB 460-827019/8

Matrix: Solid

Analysis Batch: 827019

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			02/07/22 19:09	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			02/07/22 19:09	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			02/07/22 19:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			02/07/22 19:09	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			02/07/22 19:09	1
Acetone	6.0	U	6.0	5.7	ug/Kg			02/07/22 19:09	1
Benzene	1.0	U	1.0	0.26	ug/Kg			02/07/22 19:09	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			02/07/22 19:09	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			02/07/22 19:09	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			02/07/22 19:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			02/07/22 19:09	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			02/07/22 19:09	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			02/07/22 19:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			02/07/22 19:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			02/07/22 19:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			02/07/22 19:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			02/07/22 19:09	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			02/07/22 19:09	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-827019/8

Matrix: Solid

Analysis Batch: 827019

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			02/07/22 19:09	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			02/07/22 19:09	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			02/07/22 19:09	1
Toluene	1.0	U	1.0	0.23	ug/Kg			02/07/22 19:09	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			02/07/22 19:09	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/07/22 19:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			02/07/22 19:09	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			02/07/22 19:09	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			02/07/22 19:09	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/07/22 19:09	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			02/07/22 19:09	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			02/07/22 19:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 145		02/07/22 19:09	1
4-Bromofluorobenzene	96		70 - 139		02/07/22 19:09	1
Toluene-d8 (Surr)	94		80 - 120		02/07/22 19:09	1
Dibromofluoromethane (Surr)	101		48 - 150		02/07/22 19:09	1

Lab Sample ID: LCS 460-827019/4

Matrix: Solid

Analysis Batch: 827019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	19.9		ug/Kg		99	77 - 132
1,1-Dichloroethane	20.0	18.5		ug/Kg		93	76 - 129
1,2-Dichloroethane	20.0	19.4		ug/Kg		97	70 - 132
1,1,1-Trichloroethane	20.0	19.5		ug/Kg		97	78 - 132
2-Butanone (MEK)	100	89.1		ug/Kg		89	75 - 120
Acetone	100	79.1		ug/Kg		79	63 - 131
Benzene	20.0	18.6		ug/Kg		93	80 - 123
Carbon tetrachloride	20.0	19.8		ug/Kg		99	72 - 136
Chloroform	20.0	18.9		ug/Kg		94	79 - 126
Chlorobenzene	20.0	18.0		ug/Kg		90	80 - 120
cis-1,2-Dichloroethene	20.0	20.1		ug/Kg		101	80 - 123
Ethylbenzene	20.0	18.3		ug/Kg		91	80 - 120
Methylene Chloride	20.0	21.2		ug/Kg		106	76 - 127
m-Xylene & p-Xylene	20.0	17.9		ug/Kg		90	80 - 120
Methyl tert-butyl ether	20.0	21.7		ug/Kg		108	80 - 125
1,3-Dichlorobenzene	20.0	18.4		ug/Kg		92	80 - 120
1,4-Dichlorobenzene	20.0	18.2		ug/Kg		91	80 - 120
o-Xylene	20.0	18.4		ug/Kg		92	80 - 120
1,2-Dichlorobenzene	20.0	19.0		ug/Kg		95	80 - 120
1,4-Dioxane	400	360		ug/Kg		90	73 - 136
1,2,4-Trimethylbenzene	20.0	17.5		ug/Kg		87	79 - 120
Tetrachloroethene	20.0	20.5		ug/Kg		103	78 - 123
1,3,5-Trimethylbenzene	20.0	17.3		ug/Kg		86	79 - 120
Toluene	20.0	18.5		ug/Kg		92	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-827019/4

Matrix: Solid

Analysis Batch: 827019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	20.0	17.6		ug/Kg		88	78 - 120
sec-Butylbenzene	20.0	16.8		ug/Kg		84	78 - 120
trans-1,2-Dichloroethene	20.0	20.9		ug/Kg		105	78 - 128
tert-Butylbenzene	20.0	17.1		ug/Kg		86	76 - 120
Trichloroethene	20.0	18.5		ug/Kg		92	79 - 120
n-Butylbenzene	20.0	17.6		ug/Kg		88	77 - 123
Vinyl chloride	20.0	17.6		ug/Kg		88	56 - 147
Xylenes, Total	40.0	36.3		ug/Kg		91	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 145
4-Bromofluorobenzene	96		70 - 139
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	104		48 - 150

Lab Sample ID: LCSD 460-827019/5

Matrix: Solid

Analysis Batch: 827019

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	21.2		ug/Kg		106	77 - 132	7	30
1,1-Dichloroethane	20.0	21.5		ug/Kg		107	76 - 129	15	30
1,2-Dichloroethane	20.0	21.6		ug/Kg		108	70 - 132	10	30
1,1,1-Trichloroethane	20.0	21.6		ug/Kg		108	78 - 132	10	30
2-Butanone (MEK)	100	100		ug/Kg		100	75 - 120	12	30
Acetone	100	89.5		ug/Kg		90	63 - 131	12	30
Benzene	20.0	21.1		ug/Kg		105	80 - 123	12	30
Carbon tetrachloride	20.0	21.6		ug/Kg		108	72 - 136	9	30
Chloroform	20.0	21.4		ug/Kg		107	79 - 126	12	30
Chlorobenzene	20.0	20.4		ug/Kg		102	80 - 120	12	30
cis-1,2-Dichloroethene	20.0	22.6		ug/Kg		113	80 - 123	12	30
Ethylbenzene	20.0	21.1		ug/Kg		106	80 - 120	15	30
Methylene Chloride	20.0	23.5		ug/Kg		118	76 - 127	10	30
m-Xylene & p-Xylene	20.0	20.2		ug/Kg		101	80 - 120	12	30
Methyl tert-butyl ether	20.0	22.9		ug/Kg		115	80 - 125	6	30
1,3-Dichlorobenzene	20.0	20.4		ug/Kg		102	80 - 120	10	30
1,4-Dichlorobenzene	20.0	20.1		ug/Kg		100	80 - 120	10	30
o-Xylene	20.0	20.5		ug/Kg		103	80 - 120	11	30
1,2-Dichlorobenzene	20.0	21.4		ug/Kg		107	80 - 120	12	30
1,4-Dioxane	400	403		ug/Kg		101	73 - 136	11	30
1,2,4-Trimethylbenzene	20.0	20.1		ug/Kg		101	79 - 120	14	30
Tetrachloroethene	20.0	23.6		ug/Kg		118	78 - 123	14	30
1,3,5-Trimethylbenzene	20.0	19.9		ug/Kg		100	79 - 120	14	30
Toluene	20.0	20.8		ug/Kg		104	80 - 120	12	30
N-Propylbenzene	20.0	20.0		ug/Kg		100	78 - 120	13	30
sec-Butylbenzene	20.0	20.0		ug/Kg		100	78 - 120	18	30
trans-1,2-Dichloroethene	20.0	23.4		ug/Kg		117	78 - 128	11	30
tert-Butylbenzene	20.0	20.5		ug/Kg		102	76 - 120	18	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-827019/5

Matrix: Solid

Analysis Batch: 827019

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	20.0	21.5		ug/Kg		107	79 - 120	15	30
n-Butylbenzene	20.0	20.7		ug/Kg		103	77 - 123	16	30
Vinyl chloride	20.0	17.0		ug/Kg		85	56 - 147	3	30
Xylenes, Total	40.0	40.7		ug/Kg		102	80 - 120	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		77 - 145
4-Bromofluorobenzene	97		70 - 139
Toluene-d8 (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	105		48 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-826666/1-A

Matrix: Solid

Analysis Batch: 826723

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826666

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
2-Methylphenol	330	U	330	12	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Pentachlorophenol	270	U	270	68	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Naphthalene	330	U	330	5.7	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Acenaphthylene	330	U	330	3.3	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Acenaphthene	330	U	330	9.4	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Dibenzofuran	330	U	330	4.6	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Fluorene	330	U	330	4.5	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Hexachlorobenzene	33	U	33	16	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Phenanthrene	330	U	330	5.8	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Anthracene	330	U	330	10	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Fluoranthene	330	U	330	12	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Pyrene	330	U	330	8.2	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Chrysene	330	U	330	5.6	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		02/04/22 10:21	02/04/22 17:14	1
1,4-Dioxane	33	U	33	29	ug/Kg		02/04/22 10:21	02/04/22 17:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	73		11 - 104	02/04/22 10:21	02/04/22 17:14	1
Phenol-d5 (Surr)	75		15 - 100	02/04/22 10:21	02/04/22 17:14	1
Terphenyl-d14 (Surr)	81		12 - 126	02/04/22 10:21	02/04/22 17:14	1
2,4,6-Tribromophenol (Surr)	46		10 - 123	02/04/22 10:21	02/04/22 17:14	1
2-Fluorophenol (Surr)	76		10 - 105	02/04/22 10:21	02/04/22 17:14	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-826666/1-A

Matrix: Solid

Analysis Batch: 826723

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826666

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		14 - 103	02/04/22 10:21	02/04/22 17:14	1

Lab Sample ID: LCS 460-826666/2-A

Matrix: Solid

Analysis Batch: 826723

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826666

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	3000		ug/Kg		90	63 - 110
2-Methylphenol	3330	3030		ug/Kg		91	63 - 108
3 & 4 Methylphenol	3330	3070		ug/Kg		92	61 - 108
Pentachlorophenol	6670	4250		ug/Kg		64	44 - 126
Naphthalene	3330	3000		ug/Kg		90	63 - 106
Acenaphthylene	3330	2910		ug/Kg		87	64 - 108
Acenaphthene	3330	3130		ug/Kg		94	53 - 110
Dibenzofuran	3330	3090		ug/Kg		93	65 - 108
Fluorene	3330	3090		ug/Kg		93	65 - 109
Hexachlorobenzene	3330	2710		ug/Kg		81	61 - 113
Phenanthrene	3330	3070		ug/Kg		92	66 - 112
Anthracene	3330	3150		ug/Kg		94	67 - 114
Fluoranthene	3330	3070		ug/Kg		92	61 - 106
Pyrene	3330	3320		ug/Kg		100	61 - 111
Benzo[a]anthracene	3330	3340		ug/Kg		100	67 - 115
Chrysene	3330	3200		ug/Kg		96	71 - 122
Benzo[b]fluoranthene	3330	3570		ug/Kg		107	70 - 125
Benzo[k]fluoranthene	3330	3380		ug/Kg		101	67 - 115
Benzo[a]pyrene	3330	3150		ug/Kg		95	73 - 123
Indeno[1,2,3-cd]pyrene	3330	3100		ug/Kg		93	62 - 121
Dibenz(a,h)anthracene	3330	3380		ug/Kg		101	66 - 119
Benzo[g,h,i]perylene	3330	3060		ug/Kg		92	61 - 113
1,4-Dioxane	3330	2790 *		ug/Kg		84	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	73		11 - 104
Phenol-d5 (Surr)	75		15 - 100
Terphenyl-d14 (Surr)	83		12 - 126
2,4,6-Tribromophenol (Surr)	54		10 - 123
2-Fluorophenol (Surr)	75		10 - 105
2-Fluorobiphenyl	75		14 - 103

Lab Sample ID: LCSD 460-826666/3-A

Matrix: Solid

Analysis Batch: 826723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826666

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Phenol	3330	3030		ug/Kg		91	63 - 110	1	30
2-Methylphenol	3330	3170		ug/Kg		95	63 - 108	4	30
3 & 4 Methylphenol	3330	3120		ug/Kg		94	61 - 108	2	30
Pentachlorophenol	6670	4370		ug/Kg		65	44 - 126	3	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-826666/3-A

Matrix: Solid

Analysis Batch: 826723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826666

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	3330	3000		ug/Kg		90	63 - 106	0	30
Acenaphthylene	3330	2910		ug/Kg		87	64 - 108	0	30
Acenaphthene	3330	3150		ug/Kg		95	53 - 110	1	30
Dibenzofuran	3330	3090		ug/Kg		93	65 - 108	0	30
Fluorene	3330	3110		ug/Kg		93	65 - 109	1	30
Hexachlorobenzene	3330	2810		ug/Kg		84	61 - 113	4	30
Phenanthrene	3330	3110		ug/Kg		93	66 - 112	1	30
Anthracene	3330	3200		ug/Kg		96	67 - 114	2	30
Fluoranthene	3330	3130		ug/Kg		94	61 - 106	2	30
Pyrene	3330	3270		ug/Kg		98	61 - 111	1	30
Benzo[a]anthracene	3330	3340		ug/Kg		100	67 - 115	0	30
Chrysene	3330	3150		ug/Kg		94	71 - 122	2	30
Benzo[b]fluoranthene	3330	3450		ug/Kg		103	70 - 125	3	30
Benzo[k]fluoranthene	3330	3540		ug/Kg		106	67 - 115	5	30
Benzo[a]pyrene	3330	3230		ug/Kg		97	73 - 123	3	30
Indeno[1,2,3-cd]pyrene	3330	3260		ug/Kg		98	62 - 121	5	30
Dibenz(a,h)anthracene	3330	3670		ug/Kg		110	66 - 119	8	30
Benzo[g,h,i]perylene	3330	3150		ug/Kg		94	61 - 113	3	30
1,4-Dioxane	3330	2800 *		ug/Kg		84	31 - 81	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	73		11 - 104
Phenol-d5 (Surr)	77		15 - 100
Terphenyl-d14 (Surr)	82		12 - 126
2,4,6-Tribromophenol (Surr)	55		10 - 123
2-Fluorophenol (Surr)	76		10 - 105
2-Fluorobiphenyl	75		14 - 103

Lab Sample ID: 460-251303-A-1-D MS

Matrix: Solid

Analysis Batch: 826847

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826666

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3900	U	3940	3380	J	ug/Kg	✱	86	63 - 110
2-Methylphenol	3900	U	3940	3580	J	ug/Kg	✱	91	63 - 108
3 & 4 Methylphenol	3900	U	3940	3440	J	ug/Kg	✱	87	61 - 108
Pentachlorophenol	3100	U	7880	3540		ug/Kg	✱	45	44 - 126
Naphthalene	4000		3940	8620 *		ug/Kg	✱	116	63 - 106
Acenaphthylene	590	J	3940	3740	J	ug/Kg	✱	80	64 - 108
Acenaphthene	1600	J	3940	4920		ug/Kg	✱	85	53 - 110
Dibenzofuran	1200	J	3940	4780		ug/Kg	✱	90	65 - 108
Fluorene	3100	J	3940	7150		ug/Kg	✱	102	65 - 109
Hexachlorobenzene	390	U	3940	3300		ug/Kg	✱	84	61 - 113
Phenanthrene	7000		3940	11300		ug/Kg	✱	108	66 - 112
Anthracene	500	J	3940	3780	J	ug/Kg	✱	83	67 - 114
Fluoranthene	3900	U	3940	3570	J	ug/Kg	✱	91	61 - 106
Pyrene	870	J	3940	4240		ug/Kg	✱	86	61 - 111
Benzo[a]anthracene	390	U	3940	3550		ug/Kg	✱	90	67 - 115

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-251303-A-1-D MS

Matrix: Solid

Analysis Batch: 826847

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826666

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	3900	U	3940	3510	J	ug/Kg	✱	89	71 - 122
Benzo[b]fluoranthene	390	U	3940	3610		ug/Kg	✱	91	70 - 125
Benzo[k]fluoranthene	390	U	3940	3630		ug/Kg	✱	92	67 - 115
Benzo[a]pyrene	390	U	3940	3310		ug/Kg	✱	84	73 - 123
Indeno[1,2,3-cd]pyrene	390	U	3940	3740		ug/Kg	✱	95	62 - 121
Dibenz(a,h)anthracene	390	U	3940	3450		ug/Kg	✱	88	66 - 119
Benzo[g,h,i]perylene	3900	U	3940	3430	J	ug/Kg	✱	87	61 - 113
1,4-Dioxane	390	U *	3940	1940		ug/Kg	✱	49	31 - 81

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	88		11 - 104
Phenol-d5 (Surr)	75		15 - 100
Terphenyl-d14 (Surr)	78		12 - 126
2,4,6-Tribromophenol (Surr)	61		10 - 123
2-Fluorophenol (Surr)	74		10 - 105
2-Fluorobiphenyl	70		14 - 103

Lab Sample ID: 460-251303-A-1-E MSD

Matrix: Solid

Analysis Batch: 826847

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 826666

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3900	U	3940	3160	J	ug/Kg	✱	80	63 - 110	7	30
2-Methylphenol	3900	U	3940	3080	J	ug/Kg	✱	78	63 - 108	15	30
3 & 4 Methylphenol	3900	U	3940	3190	J	ug/Kg	✱	81	61 - 108	8	30
Pentachlorophenol	3100	U	7880	3300	*	ug/Kg	✱	42	44 - 126	7	30
Naphthalene	4000		3940	8420	*	ug/Kg	✱	111	63 - 106	2	30
Acenaphthylene	590	J	3940	3530	J	ug/Kg	✱	74	64 - 108	6	30
Acenaphthene	1600	J	3940	5000		ug/Kg	✱	88	53 - 110	2	30
Dibenzofuran	1200	J	3940	4500		ug/Kg	✱	83	65 - 108	6	30
Fluorene	3100	J	3940	7270		ug/Kg	✱	105	65 - 109	2	30
Hexachlorobenzene	390	U	3940	2970		ug/Kg	✱	75	61 - 113	11	30
Phenanthrene	7000		3940	10900		ug/Kg	✱	100	66 - 112	3	30
Anthracene	500	J	3940	3390	J	ug/Kg	✱	74	67 - 114	11	30
Fluoranthene	3900	U	3940	3180	J	ug/Kg	✱	81	61 - 106	12	30
Pyrene	870	J	3940	4170		ug/Kg	✱	84	61 - 111	2	30
Benzo[a]anthracene	390	U	3940	3310		ug/Kg	✱	84	67 - 115	7	30
Chrysene	3900	U	3940	3260	J	ug/Kg	✱	83	71 - 122	7	30
Benzo[b]fluoranthene	390	U	3940	3330		ug/Kg	✱	85	70 - 125	8	30
Benzo[k]fluoranthene	390	U	3940	3460		ug/Kg	✱	88	67 - 115	5	30
Benzo[a]pyrene	390	U	3940	3140		ug/Kg	✱	80	73 - 123	5	30
Indeno[1,2,3-cd]pyrene	390	U	3940	3300		ug/Kg	✱	84	62 - 121	13	30
Dibenz(a,h)anthracene	390	U	3940	3370		ug/Kg	✱	86	66 - 119	3	30
Benzo[g,h,i]perylene	3900	U	3940	3090	J	ug/Kg	✱	78	61 - 113	10	30
1,4-Dioxane	390	U *	3940	2060		ug/Kg	✱	52	31 - 81	6	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	75		11 - 104

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-251303-A-1-E MSD

Matrix: Solid

Analysis Batch: 826847

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 826666

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Phenol-d5 (Surr)	73		15 - 100
Terphenyl-d14 (Surr)	71		12 - 126
2,4,6-Tribromophenol (Surr)	52		10 - 123
2-Fluorophenol (Surr)	71		10 - 105
2-Fluorobiphenyl	62		14 - 103

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-826858/1-A

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826858

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/05/22 19:04	02/06/22 18:19	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-826858/1-A

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826858

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Toxaphene	67	U	67	24	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
Toxaphene	67	U	67	24	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/05/22 19:04	02/06/22 18:19	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/05/22 19:04	02/06/22 18:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 150	02/05/22 19:04	02/06/22 18:19	1
DCB Decachlorobiphenyl	81		10 - 150	02/05/22 19:04	02/06/22 18:19	1
Tetrachloro-m-xylene	74		10 - 133	02/05/22 19:04	02/06/22 18:19	1
Tetrachloro-m-xylene	73		10 - 133	02/05/22 19:04	02/06/22 18:19	1

Lab Sample ID: LCS 460-826858/2-A

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826858

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	151		ug/Kg		113	70 - 140
4,4'-DDD	133	150		ug/Kg		113	70 - 140
4,4'-DDE	133	142		ug/Kg		107	71 - 137
4,4'-DDE	133	134		ug/Kg		101	71 - 137
4,4'-DDT	133	150		ug/Kg		112	63 - 131
4,4'-DDT	133	143		ug/Kg		107	63 - 131
Aldrin	133	135		ug/Kg		101	74 - 140
Aldrin	133	132		ug/Kg		99	74 - 140
alpha-BHC	133	139		ug/Kg		104	72 - 142
alpha-BHC	133	137		ug/Kg		103	72 - 142
beta-BHC	133	142		ug/Kg		106	65 - 137
beta-BHC	133	146		ug/Kg		110	65 - 137
delta-BHC	133	136		ug/Kg		102	70 - 143
delta-BHC	133	147		ug/Kg		110	70 - 143
Dieldrin	133	143		ug/Kg		107	70 - 135
Dieldrin	133	140		ug/Kg		105	70 - 135
Endosulfan I	133	142		ug/Kg		106	68 - 135
Endosulfan I	133	135		ug/Kg		102	68 - 135
Endosulfan II	133	149		ug/Kg		112	64 - 130
Endosulfan II	133	149		ug/Kg		112	64 - 130
Endosulfan sulfate	133	145		ug/Kg		109	66 - 143
Endosulfan sulfate	133	146		ug/Kg		109	66 - 143
Endrin	133	135		ug/Kg		102	68 - 136
Endrin	133	138		ug/Kg		103	68 - 136
Endrin aldehyde	133	141		ug/Kg		106	68 - 132
Endrin aldehyde	133	146		ug/Kg		109	68 - 132
Endrin ketone	133	150		ug/Kg		113	60 - 150
Endrin ketone	133	147		ug/Kg		110	60 - 150
gamma-BHC (Lindane)	133	143		ug/Kg		107	70 - 134
gamma-BHC (Lindane)	133	136		ug/Kg		102	70 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-826858/2-A

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826858

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Heptachlor	133	145		ug/Kg		109	69 - 134
Heptachlor	133	136		ug/Kg		102	69 - 134
Heptachlor epoxide	133	140		ug/Kg		105	70 - 135
Heptachlor epoxide	133	135		ug/Kg		101	70 - 135
Methoxychlor	133	151		ug/Kg		113	57 - 135
Methoxychlor	133	147		ug/Kg		110	57 - 135
cis-Chlordane	133	140		ug/Kg		105	70 - 136
cis-Chlordane	133	136		ug/Kg		102	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	79		10 - 150
DCB Decachlorobiphenyl	85		10 - 150
Tetrachloro-m-xylene	77		10 - 133
Tetrachloro-m-xylene	77		10 - 133

Lab Sample ID: LCSD 460-826858/3-A

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826858

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	133	149		ug/Kg		112	70 - 140	1	30
4,4'-DDD	133	146		ug/Kg		110	70 - 140	3	30
4,4'-DDE	133	140		ug/Kg		105	71 - 137	1	30
4,4'-DDE	133	131		ug/Kg		98	71 - 137	3	30
4,4'-DDT	133	148		ug/Kg		111	63 - 131	1	30
4,4'-DDT	133	139		ug/Kg		104	63 - 131	3	30
Aldrin	133	133		ug/Kg		100	74 - 140	1	30
Aldrin	133	130		ug/Kg		97	74 - 140	2	30
alpha-BHC	133	137		ug/Kg		103	72 - 142	1	30
alpha-BHC	133	135		ug/Kg		101	72 - 142	2	30
beta-BHC	133	140		ug/Kg		105	65 - 137	1	30
beta-BHC	133	144		ug/Kg		108	65 - 137	2	30
delta-BHC	133	134		ug/Kg		101	70 - 143	1	30
delta-BHC	133	144		ug/Kg		108	70 - 143	2	30
Dieldrin	133	141		ug/Kg		106	70 - 135	1	30
Dieldrin	133	136		ug/Kg		102	70 - 135	3	30
Endosulfan I	133	140		ug/Kg		105	68 - 135	1	30
Endosulfan I	133	132		ug/Kg		99	68 - 135	3	30
Endosulfan II	133	147		ug/Kg		110	64 - 130	1	30
Endosulfan II	133	145		ug/Kg		109	64 - 130	3	30
Endosulfan sulfate	133	143		ug/Kg		107	66 - 143	1	30
Endosulfan sulfate	133	142		ug/Kg		106	66 - 143	3	30
Endrin	133	134		ug/Kg		100	68 - 136	1	30
Endrin	133	134		ug/Kg		101	68 - 136	3	30
Endrin aldehyde	133	140		ug/Kg		105	68 - 132	1	30
Endrin aldehyde	133	141		ug/Kg		106	68 - 132	3	30
Endrin ketone	133	149		ug/Kg		112	60 - 150	1	30
Endrin ketone	133	142		ug/Kg		107	60 - 150	3	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-826858/3-A

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826858

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
gamma-BHC (Lindane)	133	141		ug/Kg		106	70 - 134	1	30
gamma-BHC (Lindane)	133	133		ug/Kg		100	70 - 134	2	30
Heptachlor	133	143		ug/Kg		107	69 - 134	1	30
Heptachlor	133	133		ug/Kg		100	69 - 134	2	30
Heptachlor epoxide	133	138		ug/Kg		104	70 - 135	1	30
Heptachlor epoxide	133	132		ug/Kg		99	70 - 135	2	30
Methoxychlor	133	149		ug/Kg		112	57 - 135	1	30
Methoxychlor	133	143		ug/Kg		107	57 - 135	3	30
cis-Chlordane	133	138		ug/Kg		103	70 - 136	1	30
cis-Chlordane	133	132		ug/Kg		99	70 - 136	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
DCB Decachlorobiphenyl	81		10 - 150
DCB Decachlorobiphenyl	84		10 - 150
Tetrachloro-m-xylene	76		10 - 133
Tetrachloro-m-xylene	77		10 - 133

Lab Sample ID: 460-251737-1 MS

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: 131_PE-17

Prep Type: Total/NA

Prep Batch: 826858

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	29		161	219		ug/Kg	✱	119	70 - 140
4,4'-DDD	27		161	211		ug/Kg	✱	114	70 - 140
4,4'-DDE	8.1	U	161	192		ug/Kg	✱	119	71 - 137
4,4'-DDE	8.1	U	161	175		ug/Kg	✱	109	71 - 137
4,4'-DDT	28		161	218		ug/Kg	✱	119	63 - 131
4,4'-DDT	26		161	201		ug/Kg	✱	109	63 - 131
Aldrin	8.1	U	161	172		ug/Kg	✱	107	74 - 140
Aldrin	8.1	U	161	166		ug/Kg	✱	103	74 - 140
alpha-BHC	2.4	U	161	175		ug/Kg	✱	109	72 - 142
alpha-BHC	2.4	U	161	171		ug/Kg	✱	106	72 - 142
beta-BHC	2.4	U	161	178		ug/Kg	✱	111	65 - 137
beta-BHC	2.4	U	161	179		ug/Kg	✱	112	65 - 137
delta-BHC	2.4	U	161	171		ug/Kg	✱	106	70 - 143
delta-BHC	2.4	U	161	181		ug/Kg	✱	113	70 - 143
Dieldrin	2.4	U	161	194		ug/Kg	✱	120	70 - 135
Dieldrin	2.4	U	161	178		ug/Kg	✱	111	70 - 135
Endosulfan I	8.1	U	161	184		ug/Kg	✱	114	68 - 135
Endosulfan I	8.1	U	161	173		ug/Kg	✱	107	68 - 135
Endosulfan II	8.1	U	161	189		ug/Kg	✱	118	64 - 130
Endosulfan II	8.1	U	161	186		ug/Kg	✱	116	64 - 130
Endosulfan sulfate	8.1	U	161	162		ug/Kg	✱	101	66 - 143
Endosulfan sulfate	8.1	U	161	160		ug/Kg	✱	100	66 - 143
Endrin	8.1	U	161	183		ug/Kg	✱	114	68 - 136
Endrin	8.1	U	161	178		ug/Kg	✱	111	68 - 136
Endrin aldehyde	8.1	U	161	153		ug/Kg	✱	95	68 - 132
Endrin aldehyde	8.1	U	161	156		ug/Kg	✱	97	68 - 132

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-251737-1 MS

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: 131_PE-17

Prep Type: Total/NA

Prep Batch: 826858

Top Bottom 020000									
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier			Limits	
Endrin ketone	8.1	U	161	184		ug/Kg	☼	114	60 - 150
Endrin ketone	8.1	U	161	175		ug/Kg	☼	109	60 - 150
gamma-BHC (Lindane)	2.4	U	161	184		ug/Kg	☼	114	70 - 134
gamma-BHC (Lindane)	2.4	U	161	172		ug/Kg	☼	107	70 - 134
Heptachlor	8.1	U	161	187		ug/Kg	☼	116	69 - 134
Heptachlor	8.1	U	161	172		ug/Kg	☼	107	69 - 134
Heptachlor epoxide	8.1	U	161	181		ug/Kg	☼	113	70 - 135
Heptachlor epoxide	8.1	U	161	173		ug/Kg	☼	108	70 - 135
Methoxychlor	8.1	U	161	194		ug/Kg	☼	121	57 - 135
Methoxychlor	8.1	U	161	187		ug/Kg	☼	117	57 - 135
cis-Chlordane	8.1	U	161	181		ug/Kg	☼	113	70 - 136
cis-Chlordane	8.1	U	161	171		ug/Kg	☼	106	70 - 136
Surrogate	MS	MS	Limits						
	%Recovery	Qualifier							
DCB Decachlorobiphenyl	88		10 - 150						
DCB Decachlorobiphenyl	92		10 - 150						
Tetrachloro-m-xylene	71		10 - 133						
Tetrachloro-m-xylene	69		10 - 133						

Lab Sample ID: 460-251737-1 MSD

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: 131_PE-17

Prep Type: Total/NA

Prep Batch: 826858

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	29		161	215		ug/Kg	✱	116	70 - 140	2	30
4,4'-DDD	27		161	208		ug/Kg	✱	112	70 - 140	2	30
4,4'-DDE	8.1	U	161	188		ug/Kg	✱	117	71 - 137	2	30
4,4'-DDE	8.1	U	161	172		ug/Kg	✱	107	71 - 137	2	30
4,4'-DDT	28		161	218		ug/Kg	✱	118	63 - 131	0	30
4,4'-DDT	26		161	200		ug/Kg	✱	108	63 - 131	0	30
Aldrin	8.1	U	161	169		ug/Kg	✱	105	74 - 140	2	30
Aldrin	8.1	U	161	162		ug/Kg	✱	101	74 - 140	2	30
alpha-BHC	2.4	U	161	172		ug/Kg	✱	107	72 - 142	2	30
alpha-BHC	2.4	U	161	168		ug/Kg	✱	104	72 - 142	2	30
beta-BHC	2.4	U	161	176		ug/Kg	✱	110	65 - 137	1	30
beta-BHC	2.4	U	161	177		ug/Kg	✱	110	65 - 137	1	30
delta-BHC	2.4	U	161	172		ug/Kg	✱	107	70 - 143	0	30
delta-BHC	2.4	U	161	181		ug/Kg	✱	113	70 - 143	0	30
Dieldrin	2.4	U	161	191		ug/Kg	✱	119	70 - 135	2	30
Dieldrin	2.4	U	161	175		ug/Kg	✱	109	70 - 135	2	30
Endosulfan I	8.1	U	161	180		ug/Kg	✱	112	68 - 135	2	30
Endosulfan I	8.1	U	161	170		ug/Kg	✱	106	68 - 135	2	30
Endosulfan II	8.1	U	161	188		ug/Kg	✱	117	64 - 130	1	30
Endosulfan II	8.1	U	161	185		ug/Kg	✱	115	64 - 130	1	30
Endosulfan sulfate	8.1	U	161	160		ug/Kg	✱	100	66 - 143	1	30
Endosulfan sulfate	8.1	U	161	159		ug/Kg	✱	99	66 - 143	1	30
Endrin	8.1	U	161	180		ug/Kg	✱	112	68 - 136	1	30
Endrin	8.1	U	161	176		ug/Kg	✱	109	68 - 136	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-251737-1 MSD

Matrix: Solid

Analysis Batch: 826733

Client Sample ID: 131_PE-17

Prep Type: Total/NA

Prep Batch: 826858

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin aldehyde	8.1	U	161	150		ug/Kg	☼	94	68 - 132	2	30
Endrin aldehyde	8.1	U	161	154		ug/Kg	☼	96	68 - 132	1	30
Endrin ketone	8.1	U	161	183		ug/Kg	☼	114	60 - 150	0	30
Endrin ketone	8.1	U	161	174		ug/Kg	☼	108	60 - 150	1	30
gamma-BHC (Lindane)	2.4	U	161	181		ug/Kg	☼	113	70 - 134	2	30
gamma-BHC (Lindane)	2.4	U	161	168		ug/Kg	☼	105	70 - 134	2	30
Heptachlor	8.1	U	161	184		ug/Kg	☼	115	69 - 134	1	30
Heptachlor	8.1	U	161	169		ug/Kg	☼	105	69 - 134	2	30
Heptachlor epoxide	8.1	U	161	178		ug/Kg	☼	111	70 - 135	2	30
Heptachlor epoxide	8.1	U	161	170		ug/Kg	☼	106	70 - 135	2	30
Methoxychlor	8.1	U	161	193		ug/Kg	☼	120	57 - 135	1	30
Methoxychlor	8.1	U	161	189		ug/Kg	☼	117	57 - 135	1	30
cis-Chlordane	8.1	U	161	178		ug/Kg	☼	111	70 - 136	2	30
cis-Chlordane	8.1	U	161	168		ug/Kg	☼	105	70 - 136	2	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
DCB Decachlorobiphenyl	85		10 - 150								
DCB Decachlorobiphenyl	91		10 - 150								
Tetrachloro-m-xylene	69		10 - 133								
Tetrachloro-m-xylene	67		10 - 133								

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-827063/1-A

Matrix: Solid

Analysis Batch: 827112

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827063

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1016	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1221	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1221	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1232	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1232	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1242	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1242	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1248	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1248	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1254	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1254	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1260	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1260	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor-1262	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor-1262	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1268	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Aroclor 1268	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/07/22 23:58	02/08/22 08:47	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-827063/1-A

Matrix: Solid

Analysis Batch: 827112

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827063

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	111		37 - 150	02/07/22 23:58	02/08/22 08:47	1
DCB Decachlorobiphenyl	114		37 - 150	02/07/22 23:58	02/08/22 08:47	1
Tetrachloro-m-xylene	101		54 - 150	02/07/22 23:58	02/08/22 08:47	1
Tetrachloro-m-xylene	108		54 - 150	02/07/22 23:58	02/08/22 08:47	1

Lab Sample ID: LCS 460-827063/2-A

Matrix: Solid

Analysis Batch: 827112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827063

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	323		ug/Kg		97	65 - 133
Aroclor 1016	333	348		ug/Kg		104	65 - 133
Aroclor 1260	333	342		ug/Kg		103	71 - 150
Aroclor 1260	333	381		ug/Kg		114	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	103		37 - 150
DCB Decachlorobiphenyl	110		37 - 150
Tetrachloro-m-xylene	93		54 - 150
Tetrachloro-m-xylene	102		54 - 150

Lab Sample ID: LCSD 460-827063/3-A

Matrix: Solid

Analysis Batch: 827112

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827063

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	333	321		ug/Kg		96	65 - 133	1	30
Aroclor 1016	333	355		ug/Kg		107	65 - 133	2	30
Aroclor 1260	333	352		ug/Kg		105	71 - 150	3	30
Aroclor 1260	333	383		ug/Kg		115	71 - 150	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	106		37 - 150
DCB Decachlorobiphenyl	111		37 - 150
Tetrachloro-m-xylene	93		54 - 150
Tetrachloro-m-xylene	103		54 - 150

Lab Sample ID: 240-162399-B-1-A MS

Matrix: Solid

Analysis Batch: 827112

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827063

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	72	U	358	335		ug/Kg	⊛	93	65 - 133
Aroclor 1016	72	U	358	349		ug/Kg	⊛	98	65 - 133
Aroclor 1260	72	U	358	351		ug/Kg	⊛	98	71 - 150
Aroclor 1260	72	U	358	383		ug/Kg	⊛	107	71 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 240-162399-B-1-A MS

Matrix: Solid

Analysis Batch: 827112

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827063

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	99		37 - 150
DCB Decachlorobiphenyl	103		37 - 150
Tetrachloro-m-xylene	88		54 - 150
Tetrachloro-m-xylene	92		54 - 150

Lab Sample ID: 240-162399-B-1-B MSD

Matrix: Solid

Analysis Batch: 827112

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 827063

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	72	U	359	315		ug/Kg	⊛	88	65 - 133	6	30
Aroclor 1016	72	U	359	331		ug/Kg	⊛	92	65 - 133	5	30
Aroclor 1260	72	U	359	342		ug/Kg	⊛	95	71 - 150	3	30
Aroclor 1260	72	U	359	364		ug/Kg	⊛	102	71 - 150	5	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
DCB Decachlorobiphenyl	95		37 - 150								
DCB Decachlorobiphenyl	100		37 - 150								
Tetrachloro-m-xylene	83		54 - 150								
Tetrachloro-m-xylene	92		54 - 150								

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-826555/1-A

Matrix: Solid

Analysis Batch: 826615

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826555

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/03/22 20:39	02/04/22 07:35	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/03/22 20:39	02/04/22 07:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	108		65 - 150				02/03/22 20:39	02/04/22 07:35	1
2,4-Dichlorophenylacetic acid	114		65 - 150				02/03/22 20:39	02/04/22 07:35	1

Lab Sample ID: LCS 460-826555/2-A

Matrix: Solid

Analysis Batch: 826615

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826555

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	41.7	46.7		ug/Kg		112	58 - 150
Silvex (2,4,5-TP)	41.7	56.0		ug/Kg		134	58 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	111		65 - 150				
2,4-Dichlorophenylacetic acid	120		65 - 150				

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 460-826555/3-A

Matrix: Solid

Analysis Batch: 826615

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826555

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	41.7	47.3		ug/Kg		114	58 - 150	1	30
Silvex (2,4,5-TP)	41.7	57.0		ug/Kg		137	58 - 150	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4-Dichlorophenylacetic acid	113		65 - 150
2,4-Dichlorophenylacetic acid	122		65 - 150

Method: 537 (Modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-222270/1-B

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 222270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.049	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
8:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.017	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
NEtFOSAA	0.20	U	0.20	0.022	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
NMeFOSAA	0.20	U	0.20	0.031	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorobutanesulfonic acid	0.40	U	0.40	0.36	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorobutanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorodecanesulfonic acid	0.20	U	0.20	0.021	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorodecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorododecanoic acid	0.20	U	0.20	0.023	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluoroheptanesulfonic acid	0.20	U	0.20	0.020	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluoroheptanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorohexanesulfonic acid	0.20	U	0.20	0.019	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorohexanoic acid	0.20	U	0.20	0.019	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorononanoic acid	0.20	U	0.20	0.023	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorooctanesulfonamide	0.20	U	0.20	0.021	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorooctanesulfonic acid	0.20	U	0.20	0.035	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorooctanoic acid	0.20	U	0.20	0.022	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluoropentanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorotetradecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluorotridecanoic acid	0.20	U	0.20	0.021	ug/Kg		02/09/22 10:43	02/11/22 00:03	1
Perfluoroundecanoic acid	0.20	U	0.20	0.056	ug/Kg		02/09/22 10:43	02/11/22 00:03	1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	93		10 - 200	02/09/22 10:43	02/11/22 00:03	1
M2-8:2 FTS	80		15 - 200	02/09/22 10:43	02/11/22 00:03	1
13C2 PFTeDA	92		10 - 169	02/09/22 10:43	02/11/22 00:03	1
13C3 PFBS	96		27 - 179	02/09/22 10:43	02/11/22 00:03	1
13C4 PFBA	99		28 - 153	02/09/22 10:43	02/11/22 00:03	1
13C4 PFHpA	100		10 - 178	02/09/22 10:43	02/11/22 00:03	1
13C5 PFPeA	92		24 - 161	02/09/22 10:43	02/11/22 00:03	1
13C8 PFOA	100		26 - 159	02/09/22 10:43	02/11/22 00:03	1
13C8 PFOS	102		41 - 154	02/09/22 10:43	02/11/22 00:03	1
d3-NMeFOSAA	66		10 - 178	02/09/22 10:43	02/11/22 00:03	1
d5-NEtFOSAA	78		10 - 193	02/09/22 10:43	02/11/22 00:03	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-222270/1-B

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 222270

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	101		24 - 171	02/09/22 10:43	02/11/22 00:03	1
13C5 PFHxA	101		10 - 174	02/09/22 10:43	02/11/22 00:03	1
13C6 PFDA	97		26 - 161	02/09/22 10:43	02/11/22 00:03	1
13C7 PFUnA	99		12 - 173	02/09/22 10:43	02/11/22 00:03	1
13C8 FOSA	83		14 - 163	02/09/22 10:43	02/11/22 00:03	1
13C2-PFDoDA	91		11 - 166	02/09/22 10:43	02/11/22 00:03	1
13C9 PFNA	104		26 - 165	02/09/22 10:43	02/11/22 00:03	1

Lab Sample ID: LCS 410-222270/2-B

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 222270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
6:2 Fluorotelomer sulfonic acid	2.96	3.289		ug/Kg		111	59 - 135
8:2 Fluorotelomer sulfonic acid	2.99	3.416		ug/Kg		114	55 - 133
NEtFOSAA	3.13	3.120		ug/Kg		100	57 - 127
NMeFOSAA	3.13	3.142		ug/Kg		101	60 - 134
Perfluorobutanesulfonic acid	2.77	2.618		ug/Kg		95	54 - 130
Perfluorobutanoic acid	3.13	3.345		ug/Kg		107	60 - 128
Perfluorodecanesulfonic acid	3.01	2.791		ug/Kg		93	57 - 132
Perfluorodecanoic acid	3.13	2.868		ug/Kg		92	56 - 133
Perfluorododecanoic acid	3.13	3.158		ug/Kg		101	60 - 135
Perfluoroheptanesulfonic acid	2.98	2.774		ug/Kg		93	59 - 132
Perfluoroheptanoic acid	3.13	3.169		ug/Kg		101	59 - 137
Perfluorohexanesulfonic acid	2.85	2.742		ug/Kg		96	59 - 129
Perfluorohexanoic acid	3.13	3.259		ug/Kg		104	59 - 132
Perfluorononanoic acid	3.13	3.230		ug/Kg		103	61 - 134
Perfluorooctanesulfonamide	3.13	3.502		ug/Kg		112	47 - 149
Perfluorooctanesulfonic acid	2.89	2.908		ug/Kg		101	61 - 126
Perfluorooctanoic acid	3.13	3.104		ug/Kg		99	59 - 131
Perfluoropentanoic acid	3.13	3.591		ug/Kg		115	58 - 134
Perfluorotetradecanoic acid	3.13	3.085		ug/Kg		99	62 - 134
Perfluorotridecanoic acid	3.13	3.293		ug/Kg		105	53 - 143
Perfluoroundecanoic acid	3.13	3.012		ug/Kg		96	60 - 134

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	84		10 - 200
M2-8:2 FTS	79		15 - 200
13C2 PFTeDA	84		10 - 169
13C3 PFBS	93		27 - 179
13C4 PFBA	88		28 - 153
13C4 PFHpA	87		10 - 178
13C5 PFPeA	84		24 - 161
13C8 PFOA	87		26 - 159
13C8 PFOS	90		41 - 154
d3-NMeFOSAA	60		10 - 178
d5-NEtFOSAA	65		10 - 193
13C3 PFHxS	92		24 - 171
13C5 PFHxA	86		10 - 174

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-222270/2-B

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 222270

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
13C6 PFDA	91		26 - 161
13C7 PFUnA	92		12 - 173
13C8 FOSA	73		14 - 163
13C2-PFDoDA	83		11 - 166
13C9 PFNA	94		26 - 165

Lab Sample ID: 460-251533-A-24-E MS

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 222270

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>
6:2 Fluorotelomer sulfonic acid	0.23	U	3.47	3.806		ug/Kg	✱	110	59 - 135
8:2 Fluorotelomer sulfonic acid	0.23	U	3.50	4.198		ug/Kg	✱	120	55 - 133
NEtFOSAA	0.23	U	3.66	3.751		ug/Kg	✱	103	57 - 127
NMeFOSAA	0.23	U	3.66	3.736		ug/Kg	✱	102	60 - 134
Perfluorobutanesulfonic acid	0.47	U	3.24	3.059		ug/Kg	✱	94	54 - 130
Perfluorobutanoic acid	0.039	J	3.66	3.938		ug/Kg	✱	107	60 - 128
Perfluorodecanesulfonic acid	0.23	U	3.53	3.328		ug/Kg	✱	94	57 - 132
Perfluorodecanoic acid	0.080	J	3.66	3.499		ug/Kg	✱	93	56 - 133
Perfluorododecanoic acid	0.23	U	3.66	3.310		ug/Kg	✱	90	60 - 135
Perfluoroheptanesulfonic acid	0.23	U	3.48	3.240		ug/Kg	✱	93	59 - 132
Perfluoroheptanoic acid	0.051	J	3.66	3.765		ug/Kg	✱	102	59 - 137
Perfluorohexanesulfonic acid	0.23	U	3.34	3.220		ug/Kg	✱	96	59 - 129
Perfluorohexanoic acid	0.042	J	3.66	3.737		ug/Kg	✱	101	59 - 132
Perfluorononanoic acid	0.25		3.66	3.841		ug/Kg	✱	98	61 - 134
Perfluorooctanesulfonamide	0.23	U	3.66	3.846		ug/Kg	✱	105	47 - 149
Perfluorooctanesulfonic acid	0.25		3.39	3.438		ug/Kg	✱	94	61 - 126
Perfluorooctanoic acid	0.18	J	3.66	3.667		ug/Kg	✱	95	59 - 131
Perfluoropentanoic acid	0.23	U	3.66	4.019		ug/Kg	✱	110	58 - 134
Perfluorotetradecanoic acid	0.23	U	3.66	3.446		ug/Kg	✱	94	62 - 134
Perfluorotridecanoic acid	0.043	J	3.66	3.518		ug/Kg	✱	95	53 - 143
Perfluoroundecanoic acid	0.31		3.66	3.966		ug/Kg	✱	100	60 - 134

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
M2-6:2 FTS	104		10 - 200
M2-8:2 FTS	103		15 - 200
13C2 PFTeDA	100		10 - 169
13C3 PFBS	100		27 - 179
13C4 PFBA	76		28 - 153
13C4 PFHpA	78		10 - 178
13C5 PFPeA	73		24 - 161
13C8 PFOA	80		26 - 159
13C8 PFOS	98		41 - 154
d3-NMeFOSAA	49		10 - 178
d5-NEtFOSAA	66		10 - 193
13C3 PFHxS	99		24 - 171
13C5 PFHxA	76		10 - 174
13C6 PFDA	90		26 - 161
13C7 PFUnA	87		12 - 173

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-251533-A-24-E MS

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 222270

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C8 FOSA	62		14 - 163
13C2-PFDoDA	105		11 - 166
13C9 PFNA	85		26 - 165

Lab Sample ID: 460-251533-A-24-F MSD

Matrix: Solid

Analysis Batch: 222628

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 222270

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
6:2 Fluorotelomer sulfonic acid	0.23	U	3.46	3.850		ug/Kg	⊛	111	59 - 135	1	30
8:2 Fluorotelomer sulfonic acid	0.23	U	3.50	4.006		ug/Kg	⊛	114	55 - 133	5	30
NEtFOSAA	0.23	U	3.65	3.402		ug/Kg	⊛	93	57 - 127	10	30
NMeFOSAA	0.23	U	3.65	3.748		ug/Kg	⊛	103	60 - 134	0	30
Perfluorobutanesulfonic acid	0.47	U	3.23	3.256		ug/Kg	⊛	101	54 - 130	6	30
Perfluorobutanoic acid	0.039	J	3.65	3.951		ug/Kg	⊛	107	60 - 128	0	30
Perfluorodecanesulfonic acid	0.23	U	3.52	3.553		ug/Kg	⊛	101	57 - 132	7	30
Perfluorodecanoic acid	0.080	J	3.65	3.434		ug/Kg	⊛	92	56 - 133	2	30
Perfluorododecanoic acid	0.23	U	3.65	3.399		ug/Kg	⊛	93	60 - 135	3	30
Perfluoroheptanesulfonic acid	0.23	U	3.48	3.377		ug/Kg	⊛	97	59 - 132	4	30
Perfluoroheptanoic acid	0.051	J	3.65	3.491		ug/Kg	⊛	94	59 - 137	8	30
Perfluorohexanesulfonic acid	0.23	U	3.33	3.136		ug/Kg	⊛	94	59 - 129	3	30
Perfluorohexanoic acid	0.042	J	3.65	3.760		ug/Kg	⊛	102	59 - 132	1	30
Perfluorononanoic acid	0.25		3.65	3.982		ug/Kg	⊛	102	61 - 134	4	30
Perfluorooctanesulfonamide	0.23	U	3.65	3.730		ug/Kg	⊛	102	47 - 149	3	30
Perfluorooctanesulfonic acid	0.25		3.38	3.424		ug/Kg	⊛	94	61 - 126	0	30
Perfluorooctanoic acid	0.18	J	3.65	3.975		ug/Kg	⊛	104	59 - 131	8	30
Perfluoropentanoic acid	0.23	U	3.65	4.148		ug/Kg	⊛	113	58 - 134	3	30
Perfluorotetradecanoic acid	0.23	U	3.65	3.614		ug/Kg	⊛	99	62 - 134	5	30
Perfluorotridecanoic acid	0.043	J	3.65	3.895		ug/Kg	⊛	105	53 - 143	10	30
Perfluoroundecanoic acid	0.31		3.65	3.876		ug/Kg	⊛	98	60 - 134	2	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
M2-6:2 FTS	94		10 - 200
M2-8:2 FTS	94		15 - 200
13C2 PFTeDA	92		10 - 169
13C3 PFBS	93		27 - 179
13C4 PFBA	70		28 - 153
13C4 PFHpA	77		10 - 178
13C5 PFPeA	69		24 - 161
13C8 PFOA	75		26 - 159
13C8 PFOS	93		41 - 154
d3-NMeFOSAA	46		10 - 178
d5-NEtFOSAA	62		10 - 193
13C3 PFHxS	94		24 - 171
13C5 PFHxA	72		10 - 174
13C6 PFDA	86		26 - 161
13C7 PFUnA	86		12 - 173
13C8 FOSA	61		14 - 163
13C2-PFDoDA	94		11 - 166

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-251533-A-24-F MSD
Matrix: Solid
Analysis Batch: 222628

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 222270

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C9 PFNA	81		26 - 165

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-827916/1-A
Matrix: Solid
Analysis Batch: 828139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 827916

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Barium	2.0	U	2.0	0.15	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Chromium	2.0	U	2.0	0.27	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Copper	2.0	U	2.0	0.37	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Manganese	4.0	U	4.0	0.40	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Nickel	2.0	U	2.0	0.47	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Lead	0.60	U	0.60	0.20	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Selenium	1.3	U	1.3	0.13	mg/Kg		02/12/22 09:59	02/14/22 10:36	1
Zinc	8.0	U	8.0	3.1	mg/Kg		02/12/22 09:59	02/14/22 10:36	1

Lab Sample ID: LCSSRM 460-827916/2-A ^5
Matrix: Solid
Analysis Batch: 828139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 827916

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	20.90		mg/Kg		62.2	48.2 - 73.5
Arsenic	140	151.7		mg/Kg		108.3	82.9 - 117.9
Barium	202	211.8		mg/Kg		104.9	81.2 - 118.3
Beryllium	42.6	44.91		mg/Kg		105.4	81.0 - 119.0
Cadmium	97.9	103.5		mg/Kg		105.7	80.0 - 119.5
Chromium	60.4	63.34		mg/Kg		104.9	80.3 - 119.7
Copper	122	131.2		mg/Kg		107.5	82.8 - 117.2
Manganese	457	492.8		mg/Kg		107.8	79.6 - 120.6
Nickel	151	161.3		mg/Kg		106.8	79.5 - 121.2
Lead	56.7	60.69		mg/Kg		107.0	82.9 - 116.9
Selenium	35.5	38.90		mg/Kg		109.6	77.5 - 122.3
Zinc	186	193.2		mg/Kg		103.8	79.0 - 121.0

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-250873-F-32-F MS

Matrix: Solid

Analysis Batch: 828139

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827916

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.1	U	5.63	5.33		mg/Kg	⊛	95	75 - 125
Arsenic	2.4		11.3	12.83		mg/Kg	⊛	92	75 - 125
Barium	21.6		11.3	36.59	N	mg/Kg	⊛	133	75 - 125
Beryllium	0.25	J	5.63	5.63		mg/Kg	⊛	96	75 - 125
Cadmium	1.1	U	5.63	5.44		mg/Kg	⊛	97	75 - 125
Chromium	7.3		11.3	19.76		mg/Kg	⊛	111	75 - 125
Copper	8.7		11.3	18.99		mg/Kg	⊛	91	75 - 125
Manganese	87.6		56.3	143.4		mg/Kg	⊛	99	75 - 125
Nickel	4.6		11.3	16.00		mg/Kg	⊛	101	75 - 125
Lead	22.1		5.63	27.66		mg/Kg	⊛	98	75 - 125
Selenium	0.22	J	11.3	10.72		mg/Kg	⊛	93	75 - 125
Zinc	31.7		56.3	86.33		mg/Kg	⊛	97	75 - 125

Lab Sample ID: 460-250873-F-32-E DU

Matrix: Solid

Analysis Batch: 828139

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 827916

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.1	U	1.1	U	mg/Kg	⊛	NC	20
Arsenic	2.4		2.50		mg/Kg	⊛	3	20
Barium	21.6		21.35		mg/Kg	⊛	1	20
Beryllium	0.25	J	0.233	J	mg/Kg	⊛	7	20
Cadmium	1.1	U	1.1	U	mg/Kg	⊛	NC	20
Chromium	7.3		7.23		mg/Kg	⊛	0.6	20
Copper	8.7		8.43		mg/Kg	⊛	3	20
Manganese	87.6		94.50		mg/Kg	⊛	8	20
Nickel	4.6		4.62		mg/Kg	⊛	1	20
Lead	22.1		21.54		mg/Kg	⊛	3	20
Selenium	0.22	J	0.245	J	mg/Kg	⊛	12	20
Zinc	31.7		31.52		mg/Kg	⊛	0.6	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-826585/10-A

Matrix: Solid

Analysis Batch: 826664

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826585

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		02/04/22 03:11	02/04/22 07:05	1

Lab Sample ID: LCSSRM 460-826585/11-A ^40

Matrix: Solid

Analysis Batch: 826664

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826585

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	17.11		mg/Kg		103.7	74.5 - 124.8

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 460-251837-A-1-C MS

Matrix: Solid

Analysis Batch: 826664

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 826585

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.022		0.0902	0.119		mg/Kg	✱	107	80 - 120

Lab Sample ID: 460-251837-A-1-B DU

Matrix: Solid

Analysis Batch: 826664

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 826585

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.022		0.0257		mg/Kg	✱	16	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-827138/1-A

Matrix: Solid

Analysis Batch: 827343

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827138

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		02/08/22 10:02	02/09/22 10:40	1

Lab Sample ID: LCSi 460-827138/3-A

Matrix: Solid

Analysis Batch: 827343

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827138

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	679.6		mg/Kg		96	80 - 120

Lab Sample ID: LCSSRM 460-827138/2-A

Matrix: Solid

Analysis Batch: 827343

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827138

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	15.9	15.87		mg/Kg		100	84.1 - 114.4

Lab Sample ID: 460-251835-F-1-F MSS

Matrix: Solid

Analysis Batch: 827343

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827138

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.2	U	44.2	37.25		mg/Kg	✱	84	75 - 125

Lab Sample ID: 460-251835-F-1-G MSI

Matrix: Solid

Analysis Batch: 827343

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827138

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.2	U	783	765.1		mg/Kg	✱	98	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-251835-F-1-E DU
Matrix: Solid
Analysis Batch: 827343

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 827138

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.2	U	2.2	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MRL 460-826818/1-A
Matrix: Solid
Analysis Batch: 826925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 826818

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0110		mg/L		110	50 - 150

Lab Sample ID: MB 460-826870/1-A
Matrix: Solid
Analysis Batch: 826925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 826870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		02/06/22 06:53	02/06/22 15:37	1

Lab Sample ID: LCSSRM 460-826870/2-A ^20
Matrix: Solid
Analysis Batch: 826925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 826870

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	115	93.12		mg/Kg		81.0	25.6 - 125.2

Lab Sample ID: 460-251739-A-6-E MS
Matrix: Solid
Analysis Batch: 826925

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 826870

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.25	U	5.02	2.10		mg/Kg	✱	42	11 - 108

Lab Sample ID: 460-251739-A-6-F MSD
Matrix: Solid
Analysis Batch: 826925

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 826870

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.25	U	5.02	5.12	N	mg/Kg	✱	102	11 - 108	84	40

Method: Moisture - Percent Moisture

Lab Sample ID: 460-251739-F-1 DU
Matrix: Solid
Analysis Batch: 826601

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	9.8		10.3		%		5	20
Percent Solids	90.2		89.7		%		0.6	20

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

GC/MS VOA

Analysis Batch: 826605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-2	132_TB-11	Total/NA	Water	8260D	
MB 460-826605/8	Method Blank	Total/NA	Water	8260D	
LCS 460-826605/4	Lab Control Sample	Total/NA	Water	8260D	
460-251761-B-2 MS	Matrix Spike	Total/NA	Water	8260D	
460-251761-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Prep Batch: 826751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	5035	

Analysis Batch: 827019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	8260D	826751
MB 460-827019/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-827019/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-827019/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 826666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	3546	
MB 460-826666/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-826666/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-826666/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-251303-A-1-D MS	Matrix Spike	Total/NA	Solid	3546	
460-251303-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 826723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	8270E	826666
MB 460-826666/1-A	Method Blank	Total/NA	Solid	8270E	826666
LCS 460-826666/2-A	Lab Control Sample	Total/NA	Solid	8270E	826666
LCSD 460-826666/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	826666

Analysis Batch: 826847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251303-A-1-D MS	Matrix Spike	Total/NA	Solid	8270E	826666
460-251303-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	826666

GC Semi VOA

Prep Batch: 826555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	8151A	
MB 460-826555/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-826555/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-826555/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 826615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-826555/1-A	Method Blank	Total/NA	Solid	8151A	826555

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

GC Semi VOA (Continued)

Analysis Batch: 826615 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-826555/2-A	Lab Control Sample	Total/NA	Solid	8151A	826555
LCSD 460-826555/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	826555

Analysis Batch: 826733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	8081B	826858
MB 460-826858/1-A	Method Blank	Total/NA	Solid	8081B	826858
LCS 460-826858/2-A	Lab Control Sample	Total/NA	Solid	8081B	826858
LCSD 460-826858/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	826858
460-251737-1 MS	131_PE-17	Total/NA	Solid	8081B	826858
460-251737-1 MSD	131_PE-17	Total/NA	Solid	8081B	826858

Prep Batch: 826858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	3546	
MB 460-826858/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-826858/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-826858/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-251737-1 MS	131_PE-17	Total/NA	Solid	3546	
460-251737-1 MSD	131_PE-17	Total/NA	Solid	3546	

Analysis Batch: 826888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	8151A	826555

Prep Batch: 827063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	3546	
MB 460-827063/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-827063/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-827063/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
240-162399-B-1-A MS	Matrix Spike	Total/NA	Solid	3546	
240-162399-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 827112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	8082A	827063
MB 460-827063/1-A	Method Blank	Total/NA	Solid	8082A	827063
LCS 460-827063/2-A	Lab Control Sample	Total/NA	Solid	8082A	827063
LCSD 460-827063/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	827063
240-162399-B-1-A MS	Matrix Spike	Total/NA	Solid	8082A	827063
240-162399-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	827063

LCMS

Prep Batch: 222270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	SHAKE	
MB 410-222270/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-222270/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-251533-A-24-E MS	Matrix Spike	Total/NA	Solid	SHAKE	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

LCMS (Continued)

Prep Batch: 222270 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251533-A-24-F MSD	Matrix Spike Duplicate	Total/NA	Solid	SHAKE	

Cleanup Batch: 222511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	Extract Aliquot	222270
MB 410-222270/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	222270
LCS 410-222270/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	222270
460-251533-A-24-E MS	Matrix Spike	Total/NA	Solid	Extract Aliquot	222270
460-251533-A-24-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Extract Aliquot	222270

Analysis Batch: 222628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	537 (Modified)	222511
MB 410-222270/1-B	Method Blank	Total/NA	Solid	537 (Modified)	222511
LCS 410-222270/2-B	Lab Control Sample	Total/NA	Solid	537 (Modified)	222511
460-251533-A-24-E MS	Matrix Spike	Total/NA	Solid	537 (Modified)	222511
460-251533-A-24-F MSD	Matrix Spike Duplicate	Total/NA	Solid	537 (Modified)	222511

Metals

Prep Batch: 826585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	7471B	
MB 460-826585/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-826585/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	
460-251837-A-1-C MS	Matrix Spike	Total/NA	Solid	7471B	
460-251837-A-1-B DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 826664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	7471B	826585
MB 460-826585/10-A	Method Blank	Total/NA	Solid	7471B	826585
LCSSRM 460-826585/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	826585
460-251837-A-1-C MS	Matrix Spike	Total/NA	Solid	7471B	826585
460-251837-A-1-B DU	Duplicate	Total/NA	Solid	7471B	826585

Prep Batch: 827916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	3050B	
MB 460-827916/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-827916/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-250873-F-32-F MS	Matrix Spike	Total/NA	Solid	3050B	
460-250873-F-32-E DU	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 828139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	6020B	827916
MB 460-827916/1-A	Method Blank	Total/NA	Solid	6020B	827916
LCSSRM 460-827916/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	827916
460-250873-F-32-F MS	Matrix Spike	Total/NA	Solid	6020B	827916
460-250873-F-32-E DU	Duplicate	Total/NA	Solid	6020B	827916

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

General Chemistry

Analysis Batch: 826601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	Moisture	
460-251753-E-17 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-251753-E-17 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-251739-F-1 DU	Duplicate	Total/NA	Solid	Moisture	

Prep Batch: 826818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-826818/1-A	Lab Control Sample	Total/NA	Solid	9012B	

Prep Batch: 826870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	9012B	
MB 460-826870/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-826870/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-251739-A-6-E MS	Matrix Spike	Total/NA	Solid	9012B	
460-251739-A-6-F MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	

Analysis Batch: 826925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	9012B	826870
MB 460-826870/1-A	Method Blank	Total/NA	Solid	9012B	826870
LCSSRM 460-826870/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	826870
MRL 460-826818/1-A	Lab Control Sample	Total/NA	Solid	9012B	826818
460-251739-A-6-E MS	Matrix Spike	Total/NA	Solid	9012B	826870
460-251739-A-6-F MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	826870

Analysis Batch: 826929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	7196A	

Prep Batch: 827138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	3060A	
MB 460-827138/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-827138/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-827138/2-A	Lab Control Sample	Total/NA	Solid	3060A	
460-251835-F-1-F MSS	Matrix Spike	Total/NA	Solid	3060A	
460-251835-F-1-G MSI	Matrix Spike	Total/NA	Solid	3060A	
460-251835-F-1-E DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 827343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-251737-1	131_PE-17	Total/NA	Solid	7196A	827138
MB 460-827138/1-A	Method Blank	Total/NA	Solid	7196A	827138
LCSI 460-827138/3-A	Lab Control Sample	Total/NA	Solid	7196A	827138
LCSSRM 460-827138/2-A	Lab Control Sample	Total/NA	Solid	7196A	827138
460-251835-F-1-F MSS	Matrix Spike	Total/NA	Solid	7196A	827138
460-251835-F-1-G MSI	Matrix Spike	Total/NA	Solid	7196A	827138
460-251835-F-1-E DU	Duplicate	Total/NA	Solid	7196A	827138

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Client Sample ID: 131_PE-17

Lab Sample ID: 460-251737-1

Date Collected: 02/02/22 08:30

Matrix: Solid

Date Received: 02/02/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	826929	02/14/22 16:00	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	826601	02/04/22 03:32	MIE	TAL EDI

Client Sample ID: 131_PE-17

Lab Sample ID: 460-251737-1

Date Collected: 02/02/22 08:30

Matrix: Solid

Date Received: 02/02/22 18:00

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			826751	02/04/22 16:07	JJC	TAL EDI
Total/NA	Analysis	8260D		1	827019	02/07/22 20:57	AAT	TAL EDI
Total/NA	Prep	3546			826666	02/04/22 10:21	BJB	TAL EDI
Total/NA	Analysis	8270E		1	826723	02/04/22 22:25	YAH	TAL EDI
Total/NA	Prep	3546			826858	02/05/22 19:04	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	826733	02/06/22 19:38	FAM	TAL EDI
Total/NA	Prep	3546			827063	02/07/22 23:58	AFR	TAL EDI
Total/NA	Analysis	8082A		1	827112	02/08/22 09:41	JHP	TAL EDI
Total/NA	Prep	8151A			826555	02/04/22 20:38	AFR	TAL EDI
Total/NA	Analysis	8151A		1	826888	02/06/22 10:51	SAK	TAL EDI
Total/NA	Prep	SHAKE			222270	02/09/22 10:43	D5VP	ELLE
Total/NA	Cleanup	Extract Aliquot			222511	02/09/22 20:09	D5VP	ELLE
Total/NA	Analysis	537 (Modified)		1	222628	02/11/22 04:40	I5JH	ELLE
Total/NA	Prep	3050B			827916	02/12/22 09:59	SXC	TAL EDI
Total/NA	Analysis	6020B		1	828139	02/14/22 15:30	MDC	TAL EDI
Total/NA	Prep	7471B			826585	02/04/22 03:11	TJS	TAL EDI
Total/NA	Analysis	7471B		1	826664	02/04/22 07:33	TJS	TAL EDI
Total/NA	Prep	3060A			827138	02/08/22 10:02	IAA	TAL EDI
Total/NA	Analysis	7196A		1	827343	02/09/22 12:20	RAK	TAL EDI
Total/NA	Prep	9012B			826870	02/06/22 06:53	VBG	TAL EDI
Total/NA	Analysis	9012B		1	826925	02/06/22 15:59	VBG	TAL EDI

Client Sample ID: 132_TB-11

Lab Sample ID: 460-251737-2

Date Collected: 02/02/22 08:30

Matrix: Water

Date Received: 02/02/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	826605	02/04/22 09:26	CJM	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22 *
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-22 *
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22 *
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-22 *
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-22 *
Oklahoma	NELAP	R-205	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-22 *
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	02-28-22
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 (Modified)	Fluorinated Alkyl Substances	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-251737-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-251737-1	131_PE-17	Solid	02/02/22 08:30	02/02/22 18:00
460-251737-2	132_TB-11	Water	02/02/22 08:30	02/02/22 18:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

05/787

IR Gun #

10

Cooler Temperatures

BANK		CUMULATED		BANK		CUMULATED	
Cooler #1:	320	210		Cooler #4:	0	0	
Cooler #2:	0	0		Cooler #5:	0	0	
Cooler #3:	0	0		Cooler #6:	0	0	
				Cooler #7:	0	0	
				Cooler #8:	0	0	
				Cooler #9:	0	0	

Nitrate	*	EPH or

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.: _____

Volume of Preservative used (ml): _____

Lot # of Preservatives): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

EDS-WI-038, Rev 4.1
10/22/2019

Initials: h.a. el

Date: 2/2/22

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-251737-1

Login Number: 251737

List Number: 1

Creator: Narinkhum, Nudjarin 1

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-251737-1

Login Number: 251737

List Number: 2

Creator: Leakway, Christian

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 02/04/22 10:34 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

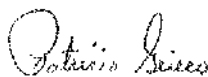
Laboratory Job ID: 460-252106-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Amanda Forsburg



Authorized for release by:
3/8/2022 3:55:26 PM

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



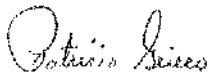
Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
3/8/2022 3:55:26 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	10
Client Sample Results	12
Surrogate Summary	21
Isotope Dilution Summary	23
QC Sample Results	24
QC Association Summary	52
Lab Chronicle	57
Certification Summary	59
Method Summary	61
Sample Summary	62
Chain of Custody	63
Receipt Checklists	66



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Job ID: 460-252106-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-252106-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 02/08/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 02/09/2022 and analyzed on 02/10/2022.

The continuing calibration verification (CCV) analyzed in batch 460-827460 was outside the method criteria for the following analyte: tert-Butylbenzene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 135_TB-12 (460-252106-3) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 02/10/2022.

tert-Butylbenzene failed the recovery criteria low for LCS 460-827460/4. 1,4-Dioxane failed the recovery criteria high. Refer to the QC report for details.

tert-Butylbenzene failed the recovery criteria low for the MS of sample 460-252110-5 in batch 460-827460.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Job ID: 460-252106-1 (Continued)

Laboratory: Eurofins Edison (Continued)

tert-Butylbenzene failed the recovery criteria low for the MSD of sample 460-252110-5 in batch 460-827460. 1,4-Dioxane exceeded the RPD limit.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 02/10/2022 and analyzed on 02/11/2022.

No difficulties were encountered during the semivolatiles analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 02/12/2022 and analyzed on 02/13/2022.

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 02/12/2022 and analyzed on 02/13/2022.

Tetrachloro-m-xylene failed the surrogate recovery criteria low for 460-251689-A-1-K MSD. Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 02/12/2022 and analyzed on 02/13/2022.

The continuing calibration verification (CCV) associated with batch 460-827986 recovered above the upper control limit for many analytes>. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Silvex (2,4,5-TP) exceeded the RPD limit for the MSD of sample 133_PE-11MSD (460-252106-1) in batch 460-827986.

Refer to the QC report for details.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Job ID: 460-252106-1 (Continued)

Laboratory: Eurofins Edison (Continued)

accordance with PFC-IDA - 537 (modified). The samples were prepared on 02/17/2022 and analyzed on 02/19/2022.

No difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared and analyzed on 02/20/2022.

Copper, Lead and Manganese failed the recovery criteria high for the MS of sample 460-252052-1 in batch 460-829294.

Refer to the QC report for details.

Samples 133_PE-11 (460-252106-1)[5X] and 134_PE-20 (460-252106-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 02/11/2022 and analyzed on 02/11/2022 and 02/12/2022.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 02/15/2022.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 02/13/2022.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 02/12/2022.

Cyanide, Total failed the recovery criteria high for the MS of sample 460-252086-1 in batch 460-827930.

Cyanide, Total failed the recovery criteria high for the MSD of sample 460-252086-1 in batch 460-827930.

Refer to the QC report for details.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Job ID: 460-252106-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 133_PE-11 (460-252106-1) and 134_PE-20 (460-252106-2) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 02/12/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 133_PE-11

Lab Sample ID: 460-252106-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.46	J	0.80	0.46	ug/Kg	1	✱	8260D	Total/NA
4,4'-DDD	1.9	J	7.7	1.3	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	3.3	J	7.7	1.4	ug/Kg	1	✱	8081B	Total/NA
Perfluorohexanoic acid	0.022	J	0.23	0.022	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorononanoic acid	0.052	J	0.23	0.026	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorooctanesulfonic acid	0.45		0.23	0.040	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorooctanoic acid	0.11	J	0.23	0.025	ug/Kg	1	✱	537 (Modified)	Total/NA
Arsenic	2.4	J	5.6	0.57	mg/Kg	5	✱	6020B	Total/NA
Barium	22.8		11.1	0.81	mg/Kg	5	✱	6020B	Total/NA
Beryllium	0.38	J	2.2	0.32	mg/Kg	5	✱	6020B	Total/NA
Chromium	11.6		11.1	1.5	mg/Kg	5	✱	6020B	Total/NA
Copper	16.6		11.1	2.0	mg/Kg	5	✱	6020B	Total/NA
Manganese	216		22.2	2.2	mg/Kg	5	✱	6020B	Total/NA
Nickel	9.5	J	11.1	2.6	mg/Kg	5	✱	6020B	Total/NA
Lead	8.9		3.3	1.1	mg/Kg	5	✱	6020B	Total/NA
Zinc	26.2	J	44.5	17.0	mg/Kg	5	✱	6020B	Total/NA
Mercury	0.010	J	0.018	0.0085	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.6		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 134_PE-20

Lab Sample ID: 460-252106-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenzofuran	5.7	J	360	5.0	ug/Kg	1	✱	8270E	Total/NA
Fluorene	9.0	J	360	4.8	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	110	J	360	6.3	ug/Kg	1	✱	8270E	Total/NA
Anthracene	24	J	360	11	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	160	J	360	12	ug/Kg	1	✱	8270E	Total/NA
Pyrene	140	J	360	8.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	87		36	12	ug/Kg	1	✱	8270E	Total/NA
Chrysene	82	J	360	6.0	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	83		36	9.2	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	32	J	36	7.0	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	72		36	9.5	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	48		36	14	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	39	J	360	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	11		7.2	1.2	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDE	4.2	J	7.2	0.85	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	8.8		7.2	1.3	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.53		0.21	0.037	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorooctanoic acid	0.16	J	0.21	0.024	ug/Kg	1	✱	537 (Modified)	Total/NA
Arsenic	1.8	J	5.2	0.53	mg/Kg	5	✱	6020B	Total/NA
Barium	44.3		10.3	0.75	mg/Kg	5	✱	6020B	Total/NA
Beryllium	0.30	J	2.1	0.29	mg/Kg	5	✱	6020B	Total/NA
Chromium	11.7		10.3	1.4	mg/Kg	5	✱	6020B	Total/NA
Copper	14.7		10.3	1.9	mg/Kg	5	✱	6020B	Total/NA
Manganese	179		20.6	2.1	mg/Kg	5	✱	6020B	Total/NA
Nickel	11.2		10.3	2.4	mg/Kg	5	✱	6020B	Total/NA
Lead	52.2		3.1	1.0	mg/Kg	5	✱	6020B	Total/NA
Zinc	46.7		41.2	15.7	mg/Kg	5	✱	6020B	Total/NA
Mercury	0.077		0.017	0.0081	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.7		2.0	2.0	mg/Kg	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 135_TB-12

Lab Sample ID: 460-252106-3

☐ No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 133_PE-11

Lab Sample ID: 460-252106-1

Date Collected: 02/07/22 15:10

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 86.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.40	U	0.40	0.094	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,1-Dichloroethane	0.40	U	0.40	0.083	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,1-Dichloroethene	0.40	U	0.40	0.090	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,2,4-Trimethylbenzene	0.40	U	0.40	0.099	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,2-Dichlorobenzene	0.40	U	0.40	0.15	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,2-Dichloroethane	0.40	U	0.40	0.12	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,3,5-Trimethylbenzene	0.40	U	0.40	0.13	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,3-Dichlorobenzene	0.40	U	0.40	0.15	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,4-Dichlorobenzene	0.40	U	0.40	0.090	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
1,4-Dioxane	40	U	40	3.7	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
2-Butanone (MEK)	2.0	U	2.0	0.15	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Acetone	2.4	U	2.4	2.3	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Benzene	0.40	U	0.40	0.10	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Carbon tetrachloride	0.40	U	0.40	0.16	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Chlorobenzene	0.40	U	0.40	0.071	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Chloroform	0.40	U	0.40	0.39	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
cis-1,2-Dichloroethene	0.40	U	0.40	0.14	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Ethylbenzene	0.40	U	0.40	0.080	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Methyl tert-butyl ether	0.40	U	0.40	0.21	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Methylene Chloride	0.46	J	0.80	0.46	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
n-Butylbenzene	0.40	U	0.40	0.12	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
N-Propylbenzene	0.40	U	0.40	0.070	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
sec-Butylbenzene	0.40	U	0.40	0.12	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
tert-Butylbenzene	0.40	U	0.40	0.11	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Tetrachloroethene	0.40	U	0.40	0.12	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Toluene	0.40	U	0.40	0.094	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
trans-1,2-Dichloroethene	0.40	U	0.40	0.099	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Trichloroethene	0.40	U	0.40	0.13	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Vinyl chloride	0.40	U	0.40	0.22	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1
Xylenes, Total	0.80	U	0.80	0.26	ug/Kg	☆	02/09/22 17:57	02/10/22 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 145	02/09/22 17:57	02/10/22 18:09	1
4-Bromofluorobenzene	105		70 - 139	02/09/22 17:57	02/10/22 18:09	1
Dibromofluoromethane (Surr)	107		48 - 150	02/09/22 17:57	02/10/22 18:09	1
Toluene-d8 (Surr)	103		80 - 120	02/09/22 17:57	02/10/22 18:09	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
Pentachlorophenol	310	U	310	78	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
Naphthalene	380	U	380	6.6	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
Acenaphthylene	380	U	380	3.8	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
Acenaphthene	380	U	380	11	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
Dibenzofuran	380	U	380	5.4	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
Fluorene	380	U	380	5.2	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1
Phenanthrene	380	U	380	6.7	ug/Kg	☆	02/10/22 23:58	02/11/22 17:55	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 133_PE-11

Lab Sample ID: 460-252106-1

Date Collected: 02/07/22 15:10

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 86.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	380	U	380	12	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Fluoranthene	380	U	380	13	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Pyrene	380	U	380	9.5	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Benzo[a]anthracene	38	U	38	13	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Chrysene	380	U	380	6.5	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Benzo[b]fluoranthene	38	U	38	9.9	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Benzo[k]fluoranthene	38	U	38	7.5	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Benzo[a]pyrene	38	U	38	10	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Indeno[1,2,3-cd]pyrene	38	U	38	15	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Dibenz(a,h)anthracene	38	U	38	17	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
Benzo[g,h,i]perylene	380	U	380	11	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	02/10/22 23:58	02/11/22 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	88		11 - 104	02/10/22 23:58	02/11/22 17:55	1
Phenol-d5 (Surr)	85		15 - 100	02/10/22 23:58	02/11/22 17:55	1
Terphenyl-d14 (Surr)	85		12 - 126	02/10/22 23:58	02/11/22 17:55	1
2,4,6-Tribromophenol (Surr)	85		10 - 123	02/10/22 23:58	02/11/22 17:55	1
2-Fluorophenol (Surr)	90		10 - 105	02/10/22 23:58	02/11/22 17:55	1
2-Fluorobiphenyl	92		14 - 103	02/10/22 23:58	02/11/22 17:55	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	1.9	J	7.7	1.3	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
4,4'-DDE	7.7	U	7.7	0.91	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
4,4'-DDT	3.3	J	7.7	1.4	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Chlordane (technical)	77	U	77	19	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Endosulfan II	7.7	U	7.7	2.0	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Endosulfan sulfate	7.7	U	7.7	0.97	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Endrin	7.7	U	7.7	1.1	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Heptachlor	7.7	U	7.7	0.91	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Heptachlor epoxide	7.7	U	7.7	1.2	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Methoxychlor	7.7	U	7.7	1.8	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
Toxaphene	77	U	77	28	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	✱	02/12/22 15:03	02/13/22 17:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		10 - 150	02/12/22 15:03	02/13/22 17:58	1
DCB Decachlorobiphenyl	83		10 - 150	02/12/22 15:03	02/13/22 17:58	1
Tetrachloro-m-xylene	52		10 - 133	02/12/22 15:03	02/13/22 17:58	1
Tetrachloro-m-xylene	45		10 - 133	02/12/22 15:03	02/13/22 17:58	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 133_PE-11

Lab Sample ID: 460-252106-1

Date Collected: 02/07/22 15:10

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 86.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Aroclor 1221	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Aroclor 1232	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Aroclor 1242	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Aroclor 1248	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Aroclor 1254	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Aroclor 1260	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Aroclor-1262	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Aroclor 1268	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1
Polychlorinated biphenyls, Total	77	U	77	21	ug/Kg	☆	02/12/22 15:00	02/13/22 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	103		37 - 150	02/12/22 15:00	02/13/22 12:53	1
DCB Decachlorobiphenyl	80		37 - 150	02/12/22 15:00	02/13/22 12:53	1
Tetrachloro-m-xylene	40 *		54 - 150	02/12/22 15:00	02/13/22 12:53	1
Tetrachloro-m-xylene	58		54 - 150	02/12/22 15:00	02/13/22 12:53	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	☆	02/12/22 00:30	02/13/22 09:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		65 - 150	02/12/22 00:30	02/13/22 09:49	1
2,4-Dichlorophenylacetic acid	141		65 - 150	02/12/22 00:30	02/13/22 09:49	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.23	U	0.23	0.056	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
8:2 Fluorotelomer sulfonic acid	0.23	U	0.23	0.019	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
NEtFOSAA	0.23	U	0.23	0.025	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
NMeFOSAA	0.23	U	0.23	0.035	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorobutanesulfonic acid	0.46	U	0.46	0.41	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorobutanoic acid	0.23	U	0.23	0.027	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorodecanesulfonic acid	0.23	U	0.23	0.024	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorodecanoic acid	0.23	U	0.23	0.027	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorododecanoic acid	0.23	U	0.23	0.026	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluoroheptanesulfonic acid	0.23	U	0.23	0.023	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluoroheptanoic acid	0.23	U	0.23	0.027	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorohexanesulfonic acid	0.23	U	0.23	0.022	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorohexanoic acid	0.022	J	0.23	0.022	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorononanoic acid	0.052	J	0.23	0.026	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorooctanesulfonamide	0.23	U	0.23	0.024	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorooctanesulfonic acid	0.45		0.23	0.040	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorooctanoic acid	0.11	J	0.23	0.025	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluoropentanoic acid	0.23	U	0.23	0.027	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorotetradecanoic acid	0.23	U	0.23	0.027	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluorotridecanoic acid	0.23	U	0.23	0.024	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1
Perfluoroundecanoic acid	0.23	U	0.23	0.064	ug/Kg	☆	02/17/22 06:35	02/19/22 04:13	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	83		10 - 200	02/17/22 06:35	02/19/22 04:13	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 133_PE-11

Lab Sample ID: 460-252106-1

Date Collected: 02/07/22 15:10

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 86.5

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	82		15 - 200	02/17/22 06:35	02/19/22 04:13	1
13C2 PFTeDA	82		10 - 169	02/17/22 06:35	02/19/22 04:13	1
13C3 PFBS	85		27 - 179	02/17/22 06:35	02/19/22 04:13	1
13C4 PFBA	82		28 - 153	02/17/22 06:35	02/19/22 04:13	1
13C4 PFHpA	83		10 - 178	02/17/22 06:35	02/19/22 04:13	1
13C5 PFPeA	82		24 - 161	02/17/22 06:35	02/19/22 04:13	1
13C8 PFOA	86		26 - 159	02/17/22 06:35	02/19/22 04:13	1
13C8 PFOS	86		41 - 154	02/17/22 06:35	02/19/22 04:13	1
d3-NMeFOSAA	35		10 - 178	02/17/22 06:35	02/19/22 04:13	1
d5-NEtFOSAA	44		10 - 193	02/17/22 06:35	02/19/22 04:13	1
13C3 PFHxS	87		24 - 171	02/17/22 06:35	02/19/22 04:13	1
13C5 PFHxA	83		10 - 174	02/17/22 06:35	02/19/22 04:13	1
13C6 PFDA	86		26 - 161	02/17/22 06:35	02/19/22 04:13	1
13C7 PFUnA	76		12 - 173	02/17/22 06:35	02/19/22 04:13	1
13C8 FOSA	59		14 - 163	02/17/22 06:35	02/19/22 04:13	1
13C2-PFDoDA	78		11 - 166	02/17/22 06:35	02/19/22 04:13	1
13C9 PFNA	89		26 - 165	02/17/22 06:35	02/19/22 04:13	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.6	U	5.6	0.49	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Arsenic	2.4	J	5.6	0.57	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Barium	22.8		11.1	0.81	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Beryllium	0.38	J	2.2	0.32	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Cadmium	5.6	U	5.6	0.63	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Chromium	11.6		11.1	1.5	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Copper	16.6		11.1	2.0	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Manganese	216		22.2	2.2	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Nickel	9.5	J	11.1	2.6	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Lead	8.9		3.3	1.1	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Selenium	6.9	U	6.9	0.71	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5
Zinc	26.2	J	44.5	17.0	mg/Kg	✱	02/20/22 06:55	02/20/22 22:12	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.018	0.0085	mg/Kg	✱	02/15/22 02:59	02/15/22 07:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.6		2.0	2.0	mg/Kg			02/13/22 21:23	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	✱	02/11/22 07:58	02/11/22 14:00	1
Cyanide, Total	0.25	U	0.25	0.14	mg/Kg	✱	02/12/22 06:37	02/12/22 13:48	1
Percent Moisture	13.5		1.0	1.0	%			02/12/22 02:37	1
Percent Solids	86.5		1.0	1.0	%			02/12/22 02:37	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 134_PE-20

Lab Sample ID: 460-252106-2

Date Collected: 02/07/22 15:20

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 92.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.50	U	0.50	0.12	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,1-Dichloroethane	0.50	U	0.50	0.10	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,1-Dichloroethene	0.50	U	0.50	0.11	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.12	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,2-Dichlorobenzene	0.50	U	0.50	0.18	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,2-Dichloroethane	0.50	U	0.50	0.15	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.16	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,3-Dichlorobenzene	0.50	U	0.50	0.18	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,4-Dichlorobenzene	0.50	U	0.50	0.11	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
1,4-Dioxane	50	U	50	4.6	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
2-Butanone (MEK)	2.5	U	2.5	0.18	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Acetone	3.0	U	3.0	2.8	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Benzene	0.50	U	0.50	0.13	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Carbon tetrachloride	0.50	U	0.50	0.19	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Chlorobenzene	0.50	U	0.50	0.088	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Chloroform	0.50	U	0.50	0.48	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.18	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Ethylbenzene	0.50	U	0.50	0.099	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Methyl tert-butyl ether	0.50	U	0.50	0.26	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Methylene Chloride	1.0	U	1.0	0.57	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
n-Butylbenzene	0.50	U	0.50	0.15	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
N-Propylbenzene	0.50	U	0.50	0.087	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
sec-Butylbenzene	0.50	U	0.50	0.14	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
tert-Butylbenzene	0.50	U	0.50	0.14	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Tetrachloroethene	0.50	U	0.50	0.15	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Toluene	0.50	U	0.50	0.12	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Trichloroethene	0.50	U	0.50	0.16	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Vinyl chloride	0.50	U	0.50	0.27	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1
Xylenes, Total	1.0	U	1.0	0.32	ug/Kg	☆	02/09/22 17:58	02/10/22 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 145	02/09/22 17:58	02/10/22 18:32	1
4-Bromofluorobenzene	103		70 - 139	02/09/22 17:58	02/10/22 18:32	1
Dibromofluoromethane (Surr)	109		48 - 150	02/09/22 17:58	02/10/22 18:32	1
Toluene-d8 (Surr)	99		80 - 120	02/09/22 17:58	02/10/22 18:32	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	360	U	360	13	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
2-Methylphenol	360	U	360	13	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
3 & 4 Methylphenol	360	U	360	22	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
Pentachlorophenol	290	U	290	73	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
Naphthalene	360	U	360	6.2	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
Acenaphthylene	360	U	360	3.6	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
Acenaphthene	360	U	360	10	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
Dibenzofuran	5.7	J	360	5.0	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
Fluorene	9.0	J	360	4.8	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
Hexachlorobenzene	36	U	36	17	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1
Phenanthrene	110	J	360	6.3	ug/Kg	☆	02/10/22 23:58	02/11/22 18:19	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 134_PE-20

Lab Sample ID: 460-252106-2

Date Collected: 02/07/22 15:20

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 92.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	24	J	360	11	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Fluoranthene	160	J	360	12	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Pyrene	140	J	360	8.9	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Benzo[a]anthracene	87		36	12	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Chrysene	82	J	360	6.0	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Benzo[b]fluoranthene	83		36	9.2	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Benzo[k]fluoranthene	32	J	36	7.0	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Benzo[a]pyrene	72		36	9.5	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Indeno[1,2,3-cd]pyrene	48		36	14	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Dibenz(a,h)anthracene	36	U	36	15	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
Benzo[g,h,i]perylene	39	J	360	11	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1
1,4-Dioxane	36	U	36	31	ug/Kg	✱	02/10/22 23:58	02/11/22 18:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		11 - 104	02/10/22 23:58	02/11/22 18:19	1
Phenol-d5 (Surr)	83		15 - 100	02/10/22 23:58	02/11/22 18:19	1
Terphenyl-d14 (Surr)	84		12 - 126	02/10/22 23:58	02/11/22 18:19	1
2,4,6-Tribromophenol (Surr)	81		10 - 123	02/10/22 23:58	02/11/22 18:19	1
2-Fluorophenol (Surr)	82		10 - 105	02/10/22 23:58	02/11/22 18:19	1
2-Fluorobiphenyl	90		14 - 103	02/10/22 23:58	02/11/22 18:19	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	11		7.2	1.2	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
4,4'-DDE	4.2	J	7.2	0.85	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
4,4'-DDT	8.8		7.2	1.3	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Aldrin	7.2	U	7.2	1.1	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
alpha-BHC	2.2	U	2.2	0.74	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
beta-BHC	2.2	U	2.2	0.81	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Chlordane (technical)	72	U	72	18	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
delta-BHC	2.2	U	2.2	0.44	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Dieldrin	2.2	U	2.2	0.94	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Endosulfan I	7.2	U	7.2	1.1	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Endosulfan II	7.2	U	7.2	1.9	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Endosulfan sulfate	7.2	U	7.2	0.91	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Endrin	7.2	U	7.2	1.0	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Endrin aldehyde	7.2	U	7.2	1.7	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Endrin ketone	7.2	U	7.2	1.4	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
gamma-BHC (Lindane)	2.2	U	2.2	0.67	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Heptachlor	7.2	U	7.2	0.85	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Heptachlor epoxide	7.2	U	7.2	1.1	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Methoxychlor	7.2	U	7.2	1.7	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
Toxaphene	72	U	72	26	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1
cis-Chlordane	7.2	U	7.2	1.1	ug/Kg	✱	02/12/22 15:03	02/13/22 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		10 - 150	02/12/22 15:03	02/13/22 18:12	1
DCB Decachlorobiphenyl	100		10 - 150	02/12/22 15:03	02/13/22 18:12	1
Tetrachloro-m-xylene	59		10 - 133	02/12/22 15:03	02/13/22 18:12	1
Tetrachloro-m-xylene	60		10 - 133	02/12/22 15:03	02/13/22 18:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 134_PE-20

Lab Sample ID: 460-252106-2

Date Collected: 02/07/22 15:20

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 92.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Aroclor 1221	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Aroclor 1232	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Aroclor 1242	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Aroclor 1248	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Aroclor 1254	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Aroclor 1260	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Aroclor-1262	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Aroclor 1268	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1
Polychlorinated biphenyls, Total	72	U	72	19	ug/Kg	☆	02/12/22 15:00	02/13/22 13:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		37 - 150	02/12/22 15:00	02/13/22 13:12	1
DCB Decachlorobiphenyl	88		37 - 150	02/12/22 15:00	02/13/22 13:12	1
Tetrachloro-m-xylene	60		54 - 150	02/12/22 15:00	02/13/22 13:12	1
Tetrachloro-m-xylene	76		54 - 150	02/12/22 15:00	02/13/22 13:12	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	36	U	36	3.7	ug/Kg	☆	02/12/22 00:30	02/13/22 10:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	113		65 - 150	02/12/22 00:30	02/13/22 10:03	1
2,4-Dichlorophenylacetic acid	139		65 - 150	02/12/22 00:30	02/13/22 10:03	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.21	U	0.21	0.052	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
8:2 Fluorotelomer sulfonic acid	0.21	U	0.21	0.018	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
NEtFOSAA	0.21	U	0.21	0.024	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
NMeFOSAA	0.21	U	0.21	0.033	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorobutanesulfonic acid	0.43	U	0.43	0.39	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorobutanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorodecanesulfonic acid	0.21	U	0.21	0.022	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorodecanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorododecanoic acid	0.21	U	0.21	0.025	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluoroheptanesulfonic acid	0.21	U	0.21	0.021	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluoroheptanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorohexanesulfonic acid	0.21	U	0.21	0.020	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorohexanoic acid	0.21	U	0.21	0.020	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorononanoic acid	0.21	U	0.21	0.025	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorooctanesulfonamide	0.21	U	0.21	0.022	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorooctanesulfonic acid	0.53		0.21	0.037	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorooctanoic acid	0.16	J	0.21	0.024	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluoropentanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorotetradecanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluorotridecanoic acid	0.21	U	0.21	0.022	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1
Perfluoroundecanoic acid	0.21	U	0.21	0.060	ug/Kg	☆	02/17/22 06:35	02/19/22 04:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	87		10 - 200	02/17/22 06:35	02/19/22 04:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 134_PE-20

Lab Sample ID: 460-252106-2

Date Collected: 02/07/22 15:20

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 92.5

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	94		15 - 200	02/17/22 06:35	02/19/22 04:24	1
13C2 PFTeDA	82		10 - 169	02/17/22 06:35	02/19/22 04:24	1
13C3 PFBS	88		27 - 179	02/17/22 06:35	02/19/22 04:24	1
13C4 PFBA	82		28 - 153	02/17/22 06:35	02/19/22 04:24	1
13C4 PFHpA	81		10 - 178	02/17/22 06:35	02/19/22 04:24	1
13C5 PFPeA	81		24 - 161	02/17/22 06:35	02/19/22 04:24	1
13C8 PFOA	84		26 - 159	02/17/22 06:35	02/19/22 04:24	1
13C8 PFOS	89		41 - 154	02/17/22 06:35	02/19/22 04:24	1
d3-NMeFOSAA	57		10 - 178	02/17/22 06:35	02/19/22 04:24	1
d5-NEtFOSAA	63		10 - 193	02/17/22 06:35	02/19/22 04:24	1
13C3 PFHxS	88		24 - 171	02/17/22 06:35	02/19/22 04:24	1
13C5 PFHxA	81		10 - 174	02/17/22 06:35	02/19/22 04:24	1
13C6 PFDA	87		26 - 161	02/17/22 06:35	02/19/22 04:24	1
13C7 PFUnA	77		12 - 173	02/17/22 06:35	02/19/22 04:24	1
13C8 FOSA	57		14 - 163	02/17/22 06:35	02/19/22 04:24	1
13C2-PFDoDA	79		11 - 166	02/17/22 06:35	02/19/22 04:24	1
13C9 PFNA	89		26 - 165	02/17/22 06:35	02/19/22 04:24	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.2	U	5.2	0.46	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Arsenic	1.8	J	5.2	0.53	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Barium	44.3		10.3	0.75	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Beryllium	0.30	J	2.1	0.29	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Cadmium	5.2	U	5.2	0.58	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Chromium	11.7		10.3	1.4	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Copper	14.7		10.3	1.9	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Manganese	179		20.6	2.1	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Nickel	11.2		10.3	2.4	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Lead	52.2		3.1	1.0	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Selenium	6.4	U	6.4	0.66	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5
Zinc	46.7		41.2	15.7	mg/Kg	✱	02/20/22 06:55	02/20/22 22:15	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.077		0.017	0.0081	mg/Kg	✱	02/15/22 02:59	02/15/22 07:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.7		2.0	2.0	mg/Kg			02/13/22 21:23	1
Cr (VI)	2.2	U	2.2	0.92	mg/Kg	✱	02/11/22 18:45	02/12/22 16:27	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	02/12/22 06:37	02/12/22 13:49	1
Percent Moisture	7.5		1.0	1.0	%			02/12/22 02:37	1
Percent Solids	92.5		1.0	1.0	%			02/12/22 02:37	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 135_TB-12

Lab Sample ID: 460-252106-3

Date Collected: 02/07/22 15:30

Matrix: Water

Date Received: 02/08/22 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/10/22 12:03	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/10/22 12:03	1
Acetone	5.0	U	5.0	4.4	ug/L			02/10/22 12:03	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/10/22 12:03	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/10/22 12:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/10/22 12:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/10/22 12:03	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/10/22 12:03	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/10/22 12:03	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/10/22 12:03	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/10/22 12:03	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/10/22 12:03	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/10/22 12:03	1
Benzene	1.0	U	1.0	0.20	ug/L			02/10/22 12:03	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/10/22 12:03	1
Toluene	1.0	U	1.0	0.38	ug/L			02/10/22 12:03	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/10/22 12:03	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/10/22 12:03	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/10/22 12:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/10/22 12:03	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/10/22 12:03	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/10/22 12:03	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/10/22 12:03	1
1,4-Dioxane	50	U *	50	28	ug/L			02/10/22 12:03	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/10/22 12:03	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/10/22 12:03	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/10/22 12:03	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/10/22 12:03	1
tert-Butylbenzene	1.0	U *	1.0	0.34	ug/L			02/10/22 12:03	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/10/22 12:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 123		02/10/22 12:03	1
Toluene-d8 (Surr)	96		80 - 120		02/10/22 12:03	1
4-Bromofluorobenzene	102		76 - 120		02/10/22 12:03	1
Dibromofluoromethane (Surr)	108		77 - 124		02/10/22 12:03	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-252106-1	133_PE-11	118	105	107	103
460-252106-2	134_PE-20	118	103	109	99
LCS 460-827476/3	Lab Control Sample	110	101	107	102
LCSD 460-827476/4	Lab Control Sample Dup	102	99	104	99
MB 460-827476/8	Method Blank	108	102	114	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-252106-3	135_TB-12	90	96	102	108
460-252110-A-5 MS	Matrix Spike	92	99	100	106
460-252110-A-5 MSD	Matrix Spike Duplicate	91	100	103	108
LCS 460-827460/4	Lab Control Sample	89	99	99	103
MB 460-827460/8	Method Blank	89	98	103	106

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-252106-1	133_PE-11	88	85	85	85	90	92
460-252106-2	134_PE-20	83	83	84	81	82	90
460-252143-E-1-G MS	Matrix Spike	95	87	86	92	89	90
460-252143-E-1-H MSD	Matrix Spike Duplicate	95	85	85	88	89	90
LCS 460-827671/2-A	Lab Control Sample	68	67	73	77	68	71
LCSD 460-827671/3-A	Lab Control Sample Dup	71	72	77	81	72	77
MB 460-827671/1-A	Method Blank	60	61	67	67	60	64

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

FBP = 2-Fluorobiphenyl

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-251689-A-1-M MS	Matrix Spike	106	79	48	48
460-251689-A-1-N MSD	Matrix Spike Duplicate	102	78	49	49
460-252106-1	133_PE-11	83	68	45	52
460-252106-2	134_PE-20	100	77	60	59
LCS 460-827938/2-A	Lab Control Sample	105	84	78	81
LCSD 460-827938/3-A	Lab Control Sample Dup	108	99	87	94
MB 460-827938/1-A	Method Blank	98	85	78	86

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-251689-A-1-J MS	Matrix Spike	93	102	54	44 *
460-251689-A-1-K MSD	Matrix Spike Duplicate	91	100	53 *	42 *
460-252106-1	133_PE-11	80	103	58	40 *
460-252106-2	134_PE-20	88	112	76	60
LCS 460-827937/2-A	Lab Control Sample	81	93	83	66
LCSD 460-827937/3-A	Lab Control Sample Dup	89	99	90	69
MB 460-827937/1-A	Method Blank	89	114	92	72

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1 (65-150)	DCPAA2 (65-150)
460-252106-1	133_PE-11	141	112
460-252106-1 MS	133_PE-11	143	114
460-252106-1 MSD	133_PE-11	134	112
460-252106-2	134_PE-20	139	113
LCS 460-827881/2-A	Lab Control Sample	125	111
LCSD 460-827881/3-A	Lab Control Sample Dup	125	111
MB 460-827881/1-A	Method Blank	118	107

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (10-200)	M282FTS (15-200)	PFTDA (10-169)	C3PFBS (27-179)	PFBA (28-153)	C4PFHA (10-178)	PFPeA (24-161)	C8PFOA (26-159)
460-252048-A-15-E MS	Matrix Spike	69	74	73	82	66	67	65	68
460-252048-A-15-F MSD	Matrix Spike Duplicate	72	75	74	85	63	66	64	69
460-252106-1	133_PE-11	83	82	82	85	82	83	82	86
460-252106-2	134_PE-20	87	94	82	88	82	81	81	84
LCS 410-224769/2-B	Lab Control Sample	113	113	108	125	118	114	119	123
MB 410-224769/1-B	Method Blank	133	131	130	136	132	130	130	136

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C8PFOS (41-154)	d3NMFOS (10-178)	d5NEFOS (10-193)	C3PFHS (24-171)	13C5PHA (10-174)	C6PFDA (26-161)	13C7PUA (12-173)	PFOSA (14-163)
460-252048-A-15-E MS	Matrix Spike	83	22	29	83	66	75	67	69
460-252048-A-15-F MSD	Matrix Spike Duplicate	88	28	37	88	64	76	68	69
460-252106-1	133_PE-11	86	35	44	87	83	86	76	59
460-252106-2	134_PE-20	89	57	63	88	81	87	77	57
LCS 410-224769/2-B	Lab Control Sample	121	82	87	123	117	124	114	100
MB 410-224769/1-B	Method Blank	140	90	96	146	133	137	129	123

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (11-166)	C9PFNA (26-165)
460-252048-A-15-E MS	Matrix Spike	65	72
460-252048-A-15-F MSD	Matrix Spike Duplicate	64	72
460-252106-1	133_PE-11	78	89
460-252106-2	134_PE-20	79	89
LCS 410-224769/2-B	Lab Control Sample	111	121
MB 410-224769/1-B	Method Blank	127	140

Surrogate Legend

M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
PFDODA = 13C2-PFDODA
C9PFNA = 13C9 PFNA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-827460/8

Matrix: Water

Analysis Batch: 827460

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/10/22 11:01	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/10/22 11:01	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/10/22 11:01	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/10/22 11:01	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/10/22 11:01	1
Acetone	5.0	U	5.0	4.4	ug/L			02/10/22 11:01	1
Benzene	1.0	U	1.0	0.20	ug/L			02/10/22 11:01	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/10/22 11:01	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/10/22 11:01	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/10/22 11:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/10/22 11:01	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/10/22 11:01	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/10/22 11:01	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/10/22 11:01	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/10/22 11:01	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/10/22 11:01	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/10/22 11:01	1
1,4-Dioxane	50	U	50	28	ug/L			02/10/22 11:01	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/10/22 11:01	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/10/22 11:01	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/10/22 11:01	1
Toluene	1.0	U	1.0	0.38	ug/L			02/10/22 11:01	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/10/22 11:01	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/10/22 11:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/10/22 11:01	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/10/22 11:01	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/10/22 11:01	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/10/22 11:01	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/10/22 11:01	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/10/22 11:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 123		02/10/22 11:01	1
4-Bromofluorobenzene	103		76 - 120		02/10/22 11:01	1
Toluene-d8 (Surr)	98		80 - 120		02/10/22 11:01	1
Dibromofluoromethane (Surr)	106		77 - 124		02/10/22 11:01	1

Lab Sample ID: LCS 460-827460/4

Matrix: Water

Analysis Batch: 827460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	18.3		ug/L		91	68 - 133
1,1-Dichloroethane	20.0	16.6		ug/L		83	73 - 130
1,2-Dichloroethane	20.0	17.3		ug/L		86	75 - 121
1,1,1-Trichloroethane	20.0	18.8		ug/L		94	68 - 128
2-Butanone (MEK)	100	108		ug/L		108	69 - 128
Acetone	100	93.8		ug/L		94	61 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-827460/4

Matrix: Water

Analysis Batch: 827460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	16.9		ug/L		85	78 - 126
Carbon tetrachloride	20.0	18.6		ug/L		93	56 - 131
Chloroform	20.0	18.4		ug/L		92	78 - 125
Chlorobenzene	20.0	18.1		ug/L		91	80 - 119
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	78 - 121
Ethylbenzene	20.0	18.4		ug/L		92	78 - 120
Methylene Chloride	20.0	18.8		ug/L		94	74 - 127
m-Xylene & p-Xylene	20.0	18.1		ug/L		91	78 - 123
Methyl tert-butyl ether	20.0	19.0		ug/L		95	65 - 131
1,3-Dichlorobenzene	20.0	17.9		ug/L		89	80 - 121
1,4-Dichlorobenzene	20.0	18.0		ug/L		90	80 - 118
o-Xylene	20.0	19.0		ug/L		95	78 - 122
1,2-Dichlorobenzene	20.0	18.5		ug/L		93	79 - 122
1,4-Dioxane	400	578 *		ug/L		144	70 - 142
1,2,4-Trimethylbenzene	20.0	18.2		ug/L		91	75 - 125
Tetrachloroethene	20.0	18.8		ug/L		94	70 - 127
1,3,5-Trimethylbenzene	20.0	18.1		ug/L		91	75 - 125
Toluene	20.0	17.3		ug/L		87	78 - 119
N-Propylbenzene	20.0	16.8		ug/L		84	74 - 129
sec-Butylbenzene	20.0	17.8		ug/L		89	73 - 129
trans-1,2-Dichloroethene	20.0	18.9		ug/L		94	74 - 126
tert-Butylbenzene	20.0	13.6 *		ug/L		68	72 - 124
Trichloroethene	20.0	17.8		ug/L		89	71 - 121
n-Butylbenzene	20.0	17.3		ug/L		86	69 - 135
Vinyl chloride	20.0	16.8		ug/L		84	61 - 144
Xylenes, Total	40.0	37.1		ug/L		93	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		75 - 123
4-Bromofluorobenzene	99		76 - 120
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	103		77 - 124

Lab Sample ID: 460-252110-A-5 MS

Matrix: Water

Analysis Batch: 827460

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.0	U	20.0	18.6		ug/L		93	68 - 133
1,1-Dichloroethane	2.2		20.0	19.1		ug/L		85	73 - 130
1,2-Dichloroethane	1.1		20.0	19.3		ug/L		91	75 - 121
1,1,1-Trichloroethane	1.0	U	20.0	20.0		ug/L		100	68 - 128
2-Butanone (MEK)	5.0	U	100	96.8		ug/L		97	69 - 128
Acetone	5.0	U	100	77.3		ug/L		77	61 - 134
Benzene	0.27	J	20.0	17.8		ug/L		88	78 - 126
Carbon tetrachloride	1.0	U	20.0	19.6		ug/L		98	56 - 131
Chloroform	1.0	U	20.0	19.7		ug/L		99	78 - 125
Chlorobenzene	3.0		20.0	21.8		ug/L		94	80 - 119

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-252110-A-5 MS

Matrix: Water

Analysis Batch: 827460

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	0.79	J	20.0	20.6		ug/L		99	78 - 121
Ethylbenzene	1.0	U	20.0	18.7		ug/L		94	78 - 120
Methylene Chloride	1.0	U	20.0	19.3		ug/L		96	74 - 127
m-Xylene & p-Xylene	1.0	U	20.0	18.6		ug/L		93	78 - 123
Methyl tert-butyl ether	0.43	J	20.0	19.7		ug/L		96	65 - 131
1,3-Dichlorobenzene	1.0	U	20.0	18.5		ug/L		93	80 - 121
1,4-Dichlorobenzene	1.0	U	20.0	18.7		ug/L		94	80 - 118
o-Xylene	1.0	U	20.0	18.5		ug/L		93	78 - 122
1,2-Dichlorobenzene	1.0	U	20.0	19.0		ug/L		95	79 - 122
1,4-Dioxane	50	U *	400	364		ug/L		91	70 - 142
1,2,4-Trimethylbenzene	1.0	U	20.0	17.7		ug/L		89	75 - 125
Tetrachloroethene	1.0	U	20.0	20.1		ug/L		101	70 - 127
1,3,5-Trimethylbenzene	1.0	U	20.0	18.0		ug/L		90	75 - 125
Toluene	0.65	J	20.0	18.3		ug/L		88	78 - 119
N-Propylbenzene	1.0	U	20.0	16.7		ug/L		84	74 - 129
sec-Butylbenzene	1.0	U	20.0	17.8		ug/L		89	73 - 129
trans-1,2-Dichloroethene	1.0	U	20.0	19.7		ug/L		99	74 - 126
tert-Butylbenzene	1.0	U *	20.0	13.5	*	ug/L		68	72 - 124
Trichloroethene	1.0	U	20.0	18.6		ug/L		93	71 - 121
n-Butylbenzene	1.0	U	20.0	17.6		ug/L		88	69 - 135
Vinyl chloride	0.74	J	20.0	17.2		ug/L		82	61 - 144
Xylenes, Total	2.0	U	40.0	37.1		ug/L		93	78 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		75 - 123
4-Bromofluorobenzene	100		76 - 120
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	106		77 - 124

Lab Sample ID: 460-252110-A-5 MSD

Matrix: Water

Analysis Batch: 827460

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	1.0	U	20.0	18.1		ug/L		91	68 - 133	3	30
1,1-Dichloroethane	2.2		20.0	18.1		ug/L		80	73 - 130	6	30
1,2-Dichloroethane	1.1		20.0	17.5		ug/L		82	75 - 121	10	30
1,1,1-Trichloroethane	1.0	U	20.0	19.0		ug/L		95	68 - 128	5	30
2-Butanone (MEK)	5.0	U	100	94.2		ug/L		94	69 - 128	3	30
Acetone	5.0	U	100	79.0		ug/L		79	61 - 134	2	30
Benzene	0.27	J	20.0	16.5		ug/L		81	78 - 126	8	30
Carbon tetrachloride	1.0	U	20.0	18.9		ug/L		95	56 - 131	3	30
Chloroform	1.0	U	20.0	18.4		ug/L		92	78 - 125	7	30
Chlorobenzene	3.0		20.0	20.0		ug/L		85	80 - 119	8	30
cis-1,2-Dichloroethene	0.79	J	20.0	19.4		ug/L		93	78 - 121	6	30
Ethylbenzene	1.0	U	20.0	17.8		ug/L		89	78 - 120	5	30
Methylene Chloride	1.0	U	20.0	18.5		ug/L		92	74 - 127	4	30
m-Xylene & p-Xylene	1.0	U	20.0	17.6		ug/L		88	78 - 123	5	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-252110-A-5 MSD

Matrix: Water

Analysis Batch: 827460

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	0.43	J	20.0	18.6		ug/L		91	65 - 131	6	30
1,3-Dichlorobenzene	1.0	U	20.0	17.6		ug/L		88	80 - 121	5	30
1,4-Dichlorobenzene	1.0	U	20.0	17.5		ug/L		87	80 - 118	7	30
o-Xylene	1.0	U	20.0	18.1		ug/L		90	78 - 122	3	30
1,2-Dichlorobenzene	1.0	U	20.0	18.2		ug/L		91	79 - 122	4	30
1,4-Dioxane	50	U *	400	511	*	ug/L		128	70 - 142	34	30
1,2,4-Trimethylbenzene	1.0	U	20.0	16.9		ug/L		85	75 - 125	5	30
Tetrachloroethene	1.0	U	20.0	18.6		ug/L		93	70 - 127	8	30
1,3,5-Trimethylbenzene	1.0	U	20.0	17.1		ug/L		86	75 - 125	5	30
Toluene	0.65	J	20.0	17.2		ug/L		83	78 - 119	6	30
N-Propylbenzene	1.0	U	20.0	16.4		ug/L		82	74 - 129	2	30
sec-Butylbenzene	1.0	U	20.0	17.2		ug/L		86	73 - 129	4	30
trans-1,2-Dichloroethene	1.0	U	20.0	18.5		ug/L		93	74 - 126	6	30
tert-Butylbenzene	1.0	U *	20.0	12.8	*	ug/L		64	72 - 124	6	30
Trichloroethene	1.0	U	20.0	16.9		ug/L		85	71 - 121	10	30
n-Butylbenzene	1.0	U	20.0	17.0		ug/L		85	69 - 135	4	30
Vinyl chloride	0.74	J	20.0	17.0		ug/L		81	61 - 144	1	30
Xylenes, Total	2.0	U	40.0	35.7		ug/L		89	78 - 122	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		75 - 123
4-Bromofluorobenzene	103		76 - 120
Toluene-d8 (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	108		77 - 124

Lab Sample ID: MB 460-827476/8

Matrix: Solid

Analysis Batch: 827476

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			02/10/22 10:35	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			02/10/22 10:35	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			02/10/22 10:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			02/10/22 10:35	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			02/10/22 10:35	1
Acetone	6.0	U	6.0	5.7	ug/Kg			02/10/22 10:35	1
Benzene	1.0	U	1.0	0.26	ug/Kg			02/10/22 10:35	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			02/10/22 10:35	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			02/10/22 10:35	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			02/10/22 10:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			02/10/22 10:35	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			02/10/22 10:35	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			02/10/22 10:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			02/10/22 10:35	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			02/10/22 10:35	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			02/10/22 10:35	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			02/10/22 10:35	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			02/10/22 10:35	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-827476/8

Matrix: Solid

Analysis Batch: 827476

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			02/10/22 10:35	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			02/10/22 10:35	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			02/10/22 10:35	1
Toluene	1.0	U	1.0	0.23	ug/Kg			02/10/22 10:35	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			02/10/22 10:35	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/10/22 10:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			02/10/22 10:35	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			02/10/22 10:35	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			02/10/22 10:35	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/10/22 10:35	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			02/10/22 10:35	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			02/10/22 10:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 145		02/10/22 10:35	1
4-Bromofluorobenzene	102		70 - 139		02/10/22 10:35	1
Toluene-d8 (Surr)	102		80 - 120		02/10/22 10:35	1
Dibromofluoromethane (Surr)	114		48 - 150		02/10/22 10:35	1

Lab Sample ID: LCS 460-827476/3

Matrix: Solid

Analysis Batch: 827476

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	20.3		ug/Kg		101	77 - 132
1,1-Dichloroethane	20.0	20.4		ug/Kg		102	76 - 129
1,2-Dichloroethane	20.0	22.3		ug/Kg		112	70 - 132
1,1,1-Trichloroethane	20.0	21.9		ug/Kg		110	78 - 132
2-Butanone (MEK)	100	97.7		ug/Kg		98	75 - 120
Acetone	100	88.6		ug/Kg		89	63 - 131
Benzene	20.0	19.7		ug/Kg		99	80 - 123
Carbon tetrachloride	20.0	21.4		ug/Kg		107	72 - 136
Chloroform	20.0	20.6		ug/Kg		103	79 - 126
Chlorobenzene	20.0	20.2		ug/Kg		101	80 - 120
cis-1,2-Dichloroethene	20.0	19.6		ug/Kg		98	80 - 123
Ethylbenzene	20.0	19.7		ug/Kg		98	80 - 120
Methylene Chloride	20.0	20.2		ug/Kg		101	76 - 127
m-Xylene & p-Xylene	20.0	20.4		ug/Kg		102	80 - 120
Methyl tert-butyl ether	20.0	20.0		ug/Kg		100	80 - 125
1,3-Dichlorobenzene	20.0	21.0		ug/Kg		105	80 - 120
1,4-Dichlorobenzene	20.0	19.9		ug/Kg		99	80 - 120
o-Xylene	20.0	19.6		ug/Kg		98	80 - 120
1,2-Dichlorobenzene	20.0	20.1		ug/Kg		101	80 - 120
1,4-Dioxane	400	494		ug/Kg		124	73 - 136
1,2,4-Trimethylbenzene	20.0	20.9		ug/Kg		105	79 - 120
Tetrachloroethene	20.0	20.3		ug/Kg		102	78 - 123
1,3,5-Trimethylbenzene	20.0	21.3		ug/Kg		106	79 - 120
Toluene	20.0	19.8		ug/Kg		99	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-827476/3

Matrix: Solid

Analysis Batch: 827476

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	20.0	20.2		ug/Kg		101	78 - 120
sec-Butylbenzene	20.0	21.3		ug/Kg		106	78 - 120
trans-1,2-Dichloroethene	20.0	20.4		ug/Kg		102	78 - 128
tert-Butylbenzene	20.0	20.9		ug/Kg		104	76 - 120
Trichloroethene	20.0	20.2		ug/Kg		101	79 - 120
n-Butylbenzene	20.0	20.4		ug/Kg		102	77 - 123
Vinyl chloride	20.0	18.2		ug/Kg		91	56 - 147
Xylenes, Total	40.0	40.0		ug/Kg		100	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		77 - 145
4-Bromofluorobenzene	101		70 - 139
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	107		48 - 150

Lab Sample ID: LCSD 460-827476/4

Matrix: Solid

Analysis Batch: 827476

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	20.4		ug/Kg		102	77 - 132	0	30
1,1-Dichloroethane	20.0	20.2		ug/Kg		101	76 - 129	1	30
1,2-Dichloroethane	20.0	20.9		ug/Kg		105	70 - 132	6	30
1,1,1-Trichloroethane	20.0	21.4		ug/Kg		107	78 - 132	2	30
2-Butanone (MEK)	100	96.9		ug/Kg		97	75 - 120	1	30
Acetone	100	88.7		ug/Kg		89	63 - 131	0	30
Benzene	20.0	19.4		ug/Kg		97	80 - 123	2	30
Carbon tetrachloride	20.0	21.0		ug/Kg		105	72 - 136	2	30
Chloroform	20.0	19.7		ug/Kg		99	79 - 126	4	30
Chlorobenzene	20.0	19.5		ug/Kg		98	80 - 120	3	30
cis-1,2-Dichloroethene	20.0	19.6		ug/Kg		98	80 - 123	0	30
Ethylbenzene	20.0	19.6		ug/Kg		98	80 - 120	0	30
Methylene Chloride	20.0	19.0		ug/Kg		95	76 - 127	6	30
m-Xylene & p-Xylene	20.0	19.6		ug/Kg		98	80 - 120	4	30
Methyl tert-butyl ether	20.0	19.7		ug/Kg		98	80 - 125	2	30
1,3-Dichlorobenzene	20.0	19.7		ug/Kg		99	80 - 120	6	30
1,4-Dichlorobenzene	20.0	18.8		ug/Kg		94	80 - 120	6	30
o-Xylene	20.0	18.9		ug/Kg		94	80 - 120	4	30
1,2-Dichlorobenzene	20.0	19.0		ug/Kg		95	80 - 120	6	30
1,4-Dioxane	400	487		ug/Kg		122	73 - 136	1	30
1,2,4-Trimethylbenzene	20.0	19.5		ug/Kg		97	79 - 120	7	30
Tetrachloroethene	20.0	20.3		ug/Kg		102	78 - 123	0	30
1,3,5-Trimethylbenzene	20.0	19.8		ug/Kg		99	79 - 120	7	30
Toluene	20.0	18.8		ug/Kg		94	80 - 120	5	30
N-Propylbenzene	20.0	19.2		ug/Kg		96	78 - 120	5	30
sec-Butylbenzene	20.0	19.9		ug/Kg		99	78 - 120	7	30
trans-1,2-Dichloroethene	20.0	19.7		ug/Kg		98	78 - 128	4	30
tert-Butylbenzene	20.0	19.5		ug/Kg		97	76 - 120	7	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-827476/4

Matrix: Solid

Analysis Batch: 827476

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	20.0	20.0		ug/Kg		100	79 - 120	1	30
n-Butylbenzene	20.0	19.3		ug/Kg		96	77 - 123	6	30
Vinyl chloride	20.0	16.7		ug/Kg		84	56 - 147	9	30
Xylenes, Total	40.0	38.5		ug/Kg		96	80 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 145
4-Bromofluorobenzene	99		70 - 139
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	104		48 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-827671/1-A

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827671

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
2-Methylphenol	330	U	330	12	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Pentachlorophenol	270	U	270	68	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Naphthalene	330	U	330	5.7	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Acenaphthylene	330	U	330	3.3	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Acenaphthene	330	U	330	9.4	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Dibenzofuran	330	U	330	4.6	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Fluorene	330	U	330	4.5	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Hexachlorobenzene	33	U	33	16	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Phenanthrene	330	U	330	5.8	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Anthracene	330	U	330	10	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Fluoranthene	330	U	330	12	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Pyrene	330	U	330	8.2	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Chrysene	330	U	330	5.6	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		02/10/22 23:58	02/11/22 09:40	1
1,4-Dioxane	33	U	33	29	ug/Kg		02/10/22 23:58	02/11/22 09:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	60		11 - 104	02/10/22 23:58	02/11/22 09:40	1
Phenol-d5 (Surr)	61		15 - 100	02/10/22 23:58	02/11/22 09:40	1
Terphenyl-d14 (Surr)	67		12 - 126	02/10/22 23:58	02/11/22 09:40	1
2,4,6-Tribromophenol (Surr)	67		10 - 123	02/10/22 23:58	02/11/22 09:40	1
2-Fluorophenol (Surr)	60		10 - 105	02/10/22 23:58	02/11/22 09:40	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-827671/1-A

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827671

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	64		14 - 103	02/10/22 23:58	02/11/22 09:40	1

Lab Sample ID: LCS 460-827671/2-A

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827671

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	2580		ug/Kg		77	63 - 110
2-Methylphenol	3330	2500		ug/Kg		75	63 - 108
3 & 4 Methylphenol	3330	2520		ug/Kg		75	61 - 108
Pentachlorophenol	6670	5430		ug/Kg		81	44 - 126
Naphthalene	3330	2560		ug/Kg		77	63 - 106
Acenaphthylene	3330	2530		ug/Kg		76	64 - 108
Acenaphthene	3330	2790		ug/Kg		84	53 - 110
Dibenzofuran	3330	2740		ug/Kg		82	65 - 108
Fluorene	3330	2780		ug/Kg		83	65 - 109
Hexachlorobenzene	3330	2720		ug/Kg		81	61 - 113
Phenanthrene	3330	2690		ug/Kg		81	66 - 112
Anthracene	3330	2710		ug/Kg		81	67 - 114
Fluoranthene	3330	2730		ug/Kg		82	61 - 106
Pyrene	3330	2720		ug/Kg		82	61 - 111
Benzo[a]anthracene	3330	2730		ug/Kg		82	67 - 115
Chrysene	3330	2700		ug/Kg		81	71 - 122
Benzo[b]fluoranthene	3330	2870		ug/Kg		86	70 - 125
Benzo[k]fluoranthene	3330	2900		ug/Kg		87	67 - 115
Benzo[a]pyrene	3330	2600		ug/Kg		78	73 - 123
Indeno[1,2,3-cd]pyrene	3330	2970		ug/Kg		89	62 - 121
Dibenz(a,h)anthracene	3330	3000		ug/Kg		90	66 - 119
Benzo[g,h,i]perylene	3330	2820		ug/Kg		85	61 - 113
1,4-Dioxane	3330	2120		ug/Kg		64	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	68		11 - 104
Phenol-d5 (Surr)	67		15 - 100
Terphenyl-d14 (Surr)	73		12 - 126
2,4,6-Tribromophenol (Surr)	77		10 - 123
2-Fluorophenol (Surr)	68		10 - 105
2-Fluorobiphenyl	71		14 - 103

Lab Sample ID: LCSD 460-827671/3-A

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827671

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Phenol	3330	2790		ug/Kg		84	63 - 110	8	30
2-Methylphenol	3330	2710		ug/Kg		81	63 - 108	8	30
3 & 4 Methylphenol	3330	2660		ug/Kg		80	61 - 108	6	30
Pentachlorophenol	6670	5830		ug/Kg		88	44 - 126	7	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-827671/3-A

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827671

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	3330	2690		ug/Kg		81	63 - 106	5	30
Acenaphthylene	3330	2680		ug/Kg		80	64 - 108	6	30
Acenaphthene	3330	2910		ug/Kg		87	53 - 110	4	30
Dibenzofuran	3330	2870		ug/Kg		86	65 - 108	5	30
Fluorene	3330	3010		ug/Kg		90	65 - 109	8	30
Hexachlorobenzene	3330	2850		ug/Kg		85	61 - 113	5	30
Phenanthrene	3330	2830		ug/Kg		85	66 - 112	5	30
Anthracene	3330	2860		ug/Kg		86	67 - 114	5	30
Fluoranthene	3330	2860		ug/Kg		86	61 - 106	4	30
Pyrene	3330	2840		ug/Kg		85	61 - 111	4	30
Benzo[a]anthracene	3330	2840		ug/Kg		85	67 - 115	4	30
Chrysene	3330	2810		ug/Kg		84	71 - 122	4	30
Benzo[b]fluoranthene	3330	2940		ug/Kg		88	70 - 125	2	30
Benzo[k]fluoranthene	3330	3130		ug/Kg		94	67 - 115	8	30
Benzo[a]pyrene	3330	2770		ug/Kg		83	73 - 123	6	30
Indeno[1,2,3-cd]pyrene	3330	3070		ug/Kg		92	62 - 121	3	30
Dibenz(a,h)anthracene	3330	3080		ug/Kg		92	66 - 119	3	30
Benzo[g,h,i]perylene	3330	2920		ug/Kg		88	61 - 113	3	30
1,4-Dioxane	3330	2310		ug/Kg		69	31 - 81	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	71		11 - 104
Phenol-d5 (Surr)	72		15 - 100
Terphenyl-d14 (Surr)	77		12 - 126
2,4,6-Tribromophenol (Surr)	81		10 - 123
2-Fluorophenol (Surr)	72		10 - 105
2-Fluorobiphenyl	77		14 - 103

Lab Sample ID: 460-252143-E-1-G MS

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827671

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	370	U	3730	3660		ug/Kg	✱	98	63 - 110
2-Methylphenol	370	U	3730	3670		ug/Kg	✱	98	63 - 108
3 & 4 Methylphenol	370	U	3730	3580		ug/Kg	✱	96	61 - 108
Pentachlorophenol	300	U	7460	7740		ug/Kg	✱	104	44 - 126
Naphthalene	370	U	3730	3640		ug/Kg	✱	98	63 - 106
Acenaphthylene	370	U	3730	3700		ug/Kg	✱	99	64 - 108
Acenaphthene	370	U	3730	3910		ug/Kg	✱	105	53 - 110
Dibenzofuran	370	U	3730	3870		ug/Kg	✱	104	65 - 108
Fluorene	370	U	3730	3960		ug/Kg	✱	106	65 - 109
Hexachlorobenzene	37	U	3730	3820		ug/Kg	✱	102	61 - 113
Phenanthrene	27	J	3730	3820		ug/Kg	✱	102	66 - 112
Anthracene	370	U	3730	3890		ug/Kg	✱	104	67 - 114
Fluoranthene	64	J	3730	3870		ug/Kg	✱	102	61 - 106
Pyrene	69	J	3730	3840		ug/Kg	✱	101	61 - 111
Benzo[a]anthracene	46		3730	3910		ug/Kg	✱	103	67 - 115

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-252143-E-1-G MS

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827671

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	47	J	3730	3710		ug/Kg	✱	98	71 - 122
Benzo[b]fluoranthene	62		3730	3790		ug/Kg	✱	100	70 - 125
Benzo[k]fluoranthene	26	J	3730	4110		ug/Kg	✱	109	67 - 115
Benzo[a]pyrene	42		3730	3710		ug/Kg	✱	98	73 - 123
Indeno[1,2,3-cd]pyrene	35	J	3730	3890		ug/Kg	✱	103	62 - 121
Dibenz(a,h)anthracene	37	U	3730	3880		ug/Kg	✱	104	66 - 119
Benzo[g,h,i]perylene	31	J	3730	3490		ug/Kg	✱	93	61 - 113
1,4-Dioxane	37	U	3730	2830		ug/Kg	✱	76	31 - 81

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	95		11 - 104
Phenol-d5 (Surr)	87		15 - 100
Terphenyl-d14 (Surr)	86		12 - 126
2,4,6-Tribromophenol (Surr)	92		10 - 123
2-Fluorophenol (Surr)	89		10 - 105
2-Fluorobiphenyl	90		14 - 103

Lab Sample ID: 460-252143-E-1-H MSD

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 827671

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	370	U	3730	3560		ug/Kg	✱	95	63 - 110	3	30
2-Methylphenol	370	U	3730	3480		ug/Kg	✱	93	63 - 108	5	30
3 & 4 Methylphenol	370	U	3730	3490		ug/Kg	✱	94	61 - 108	3	30
Pentachlorophenol	300	U	7460	7630		ug/Kg	✱	102	44 - 126	1	30
Naphthalene	370	U	3730	3600		ug/Kg	✱	96	63 - 106	1	30
Acenaphthylene	370	U	3730	3540		ug/Kg	✱	95	64 - 108	4	30
Acenaphthene	370	U	3730	3800		ug/Kg	✱	102	53 - 110	3	30
Dibenzofuran	370	U	3730	3780		ug/Kg	✱	101	65 - 108	2	30
Fluorene	370	U	3730	3840		ug/Kg	✱	103	65 - 109	3	30
Hexachlorobenzene	37	U	3730	3740		ug/Kg	✱	100	61 - 113	2	30
Phenanthrene	27	J	3730	3770		ug/Kg	✱	100	66 - 112	1	30
Anthracene	370	U	3730	3750		ug/Kg	✱	101	67 - 114	4	30
Fluoranthene	64	J	3730	3840		ug/Kg	✱	101	61 - 106	1	30
Pyrene	69	J	3730	3790		ug/Kg	✱	100	61 - 111	1	30
Benzo[a]anthracene	46		3730	3810		ug/Kg	✱	101	67 - 115	3	30
Chrysene	47	J	3730	3660		ug/Kg	✱	97	71 - 122	1	30
Benzo[b]fluoranthene	62		3730	4090		ug/Kg	✱	108	70 - 125	8	30
Benzo[k]fluoranthene	26	J	3730	3790		ug/Kg	✱	101	67 - 115	8	30
Benzo[a]pyrene	42		3730	3650		ug/Kg	✱	97	73 - 123	2	30
Indeno[1,2,3-cd]pyrene	35	J	3730	3460		ug/Kg	✱	92	62 - 121	12	30
Dibenz(a,h)anthracene	37	U	3730	3520		ug/Kg	✱	94	66 - 119	10	30
Benzo[g,h,i]perylene	31	J	3730	2980		ug/Kg	✱	79	61 - 113	16	30
1,4-Dioxane	37	U	3730	2800		ug/Kg	✱	75	31 - 81	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	95		11 - 104

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-252143-E-1-H MSD

Matrix: Solid

Analysis Batch: 827728

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 827671

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Phenol-d5 (Surr)	85		15 - 100
Terphenyl-d14 (Surr)	85		12 - 126
2,4,6-Tribromophenol (Surr)	88		10 - 123
2-Fluorophenol (Surr)	89		10 - 105
2-Fluorobiphenyl	90		14 - 103

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-827938/1-A

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827938

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:03	02/13/22 15:46	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-827938/1-A

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827938

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Toxaphene	67	U	67	24	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
Toxaphene	67	U	67	24	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/12/22 15:03	02/13/22 15:46	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/12/22 15:03	02/13/22 15:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	02/12/22 15:03	02/13/22 15:46	1
DCB Decachlorobiphenyl	98		10 - 150	02/12/22 15:03	02/13/22 15:46	1
Tetrachloro-m-xylene	86		10 - 133	02/12/22 15:03	02/13/22 15:46	1
Tetrachloro-m-xylene	78		10 - 133	02/12/22 15:03	02/13/22 15:46	1

Lab Sample ID: LCS 460-827938/2-A

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827938

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	126		ug/Kg		95	70 - 140
4,4'-DDD	133	120		ug/Kg		90	70 - 140
4,4'-DDE	133	123		ug/Kg		93	71 - 137
4,4'-DDE	133	122		ug/Kg		92	71 - 137
4,4'-DDT	133	128		ug/Kg		96	63 - 131
4,4'-DDT	133	123		ug/Kg		92	63 - 131
Aldrin	133	119		ug/Kg		89	74 - 140
Aldrin	133	119		ug/Kg		89	74 - 140
alpha-BHC	133	121		ug/Kg		91	72 - 142
alpha-BHC	133	124		ug/Kg		93	72 - 142
beta-BHC	133	125		ug/Kg		94	65 - 137
beta-BHC	133	123		ug/Kg		92	65 - 137
delta-BHC	133	120		ug/Kg		90	70 - 143
delta-BHC	133	122		ug/Kg		91	70 - 143
Dieldrin	133	122		ug/Kg		91	70 - 135
Dieldrin	133	116		ug/Kg		87	70 - 135
Endosulfan I	133	113		ug/Kg		84	68 - 135
Endosulfan I	133	115		ug/Kg		86	68 - 135
Endosulfan II	133	120		ug/Kg		90	64 - 130
Endosulfan II	133	119		ug/Kg		89	64 - 130
Endosulfan sulfate	133	124		ug/Kg		93	66 - 143
Endosulfan sulfate	133	121		ug/Kg		90	66 - 143
Endrin	133	121		ug/Kg		91	68 - 136
Endrin	133	117		ug/Kg		88	68 - 136
Endrin aldehyde	133	121		ug/Kg		91	68 - 132
Endrin aldehyde	133	115		ug/Kg		87	68 - 132
Endrin ketone	133	120		ug/Kg		90	60 - 150
Endrin ketone	133	114		ug/Kg		85	60 - 150
gamma-BHC (Lindane)	133	121		ug/Kg		91	70 - 134
gamma-BHC (Lindane)	133	122		ug/Kg		92	70 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-827938/2-A

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827938

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Heptachlor	133	113		ug/Kg		85	69 - 134
Heptachlor	133	118		ug/Kg		88	69 - 134
Heptachlor epoxide	133	116		ug/Kg		87	70 - 135
Heptachlor epoxide	133	116		ug/Kg		87	70 - 135
Methoxychlor	133	124		ug/Kg		93	57 - 135
Methoxychlor	133	115		ug/Kg		87	57 - 135
cis-Chlordane	133	115		ug/Kg		86	70 - 136
cis-Chlordane	133	116		ug/Kg		87	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	84		10 - 150
DCB Decachlorobiphenyl	105		10 - 150
Tetrachloro-m-xylene	81		10 - 133
Tetrachloro-m-xylene	78		10 - 133

Lab Sample ID: LCSD 460-827938/3-A

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827938

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	133	153		ug/Kg		115	70 - 140	19	30
4,4'-DDD	133	141		ug/Kg		106	70 - 140	17	30
4,4'-DDE	133	151		ug/Kg		113	71 - 137	20	30
4,4'-DDE	133	144		ug/Kg		108	71 - 137	16	30
4,4'-DDT	133	156		ug/Kg		117	63 - 131	20	30
4,4'-DDT	133	147		ug/Kg		111	63 - 131	18	30
Aldrin	133	145		ug/Kg		109	74 - 140	20	30
Aldrin	133	139		ug/Kg		105	74 - 140	16	30
alpha-BHC	133	146		ug/Kg		109	72 - 142	16	30
alpha-BHC	133	145		ug/Kg		108	72 - 142	18	30
beta-BHC	133	151		ug/Kg		113	65 - 137	19	30
beta-BHC	133	144		ug/Kg		108	65 - 137	16	30
delta-BHC	133	146		ug/Kg		110	70 - 143	18	30
delta-BHC	133	143		ug/Kg		107	70 - 143	17	30
Dieldrin	133	148		ug/Kg		111	70 - 135	20	30
Dieldrin	133	137		ug/Kg		103	70 - 135	17	30
Endosulfan I	133	138		ug/Kg		103	68 - 135	18	30
Endosulfan I	133	136		ug/Kg		102	68 - 135	19	30
Endosulfan II	133	145		ug/Kg		109	64 - 130	19	30
Endosulfan II	133	141		ug/Kg		105	64 - 130	17	30
Endosulfan sulfate	133	150		ug/Kg		112	66 - 143	19	30
Endosulfan sulfate	133	142		ug/Kg		107	66 - 143	16	30
Endrin	133	147		ug/Kg		111	68 - 136	19	30
Endrin	133	139		ug/Kg		104	68 - 136	17	30
Endrin aldehyde	133	146		ug/Kg		110	68 - 132	19	30
Endrin aldehyde	133	136		ug/Kg		102	68 - 132	17	30
Endrin ketone	133	144		ug/Kg		108	60 - 150	18	30
Endrin ketone	133	134		ug/Kg		101	60 - 150	16	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-827938/3-A

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827938

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
gamma-BHC (Lindane)	133	146		ug/Kg		109	70 - 134	18	30
gamma-BHC (Lindane)	133	143		ug/Kg		107	70 - 134	17	30
Heptachlor	133	138		ug/Kg		103	69 - 134	19	30
Heptachlor	133	138		ug/Kg		104	69 - 134	16	30
Heptachlor epoxide	133	142		ug/Kg		107	70 - 135	20	30
Heptachlor epoxide	133	136		ug/Kg		102	70 - 135	16	30
Methoxychlor	133	149		ug/Kg		112	57 - 135	19	30
Methoxychlor	133	137		ug/Kg		103	57 - 135	17	30
cis-Chlordane	133	141		ug/Kg		106	70 - 136	19	30
cis-Chlordane	133	137		ug/Kg		102	70 - 136	18	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	99		10 - 150
DCB Decachlorobiphenyl	108		10 - 150
Tetrachloro-m-xylene	94		10 - 133
Tetrachloro-m-xylene	87		10 - 133

Lab Sample ID: 460-251689-A-1-M MS

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827938

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	7.6	U	150	159		ug/Kg	✱	106	70 - 140
4,4'-DDD	7.6	U	150	153		ug/Kg	✱	102	70 - 140
4,4'-DDE	7.6	U	150	155		ug/Kg	✱	103	71 - 137
4,4'-DDE	7.6	U	150	154		ug/Kg	✱	102	71 - 137
4,4'-DDT	7.6	U	150	163		ug/Kg	✱	109	63 - 131
4,4'-DDT	7.6	U	150	163		ug/Kg	✱	108	63 - 131
Aldrin	7.6	U	150	133		ug/Kg	✱	89	74 - 140
Aldrin	7.6	U	150	134		ug/Kg	✱	89	74 - 140
alpha-BHC	2.3	U	150	125		ug/Kg	✱	83	72 - 142
alpha-BHC	2.3	U	150	128		ug/Kg	✱	85	72 - 142
beta-BHC	2.3	U	150	149		ug/Kg	✱	99	65 - 137
beta-BHC	2.3	U	150	147		ug/Kg	✱	98	65 - 137
delta-BHC	2.3	U	150	143		ug/Kg	✱	95	70 - 143
delta-BHC	2.3	U	150	146		ug/Kg	✱	97	70 - 143
Dieldrin	2.3	U	150	152		ug/Kg	✱	101	70 - 135
Dieldrin	2.3	U	150	147		ug/Kg	✱	97	70 - 135
Endosulfan I	7.6	U	150	137		ug/Kg	✱	91	68 - 135
Endosulfan I	7.6	U	150	144		ug/Kg	✱	96	68 - 135
Endosulfan II	7.6	U	150	147		ug/Kg	✱	98	64 - 130
Endosulfan II	7.6	U	150	149		ug/Kg	✱	99	64 - 130
Endosulfan sulfate	7.6	U	150	130		ug/Kg	✱	87	66 - 143
Endosulfan sulfate	7.6	U	150	131		ug/Kg	✱	87	66 - 143
Endrin	7.6	U	150	153		ug/Kg	✱	102	68 - 136
Endrin	7.6	U	150	149		ug/Kg	✱	99	68 - 136
Endrin aldehyde	7.6	U	150	120		ug/Kg	✱	80	68 - 132
Endrin aldehyde	7.6	U	150	120		ug/Kg	✱	80	68 - 132

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-251689-A-1-M MS

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827938

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin ketone	7.6	U	150	136		ug/Kg	✱	90	60 - 150
Endrin ketone	7.6	U	150	133		ug/Kg	✱	88	60 - 150
gamma-BHC (Lindane)	2.3	U	150	133		ug/Kg	✱	89	70 - 134
gamma-BHC (Lindane)	2.3	U	150	136		ug/Kg	✱	90	70 - 134
Heptachlor	7.6	U	150	127		ug/Kg	✱	84	69 - 134
Heptachlor	7.6	U	150	132		ug/Kg	✱	88	69 - 134
Heptachlor epoxide	7.6	U	150	142		ug/Kg	✱	94	70 - 135
Heptachlor epoxide	7.6	U	150	141		ug/Kg	✱	94	70 - 135
Methoxychlor	7.6	U	150	150		ug/Kg	✱	100	57 - 135
Methoxychlor	7.6	U	150	146		ug/Kg	✱	97	57 - 135
cis-Chlordane	7.6	U	150	143		ug/Kg	✱	95	70 - 136
cis-Chlordane	7.6	U	150	145		ug/Kg	✱	96	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	79		10 - 150
DCB Decachlorobiphenyl	106		10 - 150
Tetrachloro-m-xylene	48		10 - 133
Tetrachloro-m-xylene	48		10 - 133

Lab Sample ID: 460-251689-A-1-N MSD

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 827938

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	7.6	U	150	155		ug/Kg	✱	103	70 - 140	1	30
4,4'-DDD	7.6	U	150	155		ug/Kg	✱	103	70 - 140	3	30
4,4'-DDE	7.6	U	150	151		ug/Kg	✱	100	71 - 137	2	30
4,4'-DDE	7.6	U	150	157		ug/Kg	✱	105	71 - 137	2	30
4,4'-DDT	7.6	U	150	158		ug/Kg	✱	105	63 - 131	3	30
4,4'-DDT	7.6	U	150	161		ug/Kg	✱	107	63 - 131	1	30
Aldrin	7.6	U	150	132		ug/Kg	✱	88	74 - 140	1	30
Aldrin	7.6	U	150	138		ug/Kg	✱	92	74 - 140	4	30
alpha-BHC	2.3	U	150	126		ug/Kg	✱	84	72 - 142	1	30
alpha-BHC	2.3	U	150	135		ug/Kg	✱	90	72 - 142	5	30
beta-BHC	2.3	U	150	149		ug/Kg	✱	99	65 - 137	1	30
beta-BHC	2.3	U	150	153		ug/Kg	✱	102	65 - 137	3	30
delta-BHC	2.3	U	150	143		ug/Kg	✱	95	70 - 143	0	30
delta-BHC	2.3	U	150	152		ug/Kg	✱	101	70 - 143	4	30
Dieldrin	2.3	U	150	148		ug/Kg	✱	98	70 - 135	1	30
Dieldrin	2.3	U	150	150		ug/Kg	✱	100	70 - 135	1	30
Endosulfan I	7.6	U	150	135		ug/Kg	✱	90	68 - 135	1	30
Endosulfan I	7.6	U	150	148		ug/Kg	✱	98	68 - 135	2	30
Endosulfan II	7.6	U	150	144		ug/Kg	✱	96	64 - 130	2	30
Endosulfan II	7.6	U	150	152		ug/Kg	✱	101	64 - 130	2	30
Endosulfan sulfate	7.6	U	150	133		ug/Kg	✱	88	66 - 143	2	30
Endosulfan sulfate	7.6	U	150	138		ug/Kg	✱	91	66 - 143	5	30
Endrin	7.6	U	150	149		ug/Kg	✱	99	68 - 136	0	30
Endrin	7.6	U	150	152		ug/Kg	✱	101	68 - 136	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-251689-A-1-N MSD

Matrix: Solid

Analysis Batch: 827992

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 827938

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin aldehyde	7.6	U	150	124		ug/Kg	☼	82	68 - 132	3	30
Endrin aldehyde	7.6	U	150	125		ug/Kg	☼	83	68 - 132	4	30
Endrin ketone	7.6	U	150	136		ug/Kg	☼	91	60 - 150	3	30
Endrin ketone	7.6	U	150	138		ug/Kg	☼	92	60 - 150	2	30
gamma-BHC (Lindane)	2.3	U	150	134		ug/Kg	☼	89	70 - 134	0	30
gamma-BHC (Lindane)	2.3	U	150	142		ug/Kg	☼	94	70 - 134	4	30
Heptachlor	7.6	U	150	127		ug/Kg	☼	84	69 - 134	0	30
Heptachlor	7.6	U	150	138		ug/Kg	☼	92	69 - 134	5	30
Heptachlor epoxide	7.6	U	150	140		ug/Kg	☼	93	70 - 135	1	30
Heptachlor epoxide	7.6	U	150	145		ug/Kg	☼	97	70 - 135	2	30
Methoxychlor	7.6	U	150	147		ug/Kg	☼	98	57 - 135	2	30
Methoxychlor	7.6	U	150	147		ug/Kg	☼	98	57 - 135	0	30
cis-Chlordane	7.6	U	150	139		ug/Kg	☼	93	70 - 136	2	30
cis-Chlordane	7.6	U	150	148		ug/Kg	☼	99	70 - 136	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	78		10 - 150
DCB Decachlorobiphenyl	102		10 - 150
Tetrachloro-m-xylene	49		10 - 133
Tetrachloro-m-xylene	49		10 - 133

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-827937/1-A

Matrix: Solid

Analysis Batch: 827985

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827937

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1016	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1221	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1221	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1232	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1232	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1242	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1242	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1248	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1248	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1254	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1254	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1260	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1260	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor-1262	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor-1262	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1268	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Aroclor 1268	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/12/22 15:00	02/13/22 10:36	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-827937/1-A

Matrix: Solid

Analysis Batch: 827985

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827937

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	114		37 - 150	02/12/22 15:00	02/13/22 10:36	1
DCB Decachlorobiphenyl	89		37 - 150	02/12/22 15:00	02/13/22 10:36	1
Tetrachloro-m-xylene	72		54 - 150	02/12/22 15:00	02/13/22 10:36	1
Tetrachloro-m-xylene	92		54 - 150	02/12/22 15:00	02/13/22 10:36	1

Lab Sample ID: LCS 460-827937/2-A

Matrix: Solid

Analysis Batch: 827985

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	327		ug/Kg		98	65 - 133
Aroclor 1016	333	303		ug/Kg		91	65 - 133
Aroclor 1260	333	361		ug/Kg		108	71 - 150
Aroclor 1260	333	330		ug/Kg		99	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	93		37 - 150
DCB Decachlorobiphenyl	81		37 - 150
Tetrachloro-m-xylene	66		54 - 150
Tetrachloro-m-xylene	83		54 - 150

Lab Sample ID: LCSD 460-827937/3-A

Matrix: Solid

Analysis Batch: 827985

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827937

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	333	365		ug/Kg		110	65 - 133	11	30
Aroclor 1016	333	322		ug/Kg		97	65 - 133	6	30
Aroclor 1260	333	383		ug/Kg		115	71 - 150	6	30
Aroclor 1260	333	337		ug/Kg		101	71 - 150	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	99		37 - 150
DCB Decachlorobiphenyl	89		37 - 150
Tetrachloro-m-xylene	69		54 - 150
Tetrachloro-m-xylene	90		54 - 150

Lab Sample ID: 460-251689-A-1-J MS

Matrix: Solid

Analysis Batch: 827985

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827937

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	76	U	376	410		ug/Kg	⊛	109	65 - 133
Aroclor 1016	76	U	376	368		ug/Kg	⊛	98	65 - 133
Aroclor 1260	76	U	376	479		ug/Kg	⊛	127	71 - 150
Aroclor 1260	76	U	376	441		ug/Kg	⊛	117	71 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 460-251689-A-1-J MS

Matrix: Solid

Analysis Batch: 827985

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827937

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	102		37 - 150
DCB Decachlorobiphenyl	93		37 - 150
Tetrachloro-m-xylene	44	*	54 - 150
Tetrachloro-m-xylene	54		54 - 150

Lab Sample ID: 460-251689-A-1-K MSD

Matrix: Solid

Analysis Batch: 827985

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 827937

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	76	U	376	404		ug/Kg	⊛	107	65 - 133	2	30
Aroclor 1016	76	U	376	348		ug/Kg	⊛	92	65 - 133	6	30
Aroclor 1260	76	U	376	453		ug/Kg	⊛	120	71 - 150	5	30
Aroclor 1260	76	U	376	422		ug/Kg	⊛	112	71 - 150	5	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	100		37 - 150
DCB Decachlorobiphenyl	91		37 - 150
Tetrachloro-m-xylene	42	*	54 - 150
Tetrachloro-m-xylene	53	*	54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-827881/1-A

Matrix: Solid

Analysis Batch: 827986

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827881

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/12/22 00:30	02/13/22 08:42	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/12/22 00:30	02/13/22 08:42	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2,4-Dichlorophenylacetic acid	107		65 - 150	02/12/22 00:30	02/13/22 08:42	1			
2,4-Dichlorophenylacetic acid	118		65 - 150	02/12/22 00:30	02/13/22 08:42	1			

Lab Sample ID: LCS 460-827881/2-A

Matrix: Solid

Analysis Batch: 827986

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827881

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	41.7	43.9		ug/Kg		105	58 - 150
Silvex (2,4,5-TP)	41.7	54.6		ug/Kg		131	58 - 150

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	111		65 - 150
2,4-Dichlorophenylacetic acid	125		65 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 460-827881/3-A

Matrix: Solid

Analysis Batch: 827986

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827881

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	41.7	43.0		ug/Kg		103	58 - 150	2	30
Silvex (2,4,5-TP)	41.7	53.9		ug/Kg		129	58 - 150	1	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	111		65 - 150						
2,4-Dichlorophenylacetic acid	125		65 - 150						

Lab Sample ID: 460-252106-1 MS

Matrix: Solid

Analysis Batch: 827986

Client Sample ID: 133_PE-11

Prep Type: Total/NA

Prep Batch: 827881

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	38	U	48.0	54.0		ug/Kg	✱	112	58 - 150		
Silvex (2,4,5-TP)	38	U	48.0	85.2	*	ug/Kg	✱	177	58 - 150		
Surrogate	MS %Recovery	MS Qualifier	Limits								
2,4-Dichlorophenylacetic acid	114		65 - 150								
2,4-Dichlorophenylacetic acid	143		65 - 150								

Lab Sample ID: 460-252106-1 MSD

Matrix: Solid

Analysis Batch: 827986

Client Sample ID: 133_PE-11

Prep Type: Total/NA

Prep Batch: 827881

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	38	U	48.1	52.7	*	ug/Kg	✱	110	58 - 150	47	30
Silvex (2,4,5-TP)	38	U	48.1	77.2	*	ug/Kg	✱	161	58 - 150	35	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
2,4-Dichlorophenylacetic acid	112		65 - 150								
2,4-Dichlorophenylacetic acid	134		65 - 150								

Method: 537 (Modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-224769/1-B

Matrix: Solid

Analysis Batch: 225388

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 224769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.049	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
8:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.017	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
NEtFOSAA	0.20	U	0.20	0.022	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
NMeFOSAA	0.20	U	0.20	0.031	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorobutanesulfonic acid	0.40	U	0.40	0.36	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorobutanoic acid	0.20	U	0.20	0.024	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorodecanesulfonic acid	0.20	U	0.20	0.021	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorodecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorododecanoic acid	0.20	U	0.20	0.023	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluoroheptanesulfonic acid	0.20	U	0.20	0.020	ug/Kg		02/17/22 06:35	02/19/22 00:31	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-224769/1-B

Matrix: Solid

Analysis Batch: 225388

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 224769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid	0.20	U	0.20	0.024	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorohexanesulfonic acid	0.20	U	0.20	0.019	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorohexanoic acid	0.20	U	0.20	0.019	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorononanoic acid	0.20	U	0.20	0.023	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorooctanesulfonamide	0.20	U	0.20	0.021	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorooctanesulfonic acid	0.20	U	0.20	0.035	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorooctanoic acid	0.20	U	0.20	0.022	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluoropentanoic acid	0.20	U	0.20	0.024	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorotetradecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluorotridecanoic acid	0.20	U	0.20	0.021	ug/Kg		02/17/22 06:35	02/19/22 00:31	1
Perfluoroundecanoic acid	0.20	U	0.20	0.056	ug/Kg		02/17/22 06:35	02/19/22 00:31	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	133		10 - 200	02/17/22 06:35	02/19/22 00:31	1
M2-8:2 FTS	131		15 - 200	02/17/22 06:35	02/19/22 00:31	1
13C2 PFTeDA	130		10 - 169	02/17/22 06:35	02/19/22 00:31	1
13C3 PFBS	136		27 - 179	02/17/22 06:35	02/19/22 00:31	1
13C4 PFBA	132		28 - 153	02/17/22 06:35	02/19/22 00:31	1
13C4 PFHpA	130		10 - 178	02/17/22 06:35	02/19/22 00:31	1
13C5 PFPeA	130		24 - 161	02/17/22 06:35	02/19/22 00:31	1
13C8 PFOA	136		26 - 159	02/17/22 06:35	02/19/22 00:31	1
13C8 PFOS	140		41 - 154	02/17/22 06:35	02/19/22 00:31	1
d3-NMeFOSAA	90		10 - 178	02/17/22 06:35	02/19/22 00:31	1
d5-NEtFOSAA	96		10 - 193	02/17/22 06:35	02/19/22 00:31	1
13C3 PFHxS	146		24 - 171	02/17/22 06:35	02/19/22 00:31	1
13C5 PFHxA	133		10 - 174	02/17/22 06:35	02/19/22 00:31	1
13C6 PFDA	137		26 - 161	02/17/22 06:35	02/19/22 00:31	1
13C7 PFUnA	129		12 - 173	02/17/22 06:35	02/19/22 00:31	1
13C8 FOSA	123		14 - 163	02/17/22 06:35	02/19/22 00:31	1
13C2-PFDoDA	127		11 - 166	02/17/22 06:35	02/19/22 00:31	1
13C9 PFNA	140		26 - 165	02/17/22 06:35	02/19/22 00:31	1

Lab Sample ID: LCS 410-224769/2-B

Matrix: Solid

Analysis Batch: 225388

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 224769

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
6:2 Fluorotelomer sulfonic acid	2.37	2.051		ug/Kg		87	59 - 135
8:2 Fluorotelomer sulfonic acid	2.40	2.010		ug/Kg		84	55 - 133
NEtFOSAA	2.50	1.794		ug/Kg		72	57 - 127
NMeFOSAA	2.50	1.745		ug/Kg		70	60 - 134
Perfluorobutanesulfonic acid	2.21	1.607		ug/Kg		73	54 - 130
Perfluorobutanoic acid	2.50	2.001		ug/Kg		80	60 - 128
Perfluorodecanesulfonic acid	2.41	1.791		ug/Kg		74	57 - 132
Perfluorodecanoic acid	2.50	1.676		ug/Kg		67	56 - 133
Perfluorododecanoic acid	2.50	1.862		ug/Kg		74	60 - 135
Perfluoroheptanesulfonic acid	2.38	1.780		ug/Kg		75	59 - 132
Perfluoroheptanoic acid	2.50	1.892		ug/Kg		76	59 - 137
Perfluorohexanesulfonic acid	2.28	1.630		ug/Kg		71	59 - 129

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-224769/2-B

Matrix: Solid

Analysis Batch: 225388

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 224769

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	2.50	1.781		ug/Kg		71	59 - 132
Perfluorononanoic acid	2.50	1.911		ug/Kg		76	61 - 134
Perfluorooctanesulfonamide	2.50	1.977		ug/Kg		79	47 - 149
Perfluorooctanesulfonic acid	2.31	1.699		ug/Kg		73	61 - 126
Perfluorooctanoic acid	2.50	1.706		ug/Kg		68	59 - 131
Perfluoropentanoic acid	2.50	2.065		ug/Kg		83	58 - 134
Perfluorotetradecanoic acid	2.50	1.833		ug/Kg		73	62 - 134
Perfluorotridecanoic acid	2.50	1.875		ug/Kg		75	53 - 143
Perfluoroundecanoic acid	2.50	1.848		ug/Kg		74	60 - 134

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	113		10 - 200
M2-8:2 FTS	113		15 - 200
13C2 PFTeDA	108		10 - 169
13C3 PFBS	125		27 - 179
13C4 PFBA	118		28 - 153
13C4 PFHpA	114		10 - 178
13C5 PFPeA	119		24 - 161
13C8 PFOA	123		26 - 159
13C8 PFOS	121		41 - 154
d3-NMeFOSAA	82		10 - 178
d5-NEtFOSAA	87		10 - 193
13C3 PFHxS	123		24 - 171
13C5 PFHxA	117		10 - 174
13C6 PFDA	124		26 - 161
13C7 PFUnA	114		12 - 173
13C8 FOSA	100		14 - 163
13C2-PFDoDA	111		11 - 166
13C9 PFNA	121		26 - 165

Lab Sample ID: 460-252048-A-15-E MS

Matrix: Solid

Analysis Batch: 225388

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 224769

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
6:2 Fluorotelomer sulfonic acid	0.22	U	2.56	3.124		ug/Kg	✱	122	59 - 135
8:2 Fluorotelomer sulfonic acid	0.22	U	2.59	2.763		ug/Kg	✱	107	55 - 133
NEtFOSAA	0.22	U	2.70	2.770		ug/Kg	✱	103	57 - 127
NMeFOSAA	0.22	U	2.70	2.568		ug/Kg	✱	95	60 - 134
Perfluorobutanesulfonic acid	0.43	U	2.39	2.419		ug/Kg	✱	101	54 - 130
Perfluorobutanoic acid	0.22	U	2.70	2.923		ug/Kg	✱	108	60 - 128
Perfluorodecanesulfonic acid	0.22	U	2.60	2.633		ug/Kg	✱	101	57 - 132
Perfluorodecanoic acid	0.17	J	2.70	2.641		ug/Kg	✱	91	56 - 133
Perfluorododecanoic acid	0.22	U	2.70	2.779		ug/Kg	✱	103	60 - 135
Perfluoroheptanesulfonic acid	0.22	U	2.57	2.719		ug/Kg	✱	106	59 - 132
Perfluoroheptanoic acid	0.22	U	2.70	2.738		ug/Kg	✱	101	59 - 137
Perfluorohexanesulfonic acid	0.22	U	2.46	2.478		ug/Kg	✱	101	59 - 129
Perfluorohexanoic acid	0.22	U	2.70	2.736		ug/Kg	✱	101	59 - 132
Perfluorononanoic acid	0.055	J	2.70	2.783		ug/Kg	✱	101	61 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-252048-A-15-E MS

Matrix: Solid

Analysis Batch: 225388

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 224769

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonamide	0.22	U	2.70	2.845		ug/Kg	✱	105	47 - 149
Perfluorooctanesulfonic acid	0.072	J	2.50	2.528		ug/Kg	✱	98	61 - 126
Perfluorooctanoic acid	0.22	U	2.70	2.785		ug/Kg	✱	103	59 - 131
Perfluoropentanoic acid	0.22	U	2.70	3.072		ug/Kg	✱	114	58 - 134
Perfluorotetradecanoic acid	0.22	U	2.70	2.752		ug/Kg	✱	102	62 - 134
Perfluorotridecanoic acid	0.050	J	2.70	2.972		ug/Kg	✱	108	53 - 143
Perfluoroundecanoic acid	0.22	U	2.70	2.966		ug/Kg	✱	110	60 - 134

	MS %Recovery	MS Qualifier	Limits
<i>Isotope Dilution</i>			
M2-6:2 FTS	69		10 - 200
M2-8:2 FTS	74		15 - 200
13C2 PFTeDA	73		10 - 169
13C3 PFBS	82		27 - 179
13C4 PFBA	66		28 - 153
13C4 PFHpA	67		10 - 178
13C5 PFPeA	65		24 - 161
13C8 PFOA	68		26 - 159
13C8 PFOS	83		41 - 154
d3-NMeFOSAA	22		10 - 178
d5-NEtFOSAA	29		10 - 193
13C3 PFHxS	83		24 - 171
13C5 PFHxA	66		10 - 174
13C6 PFDA	75		26 - 161
13C7 PFUnA	67		12 - 173
13C8 FOSA	69		14 - 163
13C2-PFDoDA	65		11 - 166
13C9 PFNA	72		26 - 165

Lab Sample ID: 460-252048-A-15-F MSD

Matrix: Solid

Analysis Batch: 225388

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 224769

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
6:2 Fluorotelomer sulfonic acid	0.22	U	2.57	2.882		ug/Kg	✱	112	59 - 135	8	30
8:2 Fluorotelomer sulfonic acid	0.22	U	2.59	2.864		ug/Kg	✱	110	55 - 133	4	30
NEtFOSAA	0.22	U	2.71	2.628		ug/Kg	✱	97	57 - 127	5	30
NMeFOSAA	0.22	U	2.71	2.595		ug/Kg	✱	96	60 - 134	1	30
Perfluorobutanesulfonic acid	0.43	U	2.39	2.390		ug/Kg	✱	100	54 - 130	1	30
Perfluorobutanoic acid	0.22	U	2.71	2.976		ug/Kg	✱	110	60 - 128	2	30
Perfluorodecanesulfonic acid	0.22	U	2.61	2.585		ug/Kg	✱	99	57 - 132	2	30
Perfluorodecanoic acid	0.17	J	2.71	2.467		ug/Kg	✱	85	56 - 133	7	30
Perfluorododecanoic acid	0.22	U	2.71	2.878		ug/Kg	✱	106	60 - 135	3	30
Perfluoroheptanesulfonic acid	0.22	U	2.58	2.672		ug/Kg	✱	104	59 - 132	2	30
Perfluoroheptanoic acid	0.22	U	2.71	2.783		ug/Kg	✱	103	59 - 137	2	30
Perfluorohexanesulfonic acid	0.22	U	2.47	2.438		ug/Kg	✱	99	59 - 129	2	30
Perfluorohexanoic acid	0.22	U	2.71	2.703		ug/Kg	✱	100	59 - 132	1	30
Perfluorononanoic acid	0.055	J	2.71	2.872		ug/Kg	✱	104	61 - 134	3	30
Perfluorooctanesulfonamide	0.22	U	2.71	2.822		ug/Kg	✱	104	47 - 149	1	30
Perfluorooctanesulfonic acid	0.072	J	2.50	2.516		ug/Kg	✱	98	61 - 126	0	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-252048-A-15-F MSD

Matrix: Solid

Analysis Batch: 225388

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 224769

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid	0.22	U	2.71	2.661		ug/Kg	✱	98	59 - 131	5	30
Perfluoropentanoic acid	0.22	U	2.71	3.041		ug/Kg	✱	112	58 - 134	1	30
Perfluorotetradecanoic acid	0.22	U	2.71	2.753		ug/Kg	✱	102	62 - 134	0	30
Perfluorotridecanoic acid	0.050	J	2.71	3.061		ug/Kg	✱	111	53 - 143	3	30
Perfluoroundecanoic acid	0.22	U	2.71	2.797		ug/Kg	✱	103	60 - 134	6	30
MSD MSD											
Isotope Dilution	%Recovery	Qualifier	Limits								
M2-6:2 FTS	72		10 - 200								
M2-8:2 FTS	75		15 - 200								
13C2 PFTeDA	74		10 - 169								
13C3 PFBS	85		27 - 179								
13C4 PFBA	63		28 - 153								
13C4 PFHpA	66		10 - 178								
13C5 PFPeA	64		24 - 161								
13C8 PFOA	69		26 - 159								
13C8 PFOS	88		41 - 154								
d3-NMeFOSAA	28		10 - 178								
d5-NEtFOSAA	37		10 - 193								
13C3 PFHxS	88		24 - 171								
13C5 PFHxA	64		10 - 174								
13C6 PFDA	76		26 - 161								
13C7 PFUnA	68		12 - 173								
13C8 FOSA	69		14 - 163								
13C2-PFDoDA	64		11 - 166								
13C9 PFNA	72		26 - 165								

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-829242/1-A

Matrix: Solid

Analysis Batch: 829294

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829242

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Barium	2.0	U	2.0	0.15	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Chromium	2.0	U	2.0	0.27	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Copper	2.0	U	2.0	0.37	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Manganese	4.0	U	4.0	0.40	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Nickel	2.0	U	2.0	0.47	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Lead	0.60	U	0.60	0.20	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Selenium	1.3	U	1.3	0.13	mg/Kg		02/20/22 06:55	02/20/22 21:41	1
Zinc	8.0	U	8.0	3.1	mg/Kg		02/20/22 06:55	02/20/22 21:41	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-829242/2-A ^5

Matrix: Solid

Analysis Batch: 829294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829242

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	21.21		mg/Kg		63.1	48.2 - 73.5
Arsenic	140	136.8		mg/Kg		97.7	82.9 - 117.9
Barium	202	195.6		mg/Kg		96.8	81.2 - 118.3
Beryllium	42.6	40.15		mg/Kg		94.3	81.0 - 119.0
Cadmium	97.9	102.0		mg/Kg		104.2	80.0 - 119.5
Chromium	60.4	61.57		mg/Kg		101.9	80.3 - 119.7
Copper	122	127.7		mg/Kg		104.7	82.8 - 117.2
Manganese	457	467.6		mg/Kg		102.3	79.6 - 120.6
Nickel	151	159.3		mg/Kg		105.5	79.5 - 121.2
Lead	56.7	58.71		mg/Kg		103.5	82.9 - 116.9
Selenium	35.5	37.01		mg/Kg		104.3	77.5 - 122.3
Zinc	186	187.1		mg/Kg		100.6	79.0 - 121.0

Lab Sample ID: 460-252052-D-1-D MS ^5

Matrix: Solid

Analysis Batch: 829294

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 829242

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	5.2	U	5.16	5.47		mg/Kg	⊛	106	75 - 125
Arsenic	9.6		10.3	20.29		mg/Kg	⊛	104	75 - 125
Barium	17.3		10.3	29.25		mg/Kg	⊛	116	75 - 125
Beryllium	2.1	U	5.16	4.86		mg/Kg	⊛	94	75 - 125
Cadmium	5.2	U	5.16	5.47		mg/Kg	⊛	106	75 - 125
Chromium	8.8	J	10.3	19.36		mg/Kg	⊛	102	75 - 125
Copper	37.0		10.3	50.98	N	mg/Kg	⊛	136	75 - 125
Manganese	137		51.6	257.4	N	mg/Kg	⊛	232	75 - 125
Nickel	6.6	J	10.3	17.21		mg/Kg	⊛	103	75 - 125
Lead	50.4		5.16	58.74	4	mg/Kg	⊛	162	75 - 125
Selenium	6.5	U	10.3	10.53		mg/Kg	⊛	102	75 - 125
Zinc	32.3	J	51.6	84.25		mg/Kg	⊛	101	75 - 125

Lab Sample ID: 460-252052-D-1-C DU ^5

Matrix: Solid

Analysis Batch: 829294

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 829242

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	5.2	U	5.2	U	mg/Kg	⊛	NC	20
Arsenic	9.6		10.00		mg/Kg	⊛	4	20
Barium	17.3		15.38		mg/Kg	⊛	12	20
Beryllium	2.1	U	0.311	J	mg/Kg	⊛	NC	20
Cadmium	5.2	U	5.2	U	mg/Kg	⊛	NC	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-252052-D-1-C DU ^5

Matrix: Solid

Analysis Batch: 829294

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 829242

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	8.8	J	8.68	J	mg/Kg	✱	1	20
Copper	37.0		39.28		mg/Kg	✱	6	20
Manganese	137		132.7		mg/Kg	✱	4	20
Nickel	6.6	J	6.22	J	mg/Kg	✱	6	20
Lead	50.4		52.21		mg/Kg	✱	4	20
Selenium	6.5	U	6.5	U	mg/Kg	✱	NC	20
Zinc	32.3	J	31.38	J	mg/Kg	✱	3	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-828237/10-A

Matrix: Solid

Analysis Batch: 828345

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828237

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		02/15/22 02:59	02/15/22 06:32	1

Lab Sample ID: LCSSRM 460-828237/11-A ^40

Matrix: Solid

Analysis Batch: 828345

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828237

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	17.29		mg/Kg		104.8	74.5 - 124.8

Lab Sample ID: 460-252129-D-2-F MS

Matrix: Solid

Analysis Batch: 828345

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 828237

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.019	U	0.0936	0.103		mg/Kg	✱	110	80 - 120

Lab Sample ID: 460-252129-D-2-E DU

Matrix: Solid

Analysis Batch: 828345

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 828237

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.019	U	0.0111	J	mg/Kg	✱	NC	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-827715/1-A

Matrix: Solid

Analysis Batch: 827802

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827715

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		02/11/22 07:58	02/11/22 13:00	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS1 460-827715/3-A
Matrix: Solid
Analysis Batch: 827802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 827715

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	653.3		mg/Kg		92	80 - 120

Lab Sample ID: LCSSRM 460-827715/2-A
Matrix: Solid
Analysis Batch: 827802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 827715

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	15.9	15.09		mg/Kg		95.0	84.1 - 114.4

Lab Sample ID: 460-252106-1 MSI
Matrix: Solid
Analysis Batch: 827802

Client Sample ID: 133_PE-11
Prep Type: Total/NA
Prep Batch: 827715

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.3	U	819	763.9		mg/Kg	✱	93	75 - 125

Lab Sample ID: 460-252106-1 MSS
Matrix: Solid
Analysis Batch: 827802

Client Sample ID: 133_PE-11
Prep Type: Total/NA
Prep Batch: 827715

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.3	U	46.3	40.79		mg/Kg	✱	88	75 - 125

Lab Sample ID: 460-252106-1 DU
Matrix: Solid
Analysis Batch: 827802

Client Sample ID: 133_PE-11
Prep Type: Total/NA
Prep Batch: 827715

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.3	U	2.3	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-827830/1-A
Matrix: Solid
Analysis Batch: 827919

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 827830

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		02/11/22 18:45	02/12/22 15:25	1

Lab Sample ID: LCS1 460-827830/3-A
Matrix: Solid
Analysis Batch: 827919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 827830

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	675.3		mg/Kg		95	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSSRM 460-827830/2-A

Matrix: Solid

Analysis Batch: 827919

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827830

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	15.9	14.61		mg/Kg		92.0	84.1 - 114.4

Lab Sample ID: LCSSRM 460-827830/4-A

Matrix: Solid

Analysis Batch: 827919

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827830

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	109.0		mg/Kg		83.2	61.3 - 138.2

Lab Sample ID: 460-252165-D-9-K MSS

Matrix: Solid

Analysis Batch: 827919

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827830

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.3	U	45.1	36.43		mg/Kg	✱	81	75 - 125

Lab Sample ID: 460-252165-D-9-L MSI

Matrix: Solid

Analysis Batch: 827919

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827830

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.3	U	799	702.1		mg/Kg	✱	88	75 - 125

Lab Sample ID: 460-252165-D-9-J DU

Matrix: Solid

Analysis Batch: 827919

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 827830

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.3	U	2.3	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-827890/2-A

Matrix: Solid

Analysis Batch: 827930

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827890

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		02/12/22 06:37	02/12/22 13:37	1

Lab Sample ID: LCSSRM 460-827890/3-A ^20

Matrix: Solid

Analysis Batch: 827930

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827890

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	115	98.40		mg/Kg		85.6	25.6 - 125.2

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: MRL 460-827890/1-A
Matrix: Solid
Analysis Batch: 827930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 827890

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.00999	J	mg/L		100	50 - 150

Lab Sample ID: 460-252086-F-1-H MS
Matrix: Solid
Analysis Batch: 827930

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 827890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.26	U	5.02	6.40	N	mg/Kg	✱	127	11 - 108

Lab Sample ID: 460-252086-F-1-I MSD
Matrix: Solid
Analysis Batch: 827930

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 827890

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.26	U	5.21	6.85	N	mg/Kg	✱	132	11 - 108	7	40

Method: Moisture - Percent Moisture

Lab Sample ID: 460-252129-E-2 DU
Matrix: Solid
Analysis Batch: 827887

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	12.5		12.7		%		2	20
Percent Solids	87.5		87.3		%		0.3	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

GC/MS VOA

Prep Batch: 827391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	5035	
460-252106-2	134_PE-20	Total/NA	Solid	5035	

Analysis Batch: 827460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-3	135_TB-12	Total/NA	Water	8260D	
MB 460-827460/8	Method Blank	Total/NA	Water	8260D	
LCS 460-827460/4	Lab Control Sample	Total/NA	Water	8260D	
460-252110-A-5 MS	Matrix Spike	Total/NA	Water	8260D	
460-252110-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 827476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	8260D	827391
460-252106-2	134_PE-20	Total/NA	Solid	8260D	827391
MB 460-827476/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-827476/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-827476/4	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 827671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	3546	
460-252106-2	134_PE-20	Total/NA	Solid	3546	
MB 460-827671/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-827671/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-827671/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-252143-E-1-G MS	Matrix Spike	Total/NA	Solid	3546	
460-252143-E-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 827728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	8270E	827671
460-252106-2	134_PE-20	Total/NA	Solid	8270E	827671
MB 460-827671/1-A	Method Blank	Total/NA	Solid	8270E	827671
LCS 460-827671/2-A	Lab Control Sample	Total/NA	Solid	8270E	827671
LCSD 460-827671/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	827671
460-252143-E-1-G MS	Matrix Spike	Total/NA	Solid	8270E	827671
460-252143-E-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	827671

GC Semi VOA

Prep Batch: 827881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	8151A	
460-252106-2	134_PE-20	Total/NA	Solid	8151A	
MB 460-827881/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-827881/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-827881/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-252106-1 MS	133_PE-11	Total/NA	Solid	8151A	
460-252106-1 MSD	133_PE-11	Total/NA	Solid	8151A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

GC Semi VOA

Prep Batch: 827937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	3546	
460-252106-2	134_PE-20	Total/NA	Solid	3546	
MB 460-827937/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-827937/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-827937/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-251689-A-1-J MS	Matrix Spike	Total/NA	Solid	3546	
460-251689-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 827938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	3546	
460-252106-2	134_PE-20	Total/NA	Solid	3546	
MB 460-827938/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-827938/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-827938/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-251689-A-1-M MS	Matrix Spike	Total/NA	Solid	3546	
460-251689-A-1-N MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 827985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	8082A	827937
460-252106-2	134_PE-20	Total/NA	Solid	8082A	827937
MB 460-827937/1-A	Method Blank	Total/NA	Solid	8082A	827937
LCS 460-827937/2-A	Lab Control Sample	Total/NA	Solid	8082A	827937
LCSD 460-827937/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	827937
460-251689-A-1-J MS	Matrix Spike	Total/NA	Solid	8082A	827937
460-251689-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	827937

Analysis Batch: 827986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	8151A	827881
460-252106-2	134_PE-20	Total/NA	Solid	8151A	827881
MB 460-827881/1-A	Method Blank	Total/NA	Solid	8151A	827881
LCS 460-827881/2-A	Lab Control Sample	Total/NA	Solid	8151A	827881
LCSD 460-827881/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	827881
460-252106-1 MS	133_PE-11	Total/NA	Solid	8151A	827881
460-252106-1 MSD	133_PE-11	Total/NA	Solid	8151A	827881

Analysis Batch: 827992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	8081B	827938
460-252106-2	134_PE-20	Total/NA	Solid	8081B	827938
MB 460-827938/1-A	Method Blank	Total/NA	Solid	8081B	827938
LCS 460-827938/2-A	Lab Control Sample	Total/NA	Solid	8081B	827938
LCSD 460-827938/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	827938
460-251689-A-1-M MS	Matrix Spike	Total/NA	Solid	8081B	827938
460-251689-A-1-N MSD	Matrix Spike Duplicate	Total/NA	Solid	8081B	827938

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

LCMS

Prep Batch: 224769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	SHAKE	
460-252106-2	134_PE-20	Total/NA	Solid	SHAKE	
MB 410-224769/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-224769/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-252048-A-15-E MS	Matrix Spike	Total/NA	Solid	SHAKE	
460-252048-A-15-F MSD	Matrix Spike Duplicate	Total/NA	Solid	SHAKE	

Cleanup Batch: 225201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	Extract Aliquot	224769
460-252106-2	134_PE-20	Total/NA	Solid	Extract Aliquot	224769
MB 410-224769/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	224769
LCS 410-224769/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	224769
460-252048-A-15-E MS	Matrix Spike	Total/NA	Solid	Extract Aliquot	224769
460-252048-A-15-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Extract Aliquot	224769

Analysis Batch: 225388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	537 (Modified)	225201
460-252106-2	134_PE-20	Total/NA	Solid	537 (Modified)	225201
MB 410-224769/1-B	Method Blank	Total/NA	Solid	537 (Modified)	225201
LCS 410-224769/2-B	Lab Control Sample	Total/NA	Solid	537 (Modified)	225201
460-252048-A-15-E MS	Matrix Spike	Total/NA	Solid	537 (Modified)	225201
460-252048-A-15-F MSD	Matrix Spike Duplicate	Total/NA	Solid	537 (Modified)	225201

Metals

Prep Batch: 828237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	7471B	
460-252106-2	134_PE-20	Total/NA	Solid	7471B	
MB 460-828237/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-828237/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	
460-252129-D-2-F MS	Matrix Spike	Total/NA	Solid	7471B	
460-252129-D-2-E DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 828345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	7471B	828237
460-252106-2	134_PE-20	Total/NA	Solid	7471B	828237
MB 460-828237/10-A	Method Blank	Total/NA	Solid	7471B	828237
LCSSRM 460-828237/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	828237
460-252129-D-2-F MS	Matrix Spike	Total/NA	Solid	7471B	828237
460-252129-D-2-E DU	Duplicate	Total/NA	Solid	7471B	828237

Prep Batch: 829242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	3050B	
460-252106-2	134_PE-20	Total/NA	Solid	3050B	
MB 460-829242/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-829242/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Metals (Continued)

Prep Batch: 829242 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252052-D-1-D MS ^5	Matrix Spike	Total/NA	Solid	3050B	
460-252052-D-1-C DU ^5	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 829294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	6020B	829242
460-252106-2	134_PE-20	Total/NA	Solid	6020B	829242
MB 460-829242/1-A	Method Blank	Total/NA	Solid	6020B	829242
LCSSRM 460-829242/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	829242
460-252052-D-1-D MS ^5	Matrix Spike	Total/NA	Solid	6020B	829242
460-252052-D-1-C DU ^5	Duplicate	Total/NA	Solid	6020B	829242

General Chemistry

Prep Batch: 827715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	3060A	
MB 460-827715/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-827715/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-827715/2-A	Lab Control Sample	Total/NA	Solid	3060A	
460-252106-1 MSI	133_PE-11	Total/NA	Solid	3060A	
460-252106-1 MSS	133_PE-11	Total/NA	Solid	3060A	
460-252106-1 DU	133_PE-11	Total/NA	Solid	3060A	

Analysis Batch: 827802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	7196A	827715
MB 460-827715/1-A	Method Blank	Total/NA	Solid	7196A	827715
LCSI 460-827715/3-A	Lab Control Sample	Total/NA	Solid	7196A	827715
LCSSRM 460-827715/2-A	Lab Control Sample	Total/NA	Solid	7196A	827715
460-252106-1 MSI	133_PE-11	Total/NA	Solid	7196A	827715
460-252106-1 MSS	133_PE-11	Total/NA	Solid	7196A	827715
460-252106-1 DU	133_PE-11	Total/NA	Solid	7196A	827715

Prep Batch: 827830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-2	134_PE-20	Total/NA	Solid	3060A	
MB 460-827830/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-827830/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-827830/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-827830/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-252165-D-9-K MSS	Matrix Spike	Total/NA	Solid	3060A	
460-252165-D-9-L MSI	Matrix Spike	Total/NA	Solid	3060A	
460-252165-D-9-J DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 827887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	Moisture	
460-252106-2	134_PE-20	Total/NA	Solid	Moisture	
460-252140-F-14 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-252140-F-14 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

General Chemistry (Continued)

Analysis Batch: 827887 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252129-E-2 DU	Duplicate	Total/NA	Solid	Moisture	

Prep Batch: 827890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	9012B	
460-252106-2	134_PE-20	Total/NA	Solid	9012B	
MB 460-827890/2-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-827890/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
MRL 460-827890/1-A	Lab Control Sample	Total/NA	Solid	9012B	
460-252086-F-1-H MS	Matrix Spike	Total/NA	Solid	9012B	
460-252086-F-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	

Analysis Batch: 827919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-2	134_PE-20	Total/NA	Solid	7196A	827830
MB 460-827830/1-A	Method Blank	Total/NA	Solid	7196A	827830
LCSI 460-827830/3-A	Lab Control Sample	Total/NA	Solid	7196A	827830
LCSSRM 460-827830/2-A	Lab Control Sample	Total/NA	Solid	7196A	827830
LCSSRM 460-827830/4-A	Lab Control Sample	Total/NA	Solid	7196A	827830
460-252165-D-9-K MSS	Matrix Spike	Total/NA	Solid	7196A	827830
460-252165-D-9-L MSI	Matrix Spike	Total/NA	Solid	7196A	827830
460-252165-D-9-J DU	Duplicate	Total/NA	Solid	7196A	827830

Analysis Batch: 827930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	9012B	827890
460-252106-2	134_PE-20	Total/NA	Solid	9012B	827890
MB 460-827890/2-A	Method Blank	Total/NA	Solid	9012B	827890
LCSSRM 460-827890/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	827890
MRL 460-827890/1-A	Lab Control Sample	Total/NA	Solid	9012B	827890
460-252086-F-1-H MS	Matrix Spike	Total/NA	Solid	9012B	827890
460-252086-F-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	827890

Analysis Batch: 828079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252106-1	133_PE-11	Total/NA	Solid	7196A	
460-252106-2	134_PE-20	Total/NA	Solid	7196A	

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 133_PE-11

Date Collected: 02/07/22 15:10

Date Received: 02/08/22 18:00

Lab Sample ID: 460-252106-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	828079	02/13/22 21:23	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	827887	02/12/22 02:37	MIE	TAL EDI

Client Sample ID: 133_PE-11

Date Collected: 02/07/22 15:10

Date Received: 02/08/22 18:00

Lab Sample ID: 460-252106-1

Matrix: Solid

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			827391	02/09/22 17:57	JJC	TAL EDI
Total/NA	Analysis	8260D		1	827476	02/10/22 18:09	AAT	TAL EDI
Total/NA	Prep	3546			827671	02/10/22 23:58	GXY	TAL EDI
Total/NA	Analysis	8270E		1	827728	02/11/22 17:55	DAN	TAL EDI
Total/NA	Prep	3546			827938	02/12/22 15:03	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	827992	02/13/22 17:58	SAK	TAL EDI
Total/NA	Prep	3546			827937	02/12/22 15:00	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	827985	02/13/22 12:53	JHP	TAL EDI
Total/NA	Prep	8151A			827881	02/12/22 00:30	AFR	TAL EDI
Total/NA	Analysis	8151A		1	827986	02/13/22 09:49	SAK	TAL EDI
Total/NA	Prep	SHAKE			224769	02/17/22 06:35	VK3G	ELLE
Total/NA	Cleanup	Extract Aliquot			225201	02/17/22 18:44	QLP7	ELLE
Total/NA	Analysis	537 (Modified)		1	225388	02/19/22 04:13	ZG8V	ELLE
Total/NA	Prep	3050B			829242	02/20/22 06:55	SXC	TAL EDI
Total/NA	Analysis	6020B		5	829294	02/20/22 22:12	MDC	TAL EDI
Total/NA	Prep	7471B			828237	02/15/22 02:59	TJS	TAL EDI
Total/NA	Analysis	7471B		1	828345	02/15/22 07:18	TJS	TAL EDI
Total/NA	Prep	3060A			827715	02/11/22 07:58	RAK	TAL EDI
Total/NA	Analysis	7196A		1	827802	02/11/22 14:00	RAK	TAL EDI
Total/NA	Prep	9012B			827890	02/12/22 06:37	VBG	TAL EDI
Total/NA	Analysis	9012B		1	827930	02/12/22 13:48	VBG	TAL EDI

Client Sample ID: 134_PE-20

Date Collected: 02/07/22 15:20

Date Received: 02/08/22 18:00

Lab Sample ID: 460-252106-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	828079	02/13/22 21:23	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	827887	02/12/22 02:37	MIE	TAL EDI

Client Sample ID: 134_PE-20

Date Collected: 02/07/22 15:20

Date Received: 02/08/22 18:00

Lab Sample ID: 460-252106-2

Matrix: Solid

Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			827391	02/09/22 17:58	JJC	TAL EDI
Total/NA	Analysis	8260D		1	827476	02/10/22 18:32	AAT	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Client Sample ID: 134_PE-20

Lab Sample ID: 460-252106-2

Date Collected: 02/07/22 15:20

Matrix: Solid

Date Received: 02/08/22 18:00

Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			827671	02/10/22 23:58	GXY	TAL EDI
Total/NA	Analysis	8270E		1	827728	02/11/22 18:19	DAN	TAL EDI
Total/NA	Prep	3546			827938	02/12/22 15:03	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	827992	02/13/22 18:12	SAK	TAL EDI
Total/NA	Prep	3546			827937	02/12/22 15:00	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	827985	02/13/22 13:12	JHP	TAL EDI
Total/NA	Prep	8151A			827881	02/12/22 00:30	AFR	TAL EDI
Total/NA	Analysis	8151A		1	827986	02/13/22 10:03	SAK	TAL EDI
Total/NA	Prep	SHAKE			224769	02/17/22 06:35	VK3G	ELLE
Total/NA	Cleanup	Extract Aliquot			225201	02/17/22 18:44	QLP7	ELLE
Total/NA	Analysis	537 (Modified)		1	225388	02/19/22 04:24	ZG8V	ELLE
Total/NA	Prep	3050B			829242	02/20/22 06:55	SXC	TAL EDI
Total/NA	Analysis	6020B		5	829294	02/20/22 22:15	MDC	TAL EDI
Total/NA	Prep	7471B			828237	02/15/22 02:59	TJS	TAL EDI
Total/NA	Analysis	7471B		1	828345	02/15/22 07:20	TJS	TAL EDI
Total/NA	Prep	3060A			827830	02/11/22 18:45	OXG	TAL EDI
Total/NA	Analysis	7196A		1	827919	02/12/22 16:27	OXG	TAL EDI
Total/NA	Prep	9012B			827890	02/12/22 06:37	VBG	TAL EDI
Total/NA	Analysis	9012B		1	827930	02/12/22 13:49	VBG	TAL EDI

Client Sample ID: 135_TB-12

Lab Sample ID: 460-252106-3

Date Collected: 02/07/22 15:30

Matrix: Water

Date Received: 02/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	827460	02/10/22 12:03	SZD	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	02-22-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22 *
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22 *
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-22 *
Oklahoma	NELAP	R-205	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-22 *
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	02-28-22
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 (Modified)	Fluorinated Alkyl Substances	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252106-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-252106-1	133_PE-11	Solid	02/07/22 15:10	02/08/22 18:00
460-252106-2	134_PE-20	Solid	02/07/22 15:20	02/08/22 18:00
460-252106-3	135_TB-12	Water	02/07/22 15:30	02/08/22 18:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

352106

Chain of Custody Record

585862

eurofins

Environment Testing
TestAmerica

ELMSFORD

TAL-8210

Regulatory Program: ☐ DW ☐ WQS ☐ Other: **NYS DEC BCP**

Client Contact
Company Name: **CANGIAN**
Address: **300 Kimball Drive**
City/State/Zip: **Parsippany, NJ 07054**
Phone: _____
Fax: _____
Project Name: **2455 Third Ave**
Site: **1900 S 1701**
P O # _____

Project Manager: **B. Reinee** Date: **02/07/2022**
Tel/Email: **973 560 4700** Carrier: _____
Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below
☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

Site Contact: **A. Valenzuela** Lab Contact: _____
COC No: **1** of **1** COCs
Sampler: _____
For Lab Use Only:
Walk-in Client: _____
Lab Sampling: _____
Job / SDG No.: _____
Sample Specific Notes: _____

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs	SVOCs	PCRS	Pesticides	Herbicides	metals including hex and trivalent	Chromium	DFAS	1,4 dioxane	Cyanide
133-PE-11	02/07/22	15:10	G	S	8	N	N	X	X	X	X	X	X	X	X	X	X
134-PE-20	02/07/22	15:20	G	S	8	N	N	X	X	X	X	X	X	X	X	X	X
135-TB-12	02/07/22	15:30	A	Ag	2	N	N	X									

SHORT HOLD



460-252106 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____
Possible Hazard Identification: _____
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☒ Unknown ☐ Poison B ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Special Instructions/QC Requirements & Comments: **ASP-B and NYS DEC BCP**

Custody Seal No.: _____
Custody Seals Intact: ☐ Yes ☐ No
Relinquished by: **Andres Valenzuela** Date/Time: **2/7/22 11:00**
Relinquished by: **Lee** Date/Time: **2/8/22 17:00**
Relinquished by: **Lee** Date/Time: **2/8/22 16:00**
Relinquished by: **Lee** Date/Time: **2/8/22 16:00**

19182009

901256

IR Gun #

Cooler Temperatures

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Volume of Preservative used (ml):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials:

Date: 2-8-22

1000

3/8/2022

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-252106-1

Login Number: 252106

List Number: 1

Creator: Sgro, Angela M

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-252106-1

Login Number: 252106

List Number: 2

Creator: Cyms, Carolyn M

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 02/09/22 12:35 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-252220-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

3/4/2022 4:51:38 PM

Grace Chang, Project Manager II
(732)593-2579

Grace.Chang@Eurofinset.com

Designee for

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Grace Chang
Project Manager II
3/4/2022 4:51:38 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	10
Client Sample Results	11
Surrogate Summary	20
Isotope Dilution Summary	22
QC Sample Results	23
QC Association Summary	53
Lab Chronicle	58
Certification Summary	60
Method Summary	62
Sample Summary	63
Chain of Custody	64
Receipt Checklists	67



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Job ID: 460-252220-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-252220-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 02/09/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 02/11/2022 and analyzed on 02/13/2022 and 02/14/2022.

Internal standard (ISTD) response for 1,4-Dioxane-d8 for the following sample in analytical batch 460-828084 was outside acceptance criteria: (LB3 460-827994/1-A). This ISTD does not correspond to any of the detected target compounds reported from this analytical batch; therefore, the data have been reported.

1,2-Dichloroethane-d4 (Surr) failed the surrogate recovery criteria high for 136_PE-21 (460-252220-2). Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 135_TB-12 (460-252220-1) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 02/11/2022.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Job ID: 460-252220-1 (Continued)

Laboratory: Eurofins Edison (Continued)

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 02/12/2022 and analyzed on 02/13/2022 and 02/14/2022.

The continuing calibration verification (CCV) analyzed in batch 460-828068 was outside the method criteria for the following analyte(s): Dibenzo(a,h)anthracene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Several analytes failed the recovery criteria low for the MS of sample 460-252201-5 in batch 460-828038.

Several analytes failed the recovery criteria low for the MS of sample 137_PE-13MS (460-252220-3) in batch 460-828068.

Several analytes failed the recovery criteria low for the MSD of sample 137_PE-13MSD (460-252220-3) in batch 460-828068. 1,4-Dioxane exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 02/12/2022 and analyzed on 02/14/2022.

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 02/12/2022 and analyzed on 02/14/2022.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 02/14/2022 and analyzed on 02/15/2022.

The continuing calibration verification (CCV) associated with batch 460-828273 recovered above the upper control limit for Silvex (2,4,5-TP) and 2,4,5-T. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria high for 460-252365-E-1-B MSD. Refer to the QC report for details.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 02/18/2022 and analyzed on 02/23/2022.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Job ID: 460-252220-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared and analyzed on 02/21/2022.

Manganese failed the recovery criteria low for the MS of sample 136_PE-21MS (460-252220-2) in batch 460-829459.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 02/11/2022 and analyzed on 02/12/2022.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 02/15/2022.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 02/23/2022.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 02/12/2022.

Cyanide, Total failed the recovery criteria high for the MS of sample 136_PE-21MS (460-252220-2) in batch 460-827930.

Cyanide, Total failed the recovery criteria high for the MSD of sample 136_PE-21MSD (460-252220-2) in batch 460-827930.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Job ID: 460-252220-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 136_PE-21 (460-252220-2) and 137_PE-13 (460-252220-3) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 02/15/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 135_TB-12

Lab Sample ID: 460-252220-1

No Detections.

Client Sample ID: 136_PE-21

Lab Sample ID: 460-252220-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	1.3		0.98	0.10	mg/Kg	1	✳		6020B	Total/NA
Barium	11.0		2.0	0.14	mg/Kg	1	✳		6020B	Total/NA
Beryllium	0.30	J	0.39	0.056	mg/Kg	1	✳		6020B	Total/NA
Chromium	9.4		2.0	0.26	mg/Kg	1	✳		6020B	Total/NA
Copper	6.9		2.0	0.36	mg/Kg	1	✳		6020B	Total/NA
Manganese	232		3.9	0.39	mg/Kg	1	✳		6020B	Total/NA
Nickel	9.4		2.0	0.46	mg/Kg	1	✳		6020B	Total/NA
Lead	4.1		0.59	0.20	mg/Kg	1	✳		6020B	Total/NA
Zinc	18.0		7.8	3.0	mg/Kg	1	✳		6020B	Total/NA
Cr (III)	9.4		2.0	2.0	mg/Kg	1			7196A	Total/NA

Client Sample ID: 137_PE-13

Lab Sample ID: 460-252220-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
2-Butanone (MEK)	1.2	J	1.8	0.13	ug/Kg	1	✳		8260D	Total/NA
Acetone	5.1		2.1	2.0	ug/Kg	1	✳		8260D	Total/NA
Perfluoroheptanoic acid	0.041	J	0.22	0.026	ug/Kg	1	✳		537 (Modified)	Total/NA
Perfluorohexanoic acid	0.028	J	0.22	0.021	ug/Kg	1	✳		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid	0.050	J	0.22	0.038	ug/Kg	1	✳		537 (Modified)	Total/NA
Perfluorooctanoic acid	0.19	J	0.22	0.024	ug/Kg	1	✳		537 (Modified)	Total/NA
Arsenic	1.4		1.1	0.11	mg/Kg	1	✳		6020B	Total/NA
Barium	28.5		2.2	0.16	mg/Kg	1	✳		6020B	Total/NA
Beryllium	0.28	J	0.43	0.062	mg/Kg	1	✳		6020B	Total/NA
Chromium	8.4		2.2	0.29	mg/Kg	1	✳		6020B	Total/NA
Copper	7.1		2.2	0.40	mg/Kg	1	✳		6020B	Total/NA
Manganese	272		4.3	0.44	mg/Kg	1	✳		6020B	Total/NA
Nickel	8.6		2.2	0.51	mg/Kg	1	✳		6020B	Total/NA
Lead	4.6		0.65	0.22	mg/Kg	1	✳		6020B	Total/NA
Zinc	17.8		8.7	3.3	mg/Kg	1	✳		6020B	Total/NA
Cr (III)	8.4		2.0	2.0	mg/Kg	1			7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 135_TB-12

Lab Sample ID: 460-252220-1

Date Collected: 02/09/22 11:30

Matrix: Water

Date Received: 02/09/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/11/22 16:33	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/11/22 16:33	1
Acetone	5.0	U	5.0	4.4	ug/L			02/11/22 16:33	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/11/22 16:33	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/11/22 16:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/11/22 16:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/11/22 16:33	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/11/22 16:33	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/11/22 16:33	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/11/22 16:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/11/22 16:33	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/11/22 16:33	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/11/22 16:33	1
Benzene	1.0	U	1.0	0.20	ug/L			02/11/22 16:33	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/11/22 16:33	1
Toluene	1.0	U	1.0	0.38	ug/L			02/11/22 16:33	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/11/22 16:33	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/11/22 16:33	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/11/22 16:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/11/22 16:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/11/22 16:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/11/22 16:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/11/22 16:33	1
1,4-Dioxane	50	U	50	28	ug/L			02/11/22 16:33	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/11/22 16:33	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/11/22 16:33	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/11/22 16:33	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/11/22 16:33	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/11/22 16:33	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/11/22 16:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 123		02/11/22 16:33	1
Toluene-d8 (Surr)	91		80 - 120		02/11/22 16:33	1
4-Bromofluorobenzene	110		76 - 120		02/11/22 16:33	1
Dibromofluoromethane (Surr)	104		77 - 124		02/11/22 16:33	1

Client Sample ID: 136_PE-21

Lab Sample ID: 460-252220-2

Date Collected: 02/09/22 11:00

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 93.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.33	U	0.33	0.076	ug/Kg	✱	02/11/22 08:25	02/14/22 09:42	1
1,1-Dichloroethane	0.33	U	0.33	0.068	ug/Kg	✱	02/11/22 08:25	02/14/22 09:42	1
1,1-Dichloroethene	0.33	U	0.33	0.074	ug/Kg	✱	02/11/22 08:25	02/14/22 09:42	1
1,2,4-Trimethylbenzene	0.33	U	0.33	0.081	ug/Kg	✱	02/11/22 08:25	02/14/22 09:42	1
1,2-Dichlorobenzene	0.33	U	0.33	0.12	ug/Kg	✱	02/11/22 08:25	02/14/22 09:42	1
1,2-Dichloroethane	0.33	U	0.33	0.097	ug/Kg	✱	02/11/22 08:25	02/14/22 09:42	1
1,3,5-Trimethylbenzene	0.33	U	0.33	0.10	ug/Kg	✱	02/11/22 08:25	02/14/22 09:42	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 136_PE-21

Lab Sample ID: 460-252220-2

Date Collected: 02/09/22 11:00

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 93.8

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.33	U	0.33	0.12	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
1,4-Dichlorobenzene	0.33	U	0.33	0.074	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
1,4-Dioxane	33	U	33	3.0	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
2-Butanone (MEK)	1.6	U	1.6	0.12	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Acetone	2.0	U	2.0	1.9	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Benzene	0.33	U	0.33	0.085	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Carbon tetrachloride	0.33	U	0.33	0.13	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Chlorobenzene	0.33	U	0.33	0.058	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Chloroform	0.33	U	0.33	0.32	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
cis-1,2-Dichloroethene	0.33	U	0.33	0.12	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Ethylbenzene	0.33	U	0.33	0.065	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Methyl tert-butyl ether	0.33	U	0.33	0.17	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Methylene Chloride	0.66	U	0.66	0.38	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
n-Butylbenzene	0.33	U	0.33	0.097	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
N-Propylbenzene	0.33	U	0.33	0.057	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
sec-Butylbenzene	0.33	U	0.33	0.095	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
tert-Butylbenzene	0.33	U	0.33	0.091	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Tetrachloroethene	0.33	U	0.33	0.10	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Toluene	0.33	U	0.33	0.077	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
trans-1,2-Dichloroethene	0.33	U	0.33	0.081	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Trichloroethene	0.33	U	0.33	0.11	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Vinyl chloride	0.33	U	0.33	0.18	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1
Xylenes, Total	0.66	U	0.66	0.21	ug/Kg	☆	02/11/22 08:25	02/14/22 09:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	150	*	77 - 145	02/11/22 08:25	02/14/22 09:42	1
4-Bromofluorobenzene	95		70 - 139	02/11/22 08:25	02/14/22 09:42	1
Dibromofluoromethane (Surr)	119		48 - 150	02/11/22 08:25	02/14/22 09:42	1
Toluene-d8 (Surr)	109		80 - 120	02/11/22 08:25	02/14/22 09:42	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	350	U	350	13	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
2-Methylphenol	350	U	350	13	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
3 & 4 Methylphenol	350	U	350	22	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Pentachlorophenol	280	U	280	72	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Naphthalene	350	U	350	6.1	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Acenaphthylene	350	U	350	3.5	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Acenaphthene	350	U	350	10	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Dibenzofuran	350	U	350	5.0	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Fluorene	350	U	350	4.8	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Hexachlorobenzene	35	U	35	17	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Phenanthrene	350	U	350	6.2	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Anthracene	350	U	350	11	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Fluoranthene	350	U	350	12	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Pyrene	350	U	350	8.8	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Benzo[a]anthracene	35	U	35	12	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Chrysene	350	U	350	6.0	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Benzo[b]fluoranthene	35	U	35	9.1	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Benzo[k]fluoranthene	35	U	35	6.9	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 136_PE-21

Lab Sample ID: 460-252220-2

Date Collected: 02/09/22 11:00

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 93.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	35	U	35	9.4	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Indeno[1,2,3-cd]pyrene	35	U	35	14	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Dibenz(a,h)anthracene	35	U	35	15	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
Benzo[g,h,i]perylene	350	U	350	10	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1
1,4-Dioxane	35	U	35	31	ug/Kg	☆	02/12/22 14:42	02/13/22 18:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	33		11 - 104	02/12/22 14:42	02/13/22 18:00	1
Phenol-d5 (Surr)	34		15 - 100	02/12/22 14:42	02/13/22 18:00	1
Terphenyl-d14 (Surr)	37		12 - 126	02/12/22 14:42	02/13/22 18:00	1
2,4,6-Tribromophenol (Surr)	33		10 - 123	02/12/22 14:42	02/13/22 18:00	1
2-Fluorophenol (Surr)	34		10 - 105	02/12/22 14:42	02/13/22 18:00	1
2-Fluorobiphenyl	34		14 - 103	02/12/22 14:42	02/13/22 18:00	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.1	U	7.1	1.2	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
4,4'-DDE	7.1	U	7.1	0.84	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
4,4'-DDT	7.1	U	7.1	1.3	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Aldrin	7.1	U	7.1	1.1	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
alpha-BHC	2.1	U	2.1	0.72	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
beta-BHC	2.1	U	2.1	0.80	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Chlordane (technical)	71	U	71	17	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
delta-BHC	2.1	U	2.1	0.44	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Dieldrin	2.1	U	2.1	0.93	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Endosulfan I	7.1	U	7.1	1.1	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Endosulfan II	7.1	U	7.1	1.8	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Endosulfan sulfate	7.1	U	7.1	0.90	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Endrin	7.1	U	7.1	1.0	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Endrin aldehyde	7.1	U	7.1	1.7	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Endrin ketone	7.1	U	7.1	1.4	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
gamma-BHC (Lindane)	2.1	U	2.1	0.66	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Heptachlor	7.1	U	7.1	0.84	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Heptachlor epoxide	7.1	U	7.1	1.1	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Methoxychlor	7.1	U	7.1	1.6	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
Toxaphene	71	U	71	26	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1
cis-Chlordane	7.1	U	7.1	1.1	ug/Kg	☆	02/12/22 15:08	02/14/22 11:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		10 - 150	02/12/22 15:08	02/14/22 11:49	1
DCB Decachlorobiphenyl	98		10 - 150	02/12/22 15:08	02/14/22 11:49	1
Tetrachloro-m-xylene	64		10 - 133	02/12/22 15:08	02/14/22 11:49	1
Tetrachloro-m-xylene	65		10 - 133	02/12/22 15:08	02/14/22 11:49	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1
Aroclor 1221	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1
Aroclor 1232	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1
Aroclor 1242	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 136_PE-21

Lab Sample ID: 460-252220-2

Date Collected: 02/09/22 11:00

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 93.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1
Aroclor 1254	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1
Aroclor 1260	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1
Aroclor-1262	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1
Aroclor 1268	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1
Polychlorinated biphenyls, Total	71	U	71	19	ug/Kg	☆	02/12/22 15:05	02/14/22 02:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	107		37 - 150	02/12/22 15:05	02/14/22 02:55	1
DCB Decachlorobiphenyl	114		37 - 150	02/12/22 15:05	02/14/22 02:55	1
Tetrachloro-m-xylene	77		54 - 150	02/12/22 15:05	02/14/22 02:55	1
Tetrachloro-m-xylene	75		54 - 150	02/12/22 15:05	02/14/22 02:55	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	35	U	35	3.7	ug/Kg	☆	02/14/22 23:35	02/15/22 12:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	114		65 - 150	02/14/22 23:35	02/15/22 12:01	1
2,4-Dichlorophenylacetic acid	129		65 - 150	02/14/22 23:35	02/15/22 12:01	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.21	U	0.21	0.052	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
8:2 Fluorotelomer sulfonic acid	0.21	U	0.21	0.018	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
NEtFOSAA	0.21	U	0.21	0.024	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
NMeFOSAA	0.21	U	0.21	0.033	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorobutanesulfonic acid	0.43	U	0.43	0.39	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorobutanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorodecanesulfonic acid	0.21	U	0.21	0.022	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorodecanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorododecanoic acid	0.21	U	0.21	0.025	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluoroheptanesulfonic acid	0.21	U	0.21	0.021	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluoroheptanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorohexanesulfonic acid	0.21	U	0.21	0.020	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorohexanoic acid	0.21	U	0.21	0.020	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorononanoic acid	0.21	U	0.21	0.025	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorooctanesulfonamide	0.21	U	0.21	0.022	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorooctanesulfonic acid	0.21	U	0.21	0.037	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorooctanoic acid	0.21	U	0.21	0.024	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluoropentanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorotetradecanoic acid	0.21	U	0.21	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluorotridecanoic acid	0.21	U	0.21	0.022	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1
Perfluoroundecanoic acid	0.21	U	0.21	0.060	ug/Kg	☆	02/18/22 23:45	02/23/22 07:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	74		10 - 200	02/18/22 23:45	02/23/22 07:03	1
M2-8:2 FTS	71		15 - 200	02/18/22 23:45	02/23/22 07:03	1
13C2 PFTeDA	37		10 - 169	02/18/22 23:45	02/23/22 07:03	1
13C3 PFBS	84		27 - 179	02/18/22 23:45	02/23/22 07:03	1
13C4 PFBA	78		28 - 153	02/18/22 23:45	02/23/22 07:03	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 136_PE-21

Lab Sample ID: 460-252220-2

Date Collected: 02/09/22 11:00

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 93.8

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	74		10 - 178	02/18/22 23:45	02/23/22 07:03	1
13C5 PFPeA	78		24 - 161	02/18/22 23:45	02/23/22 07:03	1
13C8 PFOA	77		26 - 159	02/18/22 23:45	02/23/22 07:03	1
13C8 PFOS	83		41 - 154	02/18/22 23:45	02/23/22 07:03	1
d3-NMeFOSAA	18		10 - 178	02/18/22 23:45	02/23/22 07:03	1
d5-NeFOSAA	21		10 - 193	02/18/22 23:45	02/23/22 07:03	1
13C3 PFHxS	79		24 - 171	02/18/22 23:45	02/23/22 07:03	1
13C5 PFHxA	74		10 - 174	02/18/22 23:45	02/23/22 07:03	1
13C6 PFDA	79		26 - 161	02/18/22 23:45	02/23/22 07:03	1
13C7 PFUnA	73		12 - 173	02/18/22 23:45	02/23/22 07:03	1
13C8 FOSA	51		14 - 163	02/18/22 23:45	02/23/22 07:03	1
13C2-PFDoDA	61		11 - 166	02/18/22 23:45	02/23/22 07:03	1
13C9 PFNA	83		26 - 165	02/18/22 23:45	02/23/22 07:03	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.98	U	0.98	0.087	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Arsenic	1.3		0.98	0.10	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Barium	11.0		2.0	0.14	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Beryllium	0.30	J	0.39	0.056	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Cadmium	0.98	U	0.98	0.11	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Chromium	9.4		2.0	0.26	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Copper	6.9		2.0	0.36	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Manganese	232		3.9	0.39	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Nickel	9.4		2.0	0.46	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Lead	4.1		0.59	0.20	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Selenium	1.2	U	1.2	0.13	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1
Zinc	18.0		7.8	3.0	mg/Kg	✱	02/21/22 08:53	02/21/22 19:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	U	0.018	0.0082	mg/Kg	✱	02/15/22 04:15	02/15/22 10:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.4		2.0	2.0	mg/Kg			02/23/22 06:40	1
Cr (VI)	2.1	U	2.1	0.90	mg/Kg	✱	02/11/22 18:47	02/12/22 18:58	1
Cyanide, Total	0.23	U	0.23	0.12	mg/Kg	✱	02/12/22 08:57	02/12/22 13:23	1
Percent Moisture	6.2		1.0	1.0	%			02/15/22 13:25	1
Percent Solids	93.8		1.0	1.0	%			02/15/22 13:25	1

Client Sample ID: 137_PE-13

Lab Sample ID: 460-252220-3

Date Collected: 02/09/22 12:10

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 92.3

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.36	U	0.36	0.083	ug/Kg	✱	02/11/22 08:26	02/13/22 18:11	1
1,1-Dichloroethane	0.36	U	0.36	0.073	ug/Kg	✱	02/11/22 08:26	02/13/22 18:11	1
1,1-Dichloroethene	0.36	U	0.36	0.080	ug/Kg	✱	02/11/22 08:26	02/13/22 18:11	1
1,2,4-Trimethylbenzene	0.36	U	0.36	0.088	ug/Kg	✱	02/11/22 08:26	02/13/22 18:11	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 137_PE-13

Lab Sample ID: 460-252220-3

Date Collected: 02/09/22 12:10

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 92.3

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.36	U	0.36	0.13	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
1,2-Dichloroethane	0.36	U	0.36	0.11	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
1,3,5-Trimethylbenzene	0.36	U	0.36	0.11	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
1,3-Dichlorobenzene	0.36	U	0.36	0.13	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
1,4-Dichlorobenzene	0.36	U	0.36	0.080	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
1,4-Dioxane	36	U	36	3.3	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
2-Butanone (MEK)	1.2	J	1.8	0.13	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Acetone	5.1		2.1	2.0	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Benzene	0.36	U	0.36	0.092	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Carbon tetrachloride	0.36	U	0.36	0.14	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Chlorobenzene	0.36	U	0.36	0.063	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Chloroform	0.36	U	0.36	0.35	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
cis-1,2-Dichloroethene	0.36	U	0.36	0.13	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Ethylbenzene	0.36	U	0.36	0.071	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Methyl tert-butyl ether	0.36	U	0.36	0.18	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Methylene Chloride	0.71	U	0.71	0.41	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
n-Butylbenzene	0.36	U	0.36	0.10	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
N-Propylbenzene	0.36	U	0.36	0.062	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
sec-Butylbenzene	0.36	U	0.36	0.10	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
tert-Butylbenzene	0.36	U	0.36	0.098	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Tetrachloroethene	0.36	U	0.36	0.11	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Toluene	0.36	U	0.36	0.083	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
trans-1,2-Dichloroethene	0.36	U	0.36	0.088	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Trichloroethene	0.36	U	0.36	0.11	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Vinyl chloride	0.36	U	0.36	0.19	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1
Xylenes, Total	0.71	U	0.71	0.23	ug/Kg	☆	02/11/22 08:26	02/13/22 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	144		77 - 145	02/11/22 08:26	02/13/22 18:11	1
4-Bromofluorobenzene	91		70 - 139	02/11/22 08:26	02/13/22 18:11	1
Dibromofluoromethane (Surr)	118		48 - 150	02/11/22 08:26	02/13/22 18:11	1
Toluene-d8 (Surr)	103		80 - 120	02/11/22 08:26	02/13/22 18:11	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	360	U	360	13	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
2-Methylphenol	360	U	360	13	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
3 & 4 Methylphenol	360	U	360	22	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Pentachlorophenol	290	U	290	73	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Naphthalene	360	U	360	6.2	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Acenaphthylene	360	U	360	3.6	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Acenaphthene	360	U	360	10	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Dibenzofuran	360	U	360	5.0	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Fluorene	360	U	360	4.9	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Hexachlorobenzene	36	U	36	17	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Phenanthrene	360	U	360	6.3	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Anthracene	360	U	360	11	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Fluoranthene	360	U	360	13	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Pyrene	360	U	360	8.9	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Benzo[a]anthracene	36	U	36	12	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 137_PE-13

Lab Sample ID: 460-252220-3

Date Collected: 02/09/22 12:10

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 92.3

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	360	U	360	6.1	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Benzo[b]fluoranthene	36	U	36	9.3	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Benzo[k]fluoranthene	36	U	36	7.0	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Benzo[a]pyrene	36	U	36	9.5	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Indeno[1,2,3-cd]pyrene	36	U	36	14	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Dibenz(a,h)anthracene	36	U	36	16	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
Benzo[g,h,i]perylene	360	U	360	11	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1
1,4-Dioxane	36	U	36	31	ug/Kg	☆	02/12/22 14:46	02/14/22 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		11 - 104	02/12/22 14:46	02/14/22 01:16	1
Phenol-d5 (Surr)	61		15 - 100	02/12/22 14:46	02/14/22 01:16	1
Terphenyl-d14 (Surr)	73		12 - 126	02/12/22 14:46	02/14/22 01:16	1
2,4,6-Tribromophenol (Surr)	56		10 - 123	02/12/22 14:46	02/14/22 01:16	1
2-Fluorophenol (Surr)	62		10 - 105	02/12/22 14:46	02/14/22 01:16	1
2-Fluorobiphenyl	59		14 - 103	02/12/22 14:46	02/14/22 01:16	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.3	U	7.3	1.2	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
4,4'-DDE	7.3	U	7.3	0.86	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
4,4'-DDT	7.3	U	7.3	1.3	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Aldrin	7.3	U	7.3	1.1	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
alpha-BHC	2.2	U	2.2	0.74	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
beta-BHC	2.2	U	2.2	0.81	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Chlordane (technical)	73	U	73	18	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
delta-BHC	2.2	U	2.2	0.44	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Dieldrin	2.2	U	2.2	0.94	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Endosulfan I	7.3	U	7.3	1.1	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Endosulfan II	7.3	U	7.3	1.9	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Endosulfan sulfate	7.3	U	7.3	0.91	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Endrin	7.3	U	7.3	1.0	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Endrin aldehyde	7.3	U	7.3	1.7	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Endrin ketone	7.3	U	7.3	1.4	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
gamma-BHC (Lindane)	2.2	U	2.2	0.67	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Heptachlor	7.3	U	7.3	0.86	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Heptachlor epoxide	7.3	U	7.3	1.1	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Methoxychlor	7.3	U	7.3	1.7	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
Toxaphene	73	U	73	26	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1
cis-Chlordane	7.3	U	7.3	1.1	ug/Kg	☆	02/12/22 15:08	02/14/22 12:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		10 - 150	02/12/22 15:08	02/14/22 12:31	1
DCB Decachlorobiphenyl	79		10 - 150	02/12/22 15:08	02/14/22 12:31	1
Tetrachloro-m-xylene	48		10 - 133	02/12/22 15:08	02/14/22 12:31	1
Tetrachloro-m-xylene	47		10 - 133	02/12/22 15:08	02/14/22 12:31	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 137_PE-13

Lab Sample ID: 460-252220-3

Date Collected: 02/09/22 12:10

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 92.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1
Aroclor 1232	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1
Aroclor 1242	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1
Aroclor 1248	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1
Aroclor 1254	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1
Aroclor 1260	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1
Aroclor-1262	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1
Aroclor 1268	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1
Polychlorinated biphenyls, Total	73	U	73	19	ug/Kg	☆	02/12/22 15:05	02/14/22 03:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		37 - 150	02/12/22 15:05	02/14/22 03:12	1
DCB Decachlorobiphenyl	87		37 - 150	02/12/22 15:05	02/14/22 03:12	1
Tetrachloro-m-xylene	58		54 - 150	02/12/22 15:05	02/14/22 03:12	1
Tetrachloro-m-xylene	56		54 - 150	02/12/22 15:05	02/14/22 03:12	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	36	U	36	3.8	ug/Kg	☆	02/14/22 23:35	02/15/22 12:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		65 - 150	02/14/22 23:35	02/15/22 12:15	1
2,4-Dichlorophenylacetic acid	128		65 - 150	02/14/22 23:35	02/15/22 12:15	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.22	U	0.22	0.054	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
8:2 Fluorotelomer sulfonic acid	0.22	U	0.22	0.019	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
NEtFOSAA	0.22	U	0.22	0.024	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
NMeFOSAA	0.22	U	0.22	0.034	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorobutanesulfonic acid	0.44	U	0.44	0.40	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorobutanoic acid	0.22	U	0.22	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorodecanesulfonic acid	0.22	U	0.22	0.023	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorodecanoic acid	0.22	U	0.22	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorododecanoic acid	0.22	U	0.22	0.025	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluoroheptanesulfonic acid	0.22	U	0.22	0.022	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluoroheptanoic acid	0.041	J	0.22	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorohexanesulfonic acid	0.22	U	0.22	0.021	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorohexanoic acid	0.028	J	0.22	0.021	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorononanoic acid	0.22	U	0.22	0.025	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorooctanesulfonamide	0.22	U	0.22	0.023	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorooctanesulfonic acid	0.050	J	0.22	0.038	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorooctanoic acid	0.19	J	0.22	0.024	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluoropentanoic acid	0.22	U	0.22	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorotetradecanoic acid	0.22	U	0.22	0.026	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluorotridecanoic acid	0.22	U	0.22	0.023	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1
Perfluoroundecanoic acid	0.22	U	0.22	0.061	ug/Kg	☆	02/18/22 23:45	02/23/22 07:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	81		10 - 200	02/18/22 23:45	02/23/22 07:14	1
M2-8:2 FTS	81		15 - 200	02/18/22 23:45	02/23/22 07:14	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 137_PE-13

Lab Sample ID: 460-252220-3

Date Collected: 02/09/22 12:10

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 92.3

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	43		10 - 169	02/18/22 23:45	02/23/22 07:14	1
13C3 PFBS	85		27 - 179	02/18/22 23:45	02/23/22 07:14	1
13C4 PFBA	82		28 - 153	02/18/22 23:45	02/23/22 07:14	1
13C4 PFHpA	82		10 - 178	02/18/22 23:45	02/23/22 07:14	1
13C5 PFPeA	80		24 - 161	02/18/22 23:45	02/23/22 07:14	1
13C8 PFOA	87		26 - 159	02/18/22 23:45	02/23/22 07:14	1
13C8 PFOS	88		41 - 154	02/18/22 23:45	02/23/22 07:14	1
d3-NMeFOSAA	18		10 - 178	02/18/22 23:45	02/23/22 07:14	1
d5-NEtFOSAA	24		10 - 193	02/18/22 23:45	02/23/22 07:14	1
13C3 PFHxS	88		24 - 171	02/18/22 23:45	02/23/22 07:14	1
13C5 PFHxA	82		10 - 174	02/18/22 23:45	02/23/22 07:14	1
13C6 PFDA	79		26 - 161	02/18/22 23:45	02/23/22 07:14	1
13C7 PFUnA	80		12 - 173	02/18/22 23:45	02/23/22 07:14	1
13C8 FOSA	64		14 - 163	02/18/22 23:45	02/23/22 07:14	1
13C2-PFDoDA	65		11 - 166	02/18/22 23:45	02/23/22 07:14	1
13C9 PFNA	83		26 - 165	02/18/22 23:45	02/23/22 07:14	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.096	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Arsenic	1.4		1.1	0.11	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Barium	28.5		2.2	0.16	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Beryllium	0.28	J	0.43	0.062	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Chromium	8.4		2.2	0.29	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Copper	7.1		2.2	0.40	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Manganese	272		4.3	0.44	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Nickel	8.6		2.2	0.51	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Lead	4.6		0.65	0.22	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Selenium	1.4	U	1.4	0.14	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1
Zinc	17.8		8.7	3.3	mg/Kg	☆	02/21/22 08:53	02/21/22 20:00	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0081	mg/Kg	☆	02/15/22 04:15	02/15/22 10:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	8.4		2.0	2.0	mg/Kg			02/23/22 06:40	1
Cr (VI)	2.1	U	2.1	0.91	mg/Kg	☆	02/11/22 18:47	02/12/22 18:58	1
Cyanide, Total	0.23	U	0.23	0.13	mg/Kg	☆	02/12/22 08:57	02/12/22 13:26	1
Percent Moisture	7.7		1.0	1.0	%			02/15/22 13:25	1
Percent Solids	92.3		1.0	1.0	%			02/15/22 13:25	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-252220-2	136_PE-21	150 *	95	119	109
460-252220-3	137_PE-13	144	91	118	103
LCS 460-828001/4	Lab Control Sample	123	97	111	102
LCS 460-828085/3	Lab Control Sample	121	91	111	105
LCSD 460-828001/5	Lab Control Sample Dup	119	97	105	107
LCSD 460-828085/5	Lab Control Sample Dup	121	90	112	107
MB 460-828001/8	Method Blank	123	103	115	105
MB 460-828085/9	Method Blank	129	90	117	107

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-252220-1	135_TB-12	93	91	110	104
LCS 460-827716/3	Lab Control Sample	92	97	116	102
LCSD 460-827716/4	Lab Control Sample Dup	91	96	111	102
MB 460-827716/7	Method Blank	93	93	110	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-252201-F-5-J MS	Matrix Spike	60	60	68	62	60	65
460-252201-F-5-K MSD	Matrix Spike Duplicate	74	73	83	75	76	79
460-252220-2	136_PE-21	33	34	37	33	34	34
460-252220-3	137_PE-13	59	61	73	56	62	59
460-252220-3 MS	137_PE-13	54	55	64	60	56	54
460-252220-3 MSD	137_PE-13	44	50	53	48	49	45
LCS 460-827935/2-A	Lab Control Sample	73	72	82	75	73	78
LCS 460-827936/2-A	Lab Control Sample	74	79	85	80	79	75
LCSD 460-827935/3-A	Lab Control Sample Dup	74	73	82	78	74	77
LCSD 460-827936/3-A	Lab Control Sample Dup	76	77	87	83	77	76
MB 460-827935/1-A	Method Blank	77	79	87	80	82	78
MB 460-827936/1-A	Method Blank	71	75	84	71	75	72

Surrogate Legend

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-252220-2	136_PE-21	98	96	65	64
460-252220-3	137_PE-13	79	77	47	48
LCS 460-827940/2-A	Lab Control Sample	78	81	72	73
LCSD 460-827940/3-A	Lab Control Sample Dup	82	86	71	75
MB 460-827940/1-A	Method Blank	84	86	77	79

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-252207-E-6-A MS	Matrix Spike	112	106	83	85
460-252207-E-6-B MSD	Matrix Spike Duplicate	115	110	87	89
460-252220-2	136_PE-21	114	107	75	77
460-252220-3	137_PE-13	87	85	56	58
LCS 460-827939/2-A	Lab Control Sample	85	83	80	82
LCSD 460-827939/3-A	Lab Control Sample Dup	86	84	78	80
MB 460-827939/1-A	Method Blank	99	97	90	94

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1 (65-150)	DCPAA2 (65-150)
460-252220-2	136_PE-21	129	114
460-252220-3	137_PE-13	128	112
460-252365-E-1-B MSD	Matrix Spike Duplicate	152 *	120
460-252365-F-1-C MS	Matrix Spike	139	119
LCS 460-828229/2-A	Lab Control Sample	132	118
LCSD 460-828229/3-A	Lab Control Sample Dup	131	118
MB 460-828229/1-A	Method Blank	125	115

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (10-200)	M282FTS (15-200)	PFTDA (10-169)	C3PFBS (27-179)	PFBA (28-153)	C4PFHA (10-178)	PFPeA (24-161)	C8PFOA (26-159)
460-252109-A-38-E MS	Matrix Spike	86	73	57	90	75	78	78	83
460-252109-A-38-F MSD	Matrix Spike Duplicate	82	84	51	94	81	81	85	84
460-252220-2	136_PE-21	74	71	37	84	78	74	78	77
460-252220-3	137_PE-13	81	81	43	85	82	82	80	87
LCS 410-225582/2-B	Lab Control Sample	77	79	44	83	74	73	76	78
MB 410-225582/1-B	Method Blank	75	73	35	74	71	68	71	72

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C8PFOS (41-154)	d3NMFOS (10-178)	d5NEFOS (10-193)	C3PFHS (24-171)	13C5PHA (10-174)	C6PFDA (26-161)	13C7PUA (12-173)	PFOSA (14-163)
460-252109-A-38-E MS	Matrix Spike	91	20	30	91	78	82	86	55
460-252109-A-38-F MSD	Matrix Spike Duplicate	88	23	33	95	79	84	81	60
460-252220-2	136_PE-21	83	18	21	79	74	79	73	51
460-252220-3	137_PE-13	88	18	24	88	82	79	80	64
LCS 410-225582/2-B	Lab Control Sample	81	51	52	79	73	77	76	64
MB 410-225582/1-B	Method Blank	72	42	46	74	68	68	65	56

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (11-166)	C9PFNA (26-165)
460-252109-A-38-E MS	Matrix Spike	80	80
460-252109-A-38-F MSD	Matrix Spike Duplicate	79	78
460-252220-2	136_PE-21	61	83
460-252220-3	137_PE-13	65	83
LCS 410-225582/2-B	Lab Control Sample	65	75
MB 410-225582/1-B	Method Blank	52	71

Surrogate Legend

M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
PFDODA = 13C2-PFDODA
C9PFNA = 13C9 PFNA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-827716/7

Matrix: Water

Analysis Batch: 827716

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/11/22 10:30	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/11/22 10:30	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/11/22 10:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/11/22 10:30	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/11/22 10:30	1
Acetone	5.0	U	5.0	4.4	ug/L			02/11/22 10:30	1
Benzene	1.0	U	1.0	0.20	ug/L			02/11/22 10:30	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/11/22 10:30	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/11/22 10:30	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/11/22 10:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/11/22 10:30	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/11/22 10:30	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/11/22 10:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/11/22 10:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/11/22 10:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/11/22 10:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/11/22 10:30	1
1,4-Dioxane	50	U	50	28	ug/L			02/11/22 10:30	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/11/22 10:30	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/11/22 10:30	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/11/22 10:30	1
Toluene	1.0	U	1.0	0.38	ug/L			02/11/22 10:30	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/11/22 10:30	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/11/22 10:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/11/22 10:30	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/11/22 10:30	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/11/22 10:30	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/11/22 10:30	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/11/22 10:30	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/11/22 10:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 123		02/11/22 10:30	1
4-Bromofluorobenzene	110		76 - 120		02/11/22 10:30	1
Toluene-d8 (Surr)	93		80 - 120		02/11/22 10:30	1
Dibromofluoromethane (Surr)	102		77 - 124		02/11/22 10:30	1

Lab Sample ID: LCS 460-827716/3

Matrix: Water

Analysis Batch: 827716

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	20.5		ug/L		103	68 - 133
1,1-Dichloroethane	20.0	18.5		ug/L		92	73 - 130
1,2-Dichloroethane	20.0	19.0		ug/L		95	75 - 121
1,1,1-Trichloroethane	20.0	20.5		ug/L		102	68 - 128
2-Butanone (MEK)	100	100		ug/L		100	69 - 128
Acetone	100	87.7		ug/L		88	61 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-827716/3

Matrix: Water

Analysis Batch: 827716

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	19.5		ug/L		97	78 - 126
Carbon tetrachloride	20.0	21.2		ug/L		106	56 - 131
Chloroform	20.0	19.4		ug/L		97	78 - 125
Chlorobenzene	20.0	20.2		ug/L		101	80 - 119
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	78 - 121
Ethylbenzene	20.0	19.1		ug/L		96	78 - 120
Methylene Chloride	20.0	18.8		ug/L		94	74 - 127
m-Xylene & p-Xylene	20.0	19.3		ug/L		96	78 - 123
Methyl tert-butyl ether	20.0	18.2		ug/L		91	65 - 131
1,3-Dichlorobenzene	20.0	19.7		ug/L		98	80 - 121
1,4-Dichlorobenzene	20.0	19.5		ug/L		98	80 - 118
o-Xylene	20.0	19.5		ug/L		97	78 - 122
1,2-Dichlorobenzene	20.0	19.5		ug/L		97	79 - 122
1,4-Dioxane	400	388		ug/L		97	70 - 142
1,2,4-Trimethylbenzene	20.0	18.7		ug/L		94	75 - 125
Tetrachloroethene	20.0	22.4		ug/L		112	70 - 127
1,3,5-Trimethylbenzene	20.0	18.8		ug/L		94	75 - 125
Toluene	20.0	19.2		ug/L		96	78 - 119
N-Propylbenzene	20.0	18.2		ug/L		91	74 - 129
sec-Butylbenzene	20.0	18.8		ug/L		94	73 - 129
trans-1,2-Dichloroethene	20.0	20.5		ug/L		103	74 - 126
tert-Butylbenzene	20.0	18.7		ug/L		93	72 - 124
Trichloroethene	20.0	20.1		ug/L		100	71 - 121
n-Butylbenzene	20.0	18.3		ug/L		91	69 - 135
Vinyl chloride	20.0	19.1		ug/L		95	61 - 144
Xylenes, Total	40.0	38.7		ug/L		97	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		75 - 123
4-Bromofluorobenzene	116		76 - 120
Toluene-d8 (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	102		77 - 124

Lab Sample ID: LCSD 460-827716/4

Matrix: Water

Analysis Batch: 827716

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	20.6		ug/L		103	68 - 133	1	30
1,1-Dichloroethane	20.0	18.2		ug/L		91	73 - 130	2	30
1,2-Dichloroethane	20.0	18.6		ug/L		93	75 - 121	2	30
1,1,1-Trichloroethane	20.0	20.2		ug/L		101	68 - 128	1	30
2-Butanone (MEK)	100	97.3		ug/L		97	69 - 128	3	30
Acetone	100	83.3		ug/L		83	61 - 134	5	30
Benzene	20.0	18.6		ug/L		93	78 - 126	5	30
Carbon tetrachloride	20.0	20.4		ug/L		102	56 - 131	4	30
Chloroform	20.0	19.4		ug/L		97	78 - 125	0	30
Chlorobenzene	20.0	19.3		ug/L		97	80 - 119	4	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-827716/4

Matrix: Water

Analysis Batch: 827716

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	18.5		ug/L		92	78 - 121	4	30
Ethylbenzene	20.0	18.7		ug/L		94	78 - 120	2	30
Methylene Chloride	20.0	18.2		ug/L		91	74 - 127	4	30
m-Xylene & p-Xylene	20.0	18.7		ug/L		94	78 - 123	3	30
Methyl tert-butyl ether	20.0	18.5		ug/L		93	65 - 131	2	30
1,3-Dichlorobenzene	20.0	18.8		ug/L		94	80 - 121	5	30
1,4-Dichlorobenzene	20.0	19.0		ug/L		95	80 - 118	3	30
o-Xylene	20.0	18.8		ug/L		94	78 - 122	4	30
1,2-Dichlorobenzene	20.0	19.0		ug/L		95	79 - 122	2	30
1,4-Dioxane	400	405		ug/L		101	70 - 142	4	30
1,2,4-Trimethylbenzene	20.0	18.8		ug/L		94	75 - 125	1	30
Tetrachloroethene	20.0	21.3		ug/L		106	70 - 127	5	30
1,3,5-Trimethylbenzene	20.0	18.2		ug/L		91	75 - 125	3	30
Toluene	20.0	18.5		ug/L		92	78 - 119	4	30
N-Propylbenzene	20.0	17.9		ug/L		90	74 - 129	2	30
sec-Butylbenzene	20.0	18.2		ug/L		91	73 - 129	4	30
trans-1,2-Dichloroethene	20.0	19.1		ug/L		96	74 - 126	7	30
tert-Butylbenzene	20.0	18.0		ug/L		90	72 - 124	4	30
Trichloroethene	20.0	19.2		ug/L		96	71 - 121	4	30
n-Butylbenzene	20.0	18.4		ug/L		92	69 - 135	1	30
Vinyl chloride	20.0	17.8		ug/L		89	61 - 144	7	30
Xylenes, Total	40.0	37.5		ug/L		94	78 - 122	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		75 - 123
4-Bromofluorobenzene	111		76 - 120
Toluene-d8 (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	102		77 - 124

Lab Sample ID: MB 460-828001/8

Matrix: Solid

Analysis Batch: 828001

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			02/13/22 12:28	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			02/13/22 12:28	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			02/13/22 12:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			02/13/22 12:28	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			02/13/22 12:28	1
Acetone	6.0	U	6.0	5.7	ug/Kg			02/13/22 12:28	1
Benzene	1.0	U	1.0	0.26	ug/Kg			02/13/22 12:28	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			02/13/22 12:28	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			02/13/22 12:28	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			02/13/22 12:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			02/13/22 12:28	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			02/13/22 12:28	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			02/13/22 12:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			02/13/22 12:28	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-828001/8

Matrix: Solid

Analysis Batch: 828001

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			02/13/22 12:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			02/13/22 12:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			02/13/22 12:28	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			02/13/22 12:28	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			02/13/22 12:28	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			02/13/22 12:28	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			02/13/22 12:28	1
Toluene	1.0	U	1.0	0.23	ug/Kg			02/13/22 12:28	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			02/13/22 12:28	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/13/22 12:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			02/13/22 12:28	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			02/13/22 12:28	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			02/13/22 12:28	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/13/22 12:28	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			02/13/22 12:28	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			02/13/22 12:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	123		77 - 145		02/13/22 12:28	1
4-Bromofluorobenzene	103		70 - 139		02/13/22 12:28	1
Toluene-d8 (Surr)	105		80 - 120		02/13/22 12:28	1
Dibromofluoromethane (Surr)	115		48 - 150		02/13/22 12:28	1

Lab Sample ID: LCS 460-828001/4

Matrix: Solid

Analysis Batch: 828001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	21.2		ug/Kg		106	77 - 132
1,1-Dichloroethane	20.0	21.4		ug/Kg		107	76 - 129
1,2-Dichloroethane	20.0	23.3		ug/Kg		116	70 - 132
1,1,1-Trichloroethane	20.0	22.8		ug/Kg		114	78 - 132
2-Butanone (MEK)	100	84.6		ug/Kg		85	75 - 120
Acetone	100	83.1		ug/Kg		83	63 - 131
Benzene	20.0	19.4		ug/Kg		97	80 - 123
Carbon tetrachloride	20.0	22.9		ug/Kg		115	72 - 136
Chloroform	20.0	21.5		ug/Kg		107	79 - 126
Chlorobenzene	20.0	19.1		ug/Kg		96	80 - 120
cis-1,2-Dichloroethene	20.0	20.6		ug/Kg		103	80 - 123
Ethylbenzene	20.0	19.4		ug/Kg		97	80 - 120
Methylene Chloride	20.0	19.9		ug/Kg		99	76 - 127
m-Xylene & p-Xylene	20.0	19.5		ug/Kg		97	80 - 120
Methyl tert-butyl ether	20.0	20.3		ug/Kg		102	80 - 125
1,3-Dichlorobenzene	20.0	19.2		ug/Kg		96	80 - 120
1,4-Dichlorobenzene	20.0	18.7		ug/Kg		94	80 - 120
o-Xylene	20.0	19.0		ug/Kg		95	80 - 120
1,2-Dichlorobenzene	20.0	18.7		ug/Kg		94	80 - 120
1,4-Dioxane	400	441		ug/Kg		110	73 - 136

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-828001/4

Matrix: Solid

Analysis Batch: 828001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	19.7		ug/Kg		98	79 - 120
Tetrachloroethene	20.0	19.2		ug/Kg		96	78 - 123
1,3,5-Trimethylbenzene	20.0	19.7		ug/Kg		98	79 - 120
Toluene	20.0	19.1		ug/Kg		96	80 - 120
N-Propylbenzene	20.0	19.1		ug/Kg		95	78 - 120
sec-Butylbenzene	20.0	20.4		ug/Kg		102	78 - 120
trans-1,2-Dichloroethene	20.0	21.1		ug/Kg		106	78 - 128
tert-Butylbenzene	20.0	20.3		ug/Kg		101	76 - 120
Trichloroethene	20.0	20.3		ug/Kg		102	79 - 120
n-Butylbenzene	20.0	19.8		ug/Kg		99	77 - 123
Vinyl chloride	20.0	22.4		ug/Kg		112	56 - 147
Xylenes, Total	40.0	38.5		ug/Kg		96	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	123		77 - 145
4-Bromofluorobenzene	97		70 - 139
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	111		48 - 150

Lab Sample ID: LCSD 460-828001/5

Matrix: Solid

Analysis Batch: 828001

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	21.4		ug/Kg		107	77 - 132	1	30
1,1-Dichloroethane	20.0	21.7		ug/Kg		108	76 - 129	1	30
1,2-Dichloroethane	20.0	23.0		ug/Kg		115	70 - 132	1	30
1,1,1-Trichloroethane	20.0	23.3		ug/Kg		116	78 - 132	2	30
2-Butanone (MEK)	100	87.3		ug/Kg		87	75 - 120	3	30
Acetone	100	87.6		ug/Kg		88	63 - 131	5	30
Benzene	20.0	21.1		ug/Kg		105	80 - 123	8	30
Carbon tetrachloride	20.0	22.4		ug/Kg		112	72 - 136	2	30
Chloroform	20.0	21.4		ug/Kg		107	79 - 126	0	30
Chlorobenzene	20.0	20.6		ug/Kg		103	80 - 120	7	30
cis-1,2-Dichloroethene	20.0	20.3		ug/Kg		101	80 - 123	2	30
Ethylbenzene	20.0	20.2		ug/Kg		101	80 - 120	4	30
Methylene Chloride	20.0	20.3		ug/Kg		101	76 - 127	2	30
m-Xylene & p-Xylene	20.0	20.4		ug/Kg		102	80 - 120	5	30
Methyl tert-butyl ether	20.0	20.7		ug/Kg		104	80 - 125	2	30
1,3-Dichlorobenzene	20.0	20.3		ug/Kg		101	80 - 120	6	30
1,4-Dichlorobenzene	20.0	19.5		ug/Kg		97	80 - 120	4	30
o-Xylene	20.0	20.1		ug/Kg		101	80 - 120	6	30
1,2-Dichlorobenzene	20.0	19.1		ug/Kg		95	80 - 120	2	30
1,4-Dioxane	400	467		ug/Kg		117	73 - 136	6	30
1,2,4-Trimethylbenzene	20.0	20.7		ug/Kg		104	79 - 120	5	30
Tetrachloroethene	20.0	21.1		ug/Kg		106	78 - 123	9	30
1,3,5-Trimethylbenzene	20.0	20.6		ug/Kg		103	79 - 120	5	30
Toluene	20.0	20.8		ug/Kg		104	80 - 120	9	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-828001/5

Matrix: Solid

Analysis Batch: 828001

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Propylbenzene	20.0	20.0		ug/Kg		100	78 - 120	5	30
sec-Butylbenzene	20.0	21.3		ug/Kg		107	78 - 120	4	30
trans-1,2-Dichloroethene	20.0	20.4		ug/Kg		102	78 - 128	3	30
tert-Butylbenzene	20.0	20.6		ug/Kg		103	76 - 120	2	30
Trichloroethene	20.0	20.5		ug/Kg		102	79 - 120	1	30
n-Butylbenzene	20.0	20.6		ug/Kg		103	77 - 123	4	30
Vinyl chloride	20.0	21.7		ug/Kg		108	56 - 147	3	30
Xylenes, Total	40.0	40.6		ug/Kg		101	80 - 120	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	119		77 - 145
4-Bromofluorobenzene	97		70 - 139
Toluene-d8 (Surr)	107		80 - 120
Dibromofluoromethane (Surr)	105		48 - 150

Lab Sample ID: MB 460-828085/9

Matrix: Solid

Analysis Batch: 828085

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			02/14/22 08:54	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			02/14/22 08:54	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			02/14/22 08:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			02/14/22 08:54	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			02/14/22 08:54	1
Acetone	6.0	U	6.0	5.7	ug/Kg			02/14/22 08:54	1
Benzene	1.0	U	1.0	0.26	ug/Kg			02/14/22 08:54	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			02/14/22 08:54	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			02/14/22 08:54	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			02/14/22 08:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			02/14/22 08:54	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			02/14/22 08:54	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			02/14/22 08:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			02/14/22 08:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			02/14/22 08:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			02/14/22 08:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			02/14/22 08:54	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			02/14/22 08:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			02/14/22 08:54	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			02/14/22 08:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			02/14/22 08:54	1
Toluene	1.0	U	1.0	0.23	ug/Kg			02/14/22 08:54	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			02/14/22 08:54	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/14/22 08:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			02/14/22 08:54	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			02/14/22 08:54	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			02/14/22 08:54	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/14/22 08:54	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-828085/9

Matrix: Solid

Analysis Batch: 828085

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			02/14/22 08:54	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			02/14/22 08:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		77 - 145		02/14/22 08:54	1
4-Bromofluorobenzene	90		70 - 139		02/14/22 08:54	1
Toluene-d8 (Surr)	107		80 - 120		02/14/22 08:54	1
Dibromofluoromethane (Surr)	117		48 - 150		02/14/22 08:54	1

Lab Sample ID: LCS 460-828085/3

Matrix: Solid

Analysis Batch: 828085

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	20.1		ug/Kg		100	77 - 132
1,1-Dichloroethane	20.0	20.5		ug/Kg		102	76 - 129
1,2-Dichloroethane	20.0	22.8		ug/Kg		114	70 - 132
1,1,1-Trichloroethane	20.0	22.0		ug/Kg		110	78 - 132
2-Butanone (MEK)	100	87.8		ug/Kg		88	75 - 120
Acetone	100	86.1		ug/Kg		86	63 - 131
Benzene	20.0	19.4		ug/Kg		97	80 - 123
Carbon tetrachloride	20.0	21.2		ug/Kg		106	72 - 136
Chloroform	20.0	20.8		ug/Kg		104	79 - 126
Chlorobenzene	20.0	18.4		ug/Kg		92	80 - 120
cis-1,2-Dichloroethene	20.0	19.4		ug/Kg		97	80 - 123
Ethylbenzene	20.0	18.2		ug/Kg		91	80 - 120
Methylene Chloride	20.0	19.6		ug/Kg		98	76 - 127
m-Xylene & p-Xylene	20.0	19.2		ug/Kg		96	80 - 120
Methyl tert-butyl ether	20.0	20.1		ug/Kg		100	80 - 125
1,3-Dichlorobenzene	20.0	19.1		ug/Kg		95	80 - 120
1,4-Dichlorobenzene	20.0	18.4		ug/Kg		92	80 - 120
o-Xylene	20.0	18.0		ug/Kg		90	80 - 120
1,2-Dichlorobenzene	20.0	18.6		ug/Kg		93	80 - 120
1,4-Dioxane	400	476		ug/Kg		119	73 - 136
1,2,4-Trimethylbenzene	20.0	19.7		ug/Kg		99	79 - 120
Tetrachloroethene	20.0	18.8		ug/Kg		94	78 - 123
1,3,5-Trimethylbenzene	20.0	19.4		ug/Kg		97	79 - 120
Toluene	20.0	18.7		ug/Kg		94	80 - 120
N-Propylbenzene	20.0	18.4		ug/Kg		92	78 - 120
sec-Butylbenzene	20.0	20.2		ug/Kg		101	78 - 120
trans-1,2-Dichloroethene	20.0	19.7		ug/Kg		99	78 - 128
tert-Butylbenzene	20.0	19.6		ug/Kg		98	76 - 120
Trichloroethene	20.0	19.4		ug/Kg		97	79 - 120
n-Butylbenzene	20.0	19.9		ug/Kg		100	77 - 123
Vinyl chloride	20.0	21.0		ug/Kg		105	56 - 147
Xylenes, Total	40.0	37.2		ug/Kg		93	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-828085/3

Matrix: Solid

Analysis Batch: 828085

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	121		77 - 145
4-Bromofluorobenzene	91		70 - 139
Toluene-d8 (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	111		48 - 150

Lab Sample ID: LCSD 460-828085/5

Matrix: Solid

Analysis Batch: 828085

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	21.1		ug/Kg		105	77 - 132	5	30
1,1-Dichloroethane	20.0	21.3		ug/Kg		107	76 - 129	4	30
1,2-Dichloroethane	20.0	23.4		ug/Kg		117	70 - 132	3	30
1,1,1-Trichloroethane	20.0	22.7		ug/Kg		114	78 - 132	3	30
2-Butanone (MEK)	100	85.6		ug/Kg		86	75 - 120	3	30
Acetone	100	87.7		ug/Kg		88	63 - 131	2	30
Benzene	20.0	20.8		ug/Kg		104	80 - 123	7	30
Carbon tetrachloride	20.0	22.6		ug/Kg		113	72 - 136	6	30
Chloroform	20.0	21.8		ug/Kg		109	79 - 126	5	30
Chlorobenzene	20.0	19.8		ug/Kg		99	80 - 120	7	30
cis-1,2-Dichloroethene	20.0	20.9		ug/Kg		104	80 - 123	7	30
Ethylbenzene	20.0	20.2		ug/Kg		101	80 - 120	10	30
Methylene Chloride	20.0	20.1		ug/Kg		100	76 - 127	3	30
m-Xylene & p-Xylene	20.0	20.2		ug/Kg		101	80 - 120	5	30
Methyl tert-butyl ether	20.0	20.7		ug/Kg		103	80 - 125	3	30
1,3-Dichlorobenzene	20.0	20.1		ug/Kg		101	80 - 120	5	30
1,4-Dichlorobenzene	20.0	19.0		ug/Kg		95	80 - 120	3	30
o-Xylene	20.0	19.6		ug/Kg		98	80 - 120	8	30
1,2-Dichlorobenzene	20.0	19.3		ug/Kg		97	80 - 120	4	30
1,4-Dioxane	400	449		ug/Kg		112	73 - 136	6	30
1,2,4-Trimethylbenzene	20.0	20.8		ug/Kg		104	79 - 120	5	30
Tetrachloroethene	20.0	20.9		ug/Kg		104	78 - 123	10	30
1,3,5-Trimethylbenzene	20.0	20.9		ug/Kg		104	79 - 120	7	30
Toluene	20.0	20.1		ug/Kg		101	80 - 120	7	30
N-Propylbenzene	20.0	20.2		ug/Kg		101	78 - 120	10	30
sec-Butylbenzene	20.0	21.6		ug/Kg		108	78 - 120	7	30
trans-1,2-Dichloroethene	20.0	20.9		ug/Kg		104	78 - 128	6	30
tert-Butylbenzene	20.0	20.9		ug/Kg		104	76 - 120	6	30
Trichloroethene	20.0	20.6		ug/Kg		103	79 - 120	6	30
n-Butylbenzene	20.0	21.2		ug/Kg		106	77 - 123	6	30
Vinyl chloride	20.0	21.9		ug/Kg		109	56 - 147	4	30
Xylenes, Total	40.0	39.8		ug/Kg		99	80 - 120	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	121		77 - 145
4-Bromofluorobenzene	90		70 - 139
Toluene-d8 (Surr)	107		80 - 120
Dibromofluoromethane (Surr)	112		48 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-827935/1-A

Matrix: Solid

Analysis Batch: 828038

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827935

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
2-Methylphenol	330	U	330	12	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Pentachlorophenol	270	U	270	68	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Naphthalene	330	U	330	5.7	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Acenaphthylene	330	U	330	3.3	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Acenaphthene	330	U	330	9.4	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Dibenzofuran	330	U	330	4.6	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Fluorene	330	U	330	4.5	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Hexachlorobenzene	33	U	33	16	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Phenanthrene	330	U	330	5.8	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Anthracene	330	U	330	10	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Fluoranthene	330	U	330	12	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Pyrene	330	U	330	8.2	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Chrysene	330	U	330	5.6	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		02/12/22 14:42	02/13/22 16:46	1
1,4-Dioxane	33	U	33	29	ug/Kg		02/12/22 14:42	02/13/22 16:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	77		11 - 104	02/12/22 14:42	02/13/22 16:46	1
Phenol-d5 (Surr)	79		15 - 100	02/12/22 14:42	02/13/22 16:46	1
Terphenyl-d14 (Surr)	87		12 - 126	02/12/22 14:42	02/13/22 16:46	1
2,4,6-Tribromophenol (Surr)	80		10 - 123	02/12/22 14:42	02/13/22 16:46	1
2-Fluorophenol (Surr)	82		10 - 105	02/12/22 14:42	02/13/22 16:46	1
2-Fluorobiphenyl	78		14 - 103	02/12/22 14:42	02/13/22 16:46	1

Lab Sample ID: LCS 460-827935/2-A

Matrix: Solid

Analysis Batch: 828038

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	2700		ug/Kg		81	63 - 110
2-Methylphenol	3330	2610		ug/Kg		78	63 - 108
3 & 4 Methylphenol	3330	2640		ug/Kg		79	61 - 108
Pentachlorophenol	6670	5420		ug/Kg		81	44 - 126
Naphthalene	3330	2600		ug/Kg		78	63 - 106
Acenaphthylene	3330	2710		ug/Kg		81	64 - 108
Acenaphthene	3330	2930		ug/Kg		88	53 - 110
Dibenzofuran	3330	2820		ug/Kg		84	65 - 108
Fluorene	3330	2860		ug/Kg		86	65 - 109
Hexachlorobenzene	3330	2850		ug/Kg		85	61 - 113
Phenanthrene	3330	2830		ug/Kg		85	66 - 112

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-827935/2-A

Matrix: Solid

Analysis Batch: 828038

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	3330	2760		ug/Kg		83	67 - 114
Fluoranthene	3330	2730		ug/Kg		82	61 - 106
Pyrene	3330	3030		ug/Kg		91	61 - 111
Benzo[a]anthracene	3330	2850		ug/Kg		85	67 - 115
Chrysene	3330	2770		ug/Kg		83	71 - 122
Benzo[b]fluoranthene	3330	3030		ug/Kg		91	70 - 125
Benzo[k]fluoranthene	3330	2940		ug/Kg		88	67 - 115
Benzo[a]pyrene	3330	2740		ug/Kg		82	73 - 123
Indeno[1,2,3-cd]pyrene	3330	2960		ug/Kg		89	62 - 121
Dibenz(a,h)anthracene	3330	2930		ug/Kg		88	66 - 119
Benzo[g,h,i]perylene	3330	2810		ug/Kg		84	61 - 113
1,4-Dioxane	3330	1690		ug/Kg		51	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	73		11 - 104
Phenol-d5 (Surr)	72		15 - 100
Terphenyl-d14 (Surr)	82		12 - 126
2,4,6-Tribromophenol (Surr)	75		10 - 123
2-Fluorophenol (Surr)	73		10 - 105
2-Fluorobiphenyl	78		14 - 103

Lab Sample ID: LCSD 460-827935/3-A

Matrix: Solid

Analysis Batch: 828038

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827935

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	2790		ug/Kg		84	63 - 110	3	30
2-Methylphenol	3330	2670		ug/Kg		80	63 - 108	2	30
3 & 4 Methylphenol	3330	2670		ug/Kg		80	61 - 108	1	30
Pentachlorophenol	6670	5440		ug/Kg		82	44 - 126	0	30
Naphthalene	3330	2620		ug/Kg		79	63 - 106	1	30
Acenaphthylene	3330	2720		ug/Kg		81	64 - 108	0	30
Acenaphthene	3330	2970		ug/Kg		89	53 - 110	1	30
Dibenzofuran	3330	2890		ug/Kg		87	65 - 108	3	30
Fluorene	3330	2940		ug/Kg		88	65 - 109	3	30
Hexachlorobenzene	3330	2900		ug/Kg		87	61 - 113	2	30
Phenanthrene	3330	2790		ug/Kg		84	66 - 112	1	30
Anthracene	3330	2800		ug/Kg		84	67 - 114	2	30
Fluoranthene	3330	2730		ug/Kg		82	61 - 106	0	30
Pyrene	3330	2970		ug/Kg		89	61 - 111	2	30
Benzo[a]anthracene	3330	2830		ug/Kg		85	67 - 115	0	30
Chrysene	3330	2740		ug/Kg		82	71 - 122	1	30
Benzo[b]fluoranthene	3330	2940		ug/Kg		88	70 - 125	3	30
Benzo[k]fluoranthene	3330	3030		ug/Kg		91	67 - 115	3	30
Benzo[a]pyrene	3330	2650		ug/Kg		79	73 - 123	3	30
Indeno[1,2,3-cd]pyrene	3330	2900		ug/Kg		87	62 - 121	2	30
Dibenz(a,h)anthracene	3330	2970		ug/Kg		89	66 - 119	1	30
Benzo[g,h,i]perylene	3330	2810		ug/Kg		84	61 - 113	0	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-827935/3-A

Matrix: Solid

Analysis Batch: 828038

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827935

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	3330	1700		ug/Kg		51	31 - 81	0	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Nitrobenzene-d5 (Surr)	74		11 - 104						
Phenol-d5 (Surr)	73		15 - 100						
Terphenyl-d14 (Surr)	82		12 - 126						
2,4,6-Tribromophenol (Surr)	78		10 - 123						
2-Fluorophenol (Surr)	74		10 - 105						
2-Fluorobiphenyl	77		14 - 103						

Lab Sample ID: 460-252201-F-5-J MS

Matrix: Solid

Analysis Batch: 828038

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827935

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	460	U	4610	3120		ug/Kg	✱	68	63 - 110
2-Methylphenol	460	U	4610	3060		ug/Kg	✱	67	63 - 108
3 & 4 Methylphenol	460	U	4610	3070		ug/Kg	✱	67	61 - 108
Pentachlorophenol	370	U	9210	5880		ug/Kg	✱	64	44 - 126
Naphthalene	20	J	4610	3030		ug/Kg	✱	65	63 - 106
Acenaphthylene	110	J	4610	3140		ug/Kg	✱	66	64 - 108
Acenaphthene	40	J	4610	3100		ug/Kg	✱	66	53 - 110
Dibenzofuran	22	J	4610	3250		ug/Kg	✱	70	65 - 108
Fluorene	66	J	4610	3310		ug/Kg	✱	70	65 - 109
Hexachlorobenzene	46	U	4610	3300		ug/Kg	✱	72	61 - 113
Phenanthrene	800		4610	3540	*	ug/Kg	✱	60	66 - 112
Anthracene	210	J	4610	3400		ug/Kg	✱	69	67 - 114
Fluoranthene	1600		4610	3800	*	ug/Kg	✱	47	61 - 106
Pyrene	1900		4610	4070	*	ug/Kg	✱	47	61 - 111
Benzo[a]anthracene	830		4610	3640	*	ug/Kg	✱	61	67 - 115
Chrysene	900		4610	3520	*	ug/Kg	✱	57	71 - 122
Benzo[b]fluoranthene	1100		4610	3780	*	ug/Kg	✱	57	70 - 125
Benzo[k]fluoranthene	440		4610	3660		ug/Kg	✱	70	67 - 115
Benzo[a]pyrene	800		4610	3470	*	ug/Kg	✱	58	73 - 123
Indeno[1,2,3-cd]pyrene	710		4610	4030		ug/Kg	✱	72	62 - 121
Dibenz(a,h)anthracene	140		4610	3660		ug/Kg	✱	76	66 - 119
Benzo[g,h,i]perylene	640		4610	3760		ug/Kg	✱	68	61 - 113
1,4-Dioxane	46	U	4610	1970		ug/Kg	✱	43	31 - 81
Surrogate	MS %Recovery	MS Qualifier	Limits						
Nitrobenzene-d5 (Surr)	60		11 - 104						
Phenol-d5 (Surr)	60		15 - 100						
Terphenyl-d14 (Surr)	68		12 - 126						
2,4,6-Tribromophenol (Surr)	62		10 - 123						
2-Fluorophenol (Surr)	60		10 - 105						
2-Fluorobiphenyl	65		14 - 103						

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-252201-F-5-K MSD

Matrix: Solid

Analysis Batch: 828038

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 827935

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	460	U	4610	3890		ug/Kg	✱	84	63 - 110	22	30
2-Methylphenol	460	U	4610	3690		ug/Kg	✱	80	63 - 108	18	30
3 & 4 Methylphenol	460	U	4610	3680		ug/Kg	✱	80	61 - 108	18	30
Pentachlorophenol	370	U	9210	7380		ug/Kg	✱	80	44 - 126	23	30
Naphthalene	20	J	4610	3720		ug/Kg	✱	80	63 - 106	21	30
Acenaphthylene	110	J	4610	3800		ug/Kg	✱	80	64 - 108	19	30
Acenaphthene	40	J	4610	3750		ug/Kg	✱	81	53 - 110	19	30
Dibenzofuran	22	J	4610	3970		ug/Kg	✱	86	65 - 108	20	30
Fluorene	66	J	4610	4050		ug/Kg	✱	87	65 - 109	20	30
Hexachlorobenzene	46	U	4610	3940		ug/Kg	✱	86	61 - 113	18	30
Phenanthrene	800		4610	4320		ug/Kg	✱	76	66 - 112	20	30
Anthracene	210	J	4610	4080		ug/Kg	✱	84	67 - 114	18	30
Fluoranthene	1600		4610	4570		ug/Kg	✱	64	61 - 106	19	30
Pyrene	1900		4610	5150		ug/Kg	✱	70	61 - 111	23	30
Benzo[a]anthracene	830		4610	4390		ug/Kg	✱	77	67 - 115	19	30
Chrysene	900		4610	4340		ug/Kg	✱	75	71 - 122	21	30
Benzo[b]fluoranthene	1100		4610	4760		ug/Kg	✱	79	70 - 125	23	30
Benzo[k]fluoranthene	440		4610	4660		ug/Kg	✱	92	67 - 115	24	30
Benzo[a]pyrene	800		4610	4400		ug/Kg	✱	78	73 - 123	24	30
Indeno[1,2,3-cd]pyrene	710		4610	5040		ug/Kg	✱	94	62 - 121	22	30
Dibenz(a,h)anthracene	140		4610	4470		ug/Kg	✱	94	66 - 119	20	30
Benzo[g,h,i]perylene	640		4610	4800		ug/Kg	✱	90	61 - 113	24	30
1,4-Dioxane	46	U	4610	2550		ug/Kg	✱	55	31 - 81	26	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	74		11 - 104
Phenol-d5 (Surr)	73		15 - 100
Terphenyl-d14 (Surr)	83		12 - 126
2,4,6-Tribromophenol (Surr)	75		10 - 123
2-Fluorophenol (Surr)	76		10 - 105
2-Fluorobiphenyl	79		14 - 103

Lab Sample ID: MB 460-827936/1-A

Matrix: Solid

Analysis Batch: 828068

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
2-Methylphenol	330	U	330	12	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Pentachlorophenol	270	U	270	68	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Naphthalene	330	U	330	5.7	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Acenaphthylene	330	U	330	3.3	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Acenaphthene	330	U	330	9.4	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Dibenzofuran	330	U	330	4.6	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Fluorene	330	U	330	4.5	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Hexachlorobenzene	33	U	33	16	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Phenanthrene	330	U	330	5.8	ug/Kg		02/12/22 14:46	02/13/22 19:32	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-827936/1-A

Matrix: Solid

Analysis Batch: 828068

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	330	U	330	10	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Fluoranthene	330	U	330	12	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Pyrene	330	U	330	8.2	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Chrysene	330	U	330	5.6	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		02/12/22 14:46	02/13/22 19:32	1
1,4-Dioxane	33	U	33	29	ug/Kg		02/12/22 14:46	02/13/22 19:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	71		11 - 104	02/12/22 14:46	02/13/22 19:32	1
Phenol-d5 (Surr)	75		15 - 100	02/12/22 14:46	02/13/22 19:32	1
Terphenyl-d14 (Surr)	84		12 - 126	02/12/22 14:46	02/13/22 19:32	1
2,4,6-Tribromophenol (Surr)	71		10 - 123	02/12/22 14:46	02/13/22 19:32	1
2-Fluorophenol (Surr)	75		10 - 105	02/12/22 14:46	02/13/22 19:32	1
2-Fluorobiphenyl	72		14 - 103	02/12/22 14:46	02/13/22 19:32	1

Lab Sample ID: LCS 460-827936/2-A

Matrix: Solid

Analysis Batch: 828068

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	3000		ug/Kg		90	63 - 110
2-Methylphenol	3330	3050		ug/Kg		92	63 - 108
3 & 4 Methylphenol	3330	3090		ug/Kg		93	61 - 108
Pentachlorophenol	6670	5510		ug/Kg		83	44 - 126
Naphthalene	3330	2880		ug/Kg		87	63 - 106
Acenaphthylene	3330	2830		ug/Kg		85	64 - 108
Acenaphthene	3330	3110		ug/Kg		93	53 - 110
Dibenzofuran	3330	3060		ug/Kg		92	65 - 108
Fluorene	3330	3140		ug/Kg		94	65 - 109
Hexachlorobenzene	3330	3090		ug/Kg		93	61 - 113
Phenanthrene	3330	3070		ug/Kg		92	66 - 112
Anthracene	3330	3090		ug/Kg		93	67 - 114
Fluoranthene	3330	3130		ug/Kg		94	61 - 106
Pyrene	3330	3210		ug/Kg		96	61 - 111
Benzo[a]anthracene	3330	3250		ug/Kg		97	67 - 115
Chrysene	3330	3150		ug/Kg		95	71 - 122
Benzo[b]fluoranthene	3330	3570		ug/Kg		107	70 - 125
Benzo[k]fluoranthene	3330	3570		ug/Kg		107	67 - 115
Benzo[a]pyrene	3330	3280		ug/Kg		98	73 - 123
Indeno[1,2,3-cd]pyrene	3330	3180		ug/Kg		95	62 - 121
Dibenz(a,h)anthracene	3330	3810		ug/Kg		114	66 - 119
Benzo[g,h,i]perylene	3330	3280		ug/Kg		98	61 - 113

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-827936/2-A

Matrix: Solid

Analysis Batch: 828068

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	3330	1750		ug/Kg		53	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	74		11 - 104
Phenol-d5 (Surr)	79		15 - 100
Terphenyl-d14 (Surr)	85		12 - 126
2,4,6-Tribromophenol (Surr)	80		10 - 123
2-Fluorophenol (Surr)	79		10 - 105
2-Fluorobiphenyl	75		14 - 103

Lab Sample ID: LCSD 460-827936/3-A

Matrix: Solid

Analysis Batch: 828068

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827936

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Phenol	3330	2960		ug/Kg		89	63 - 110	2	30
2-Methylphenol	3330	3000		ug/Kg		90	63 - 108	2	30
3 & 4 Methylphenol	3330	3010		ug/Kg		90	61 - 108	3	30
Pentachlorophenol	6670	5640		ug/Kg		85	44 - 126	2	30
Naphthalene	3330	2880		ug/Kg		86	63 - 106	0	30
Acenaphthylene	3330	2890		ug/Kg		87	64 - 108	2	30
Acenaphthene	3330	3150		ug/Kg		94	53 - 110	1	30
Dibenzofuran	3330	3070		ug/Kg		92	65 - 108	0	30
Fluorene	3330	3170		ug/Kg		95	65 - 109	1	30
Hexachlorobenzene	3330	3130		ug/Kg		94	61 - 113	2	30
Phenanthrene	3330	3090		ug/Kg		93	66 - 112	1	30
Anthracene	3330	3140		ug/Kg		94	67 - 114	2	30
Fluoranthene	3330	3140		ug/Kg		94	61 - 106	0	30
Pyrene	3330	3210		ug/Kg		96	61 - 111	0	30
Benzo[a]anthracene	3330	3280		ug/Kg		99	67 - 115	1	30
Chrysene	3330	3190		ug/Kg		96	71 - 122	1	30
Benzo[b]fluoranthene	3330	3490		ug/Kg		105	70 - 125	2	30
Benzo[k]fluoranthene	3330	3600		ug/Kg		108	67 - 115	1	30
Benzo[a]pyrene	3330	3190		ug/Kg		96	73 - 123	3	30
Indeno[1,2,3-cd]pyrene	3330	3120		ug/Kg		94	62 - 121	2	30
Dibenz(a,h)anthracene	3330	3790		ug/Kg		114	66 - 119	0	30
Benzo[g,h,i]perylene	3330	3300		ug/Kg		99	61 - 113	1	30
1,4-Dioxane	3330	1720		ug/Kg		52	31 - 81	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	76		11 - 104
Phenol-d5 (Surr)	77		15 - 100
Terphenyl-d14 (Surr)	87		12 - 126
2,4,6-Tribromophenol (Surr)	83		10 - 123
2-Fluorophenol (Surr)	77		10 - 105
2-Fluorobiphenyl	76		14 - 103

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-252220-3 MS

Matrix: Solid

Analysis Batch: 828068

Client Sample ID: 137_PE-13

Prep Type: Total/NA

Prep Batch: 827936

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	360	U	3610	2220	*	ug/Kg	✱	61	63 - 110
2-Methylphenol	360	U	3610	2300		ug/Kg	✱	64	63 - 108
3 & 4 Methylphenol	360	U	3610	2250		ug/Kg	✱	62	61 - 108
Pentachlorophenol	290	U	7220	4270		ug/Kg	✱	59	44 - 126
Naphthalene	360	U	3610	2140	*	ug/Kg	✱	59	63 - 106
Acenaphthylene	360	U	3610	2150	*	ug/Kg	✱	60	64 - 108
Acenaphthene	360	U	3610	2360		ug/Kg	✱	65	53 - 110
Dibenzofuran	360	U	3610	2330		ug/Kg	✱	65	65 - 108
Fluorene	360	U	3610	2400		ug/Kg	✱	66	65 - 109
Hexachlorobenzene	36	U	3610	2430		ug/Kg	✱	67	61 - 113
Phenanthrene	360	U	3610	2380		ug/Kg	✱	66	66 - 112
Anthracene	360	U	3610	2400	*	ug/Kg	✱	66	67 - 114
Fluoranthene	360	U	3610	2410		ug/Kg	✱	67	61 - 106
Pyrene	360	U	3610	2460		ug/Kg	✱	68	61 - 111
Benzo[a]anthracene	36	U	3610	2470		ug/Kg	✱	69	67 - 115
Chrysene	360	U	3610	2420	*	ug/Kg	✱	67	71 - 122
Benzo[b]fluoranthene	36	U	3610	2630		ug/Kg	✱	73	70 - 125
Benzo[k]fluoranthene	36	U	3610	2710		ug/Kg	✱	75	67 - 115
Benzo[a]pyrene	36	U	3610	2450	*	ug/Kg	✱	68	73 - 123
Indeno[1,2,3-cd]pyrene	36	U	3610	2490		ug/Kg	✱	69	62 - 121
Dibenz(a,h)anthracene	36	U	3610	2920		ug/Kg	✱	81	66 - 119
Benzo[g,h,i]perylene	360	U	3610	2560		ug/Kg	✱	71	61 - 113
1,4-Dioxane	36	U	3610	1550		ug/Kg	✱	43	31 - 81

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	54		11 - 104
Phenol-d5 (Surr)	55		15 - 100
Terphenyl-d14 (Surr)	64		12 - 126
2,4,6-Tribromophenol (Surr)	60		10 - 123
2-Fluorophenol (Surr)	56		10 - 105
2-Fluorobiphenyl	54		14 - 103

Lab Sample ID: 460-252220-3 MSD

Matrix: Solid

Analysis Batch: 828068

Client Sample ID: 137_PE-13

Prep Type: Total/NA

Prep Batch: 827936

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	360	U	3610	2000	*	ug/Kg	✱	56	63 - 110	10	30
2-Methylphenol	360	U	3610	2020	*	ug/Kg	✱	56	63 - 108	13	30
3 & 4 Methylphenol	360	U	3610	2030	*	ug/Kg	✱	56	61 - 108	11	30
Pentachlorophenol	290	U	7220	3510		ug/Kg	✱	49	44 - 126	20	30
Naphthalene	360	U	3610	1710	*	ug/Kg	✱	47	63 - 106	23	30
Acenaphthylene	360	U	3610	1860	*	ug/Kg	✱	51	64 - 108	15	30
Acenaphthene	360	U	3610	2000		ug/Kg	✱	56	53 - 110	16	30
Dibenzofuran	360	U	3610	2010	*	ug/Kg	✱	56	65 - 108	15	30
Fluorene	360	U	3610	2040	*	ug/Kg	✱	57	65 - 109	16	30
Hexachlorobenzene	36	U	3610	2020	*	ug/Kg	✱	56	61 - 113	18	30
Phenanthrene	360	U	3610	1990	*	ug/Kg	✱	55	66 - 112	18	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-252220-3 MSD

Matrix: Solid

Analysis Batch: 828068

Client Sample ID: 137_PE-13

Prep Type: Total/NA

Prep Batch: 827936

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	360	U	3610	2020	*	ug/Kg	⊛	56	67 - 114	17	30
Fluoranthene	360	U	3610	2000	*	ug/Kg	⊛	55	61 - 106	19	30
Pyrene	360	U	3610	2090	*	ug/Kg	⊛	58	61 - 111	16	30
Benzo[a]anthracene	36	U	3610	2080	*	ug/Kg	⊛	58	67 - 115	17	30
Chrysene	360	U	3610	2050	*	ug/Kg	⊛	57	71 - 122	17	30
Benzo[b]fluoranthene	36	U	3610	2150	*	ug/Kg	⊛	60	70 - 125	20	30
Benzo[k]fluoranthene	36	U	3610	2290	*	ug/Kg	⊛	64	67 - 115	17	30
Benzo[a]pyrene	36	U	3610	2020	*	ug/Kg	⊛	56	73 - 123	19	30
Indeno[1,2,3-cd]pyrene	36	U	3610	2170	*	ug/Kg	⊛	60	62 - 121	14	30
Dibenz(a,h)anthracene	36	U	3610	2450	*	ug/Kg	⊛	68	66 - 119	17	30
Benzo[g,h,i]perylene	360	U	3610	2150	*	ug/Kg	⊛	59	61 - 113	17	30
1,4-Dioxane	36	U	3610	1040	*	ug/Kg	⊛	29	31 - 81	40	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	44		11 - 104
Phenol-d5 (Surr)	50		15 - 100
Terphenyl-d14 (Surr)	53		12 - 126
2,4,6-Tribromophenol (Surr)	48		10 - 123
2-Fluorophenol (Surr)	49		10 - 105
2-Fluorobiphenyl	45		14 - 103

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-827940/1-A

Matrix: Solid

Analysis Batch: 828099

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/12/22 15:08	02/14/22 08:51	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-827940/1-A

Matrix: Solid

Analysis Batch: 828099

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Toxaphene	67	U	67	24	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Toxaphene	67	U	67	24	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/12/22 15:08	02/14/22 08:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		10 - 150				02/12/22 15:08	02/14/22 08:51	1
DCB Decachlorobiphenyl	84		10 - 150				02/12/22 15:08	02/14/22 08:51	1
Tetrachloro-m-xylene	79		10 - 133				02/12/22 15:08	02/14/22 08:51	1
Tetrachloro-m-xylene	77		10 - 133				02/12/22 15:08	02/14/22 08:51	1

Lab Sample ID: LCS 460-827940/2-A

Matrix: Solid

Analysis Batch: 828099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	133	142		ug/Kg		107	70 - 140
4,4'-DDD	133	141		ug/Kg		106	70 - 140
4,4'-DDE	133	136		ug/Kg		102	71 - 137
4,4'-DDE	133	127		ug/Kg		95	71 - 137
4,4'-DDT	133	143		ug/Kg		107	63 - 131
4,4'-DDT	133	136		ug/Kg		102	63 - 131
Aldrin	133	128		ug/Kg		96	74 - 140
Aldrin	133	125		ug/Kg		94	74 - 140
alpha-BHC	133	131		ug/Kg		99	72 - 142
alpha-BHC	133	132		ug/Kg		99	72 - 142
beta-BHC	133	135		ug/Kg		101	65 - 137
beta-BHC	133	140		ug/Kg		105	65 - 137
delta-BHC	133	129		ug/Kg		97	70 - 143
delta-BHC	133	140		ug/Kg		105	70 - 143
Dieldrin	133	138		ug/Kg		104	70 - 135

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-827940/2-A

Matrix: Solid

Analysis Batch: 828099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dieldrin	133	134		ug/Kg		101	70 - 135
Endosulfan I	133	136		ug/Kg		102	68 - 135
Endosulfan I	133	129		ug/Kg		97	68 - 135
Endosulfan II	133	143		ug/Kg		107	64 - 130
Endosulfan II	133	142		ug/Kg		107	64 - 130
Endosulfan sulfate	133	138		ug/Kg		103	66 - 143
Endosulfan sulfate	133	137		ug/Kg		103	66 - 143
Endrin	133	130		ug/Kg		98	68 - 136
Endrin	133	133		ug/Kg		99	68 - 136
Endrin aldehyde	133	135		ug/Kg		101	68 - 132
Endrin aldehyde	133	136		ug/Kg		102	68 - 132
Endrin ketone	133	147		ug/Kg		110	60 - 150
Endrin ketone	133	139		ug/Kg		104	60 - 150
gamma-BHC (Lindane)	133	135		ug/Kg		101	70 - 134
gamma-BHC (Lindane)	133	133		ug/Kg		100	70 - 134
Heptachlor	133	138		ug/Kg		104	69 - 134
Heptachlor	133	131		ug/Kg		98	69 - 134
Heptachlor epoxide	133	135		ug/Kg		101	70 - 135
Heptachlor epoxide	133	131		ug/Kg		98	70 - 135
Methoxychlor	133	141		ug/Kg		106	57 - 135
Methoxychlor	133	133		ug/Kg		100	57 - 135
cis-Chlordane	133	135		ug/Kg		101	70 - 136
cis-Chlordane	133	130		ug/Kg		98	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	81		10 - 150
DCB Decachlorobiphenyl	78		10 - 150
Tetrachloro-m-xylene	73		10 - 133
Tetrachloro-m-xylene	72		10 - 133

Lab Sample ID: LCSD 460-827940/3-A

Matrix: Solid

Analysis Batch: 828099

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827940

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	133	150		ug/Kg		112	70 - 140	5	30
4,4'-DDD	133	143		ug/Kg		107	70 - 140	1	30
4,4'-DDE	133	143		ug/Kg		107	71 - 137	5	30
4,4'-DDE	133	128		ug/Kg		96	71 - 137	1	30
4,4'-DDT	133	150		ug/Kg		113	63 - 131	5	30
4,4'-DDT	133	140		ug/Kg		105	63 - 131	3	30
Aldrin	133	132		ug/Kg		99	74 - 140	3	30
Aldrin	133	126		ug/Kg		95	74 - 140	1	30
alpha-BHC	133	135		ug/Kg		101	72 - 142	3	30
alpha-BHC	133	132		ug/Kg		99	72 - 142	0	30
beta-BHC	133	139		ug/Kg		104	65 - 137	3	30
beta-BHC	133	139		ug/Kg		104	65 - 137	0	30
delta-BHC	133	133		ug/Kg		100	70 - 143	3	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-827940/3-A

Matrix: Solid

Analysis Batch: 828099

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827940

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
delta-BHC	133	140		ug/Kg		105	70 - 143	0	30
Dieldrin	133	145		ug/Kg		109	70 - 135	5	30
Dieldrin	133	135		ug/Kg		101	70 - 135	1	30
Endosulfan I	133	143		ug/Kg		107	68 - 135	5	30
Endosulfan I	133	131		ug/Kg		98	68 - 135	1	30
Endosulfan II	133	150		ug/Kg		113	64 - 130	5	30
Endosulfan II	133	146		ug/Kg		109	64 - 130	2	30
Endosulfan sulfate	133	146		ug/Kg		109	66 - 143	6	30
Endosulfan sulfate	133	142		ug/Kg		106	66 - 143	3	30
Endrin	133	137		ug/Kg		102	68 - 136	5	30
Endrin	133	135		ug/Kg		101	68 - 136	2	30
Endrin aldehyde	133	142		ug/Kg		107	68 - 132	5	30
Endrin aldehyde	133	140		ug/Kg		105	68 - 132	3	30
Endrin ketone	133	155		ug/Kg		117	60 - 150	6	30
Endrin ketone	133	144		ug/Kg		108	60 - 150	4	30
gamma-BHC (Lindane)	133	139		ug/Kg		104	70 - 134	3	30
gamma-BHC (Lindane)	133	132		ug/Kg		99	70 - 134	0	30
Heptachlor	133	143		ug/Kg		107	69 - 134	3	30
Heptachlor	133	131		ug/Kg		98	69 - 134	1	30
Heptachlor epoxide	133	140		ug/Kg		105	70 - 135	4	30
Heptachlor epoxide	133	131		ug/Kg		98	70 - 135	0	30
Methoxychlor	133	149		ug/Kg		112	57 - 135	6	30
Methoxychlor	133	137		ug/Kg		103	57 - 135	3	30
cis-Chlordane	133	141		ug/Kg		106	70 - 136	5	30
cis-Chlordane	133	131		ug/Kg		98	70 - 136	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	86		10 - 150
DCB Decachlorobiphenyl	82		10 - 150
Tetrachloro-m-xylene	75		10 - 133
Tetrachloro-m-xylene	71		10 - 133

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-827939/1-A

Matrix: Solid

Analysis Batch: 828012

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827939

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1016	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1221	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1221	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1232	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1232	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1242	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1242	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1248	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1248	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-827939/1-A

Matrix: Solid

Analysis Batch: 828012

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827939

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1254	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1254	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1260	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1260	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor-1262	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor-1262	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1268	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Aroclor 1268	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/12/22 15:05	02/13/22 23:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		37 - 150	02/12/22 15:05	02/13/22 23:52	1
DCB Decachlorobiphenyl	99		37 - 150	02/12/22 15:05	02/13/22 23:52	1
Tetrachloro-m-xylene	94		54 - 150	02/12/22 15:05	02/13/22 23:52	1
Tetrachloro-m-xylene	90		54 - 150	02/12/22 15:05	02/13/22 23:52	1

Lab Sample ID: LCS 460-827939/2-A

Matrix: Solid

Analysis Batch: 828012

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	330		ug/Kg		99	65 - 133
Aroclor 1016	333	310		ug/Kg		93	65 - 133
Aroclor 1260	333	326		ug/Kg		98	71 - 150
Aroclor 1260	333	318		ug/Kg		95	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	83		37 - 150
DCB Decachlorobiphenyl	85		37 - 150
Tetrachloro-m-xylene	82		54 - 150
Tetrachloro-m-xylene	80		54 - 150

Lab Sample ID: LCSD 460-827939/3-A

Matrix: Solid

Analysis Batch: 828012

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 827939

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	313		ug/Kg		94	65 - 133	5	30
Aroclor 1016	333	307		ug/Kg		92	65 - 133	1	30
Aroclor 1260	333	326		ug/Kg		98	71 - 150	0	30
Aroclor 1260	333	315		ug/Kg		95	71 - 150	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	84		37 - 150
DCB Decachlorobiphenyl	86		37 - 150
Tetrachloro-m-xylene	80		54 - 150
Tetrachloro-m-xylene	78		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: 460-252207-E-6-A MS

Matrix: Solid

Analysis Batch: 828012

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827939

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	76	U	380	480		ug/Kg	☼	126	65 - 133
Aroclor 1016	76	U	380	456		ug/Kg	☼	120	65 - 133
Aroclor 1260	76	U	380	488		ug/Kg	☼	128	71 - 150
Aroclor 1260	76	U	380	464		ug/Kg	☼	122	71 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	106		37 - 150
DCB Decachlorobiphenyl	112		37 - 150
Tetrachloro-m-xylene	85		54 - 150
Tetrachloro-m-xylene	83		54 - 150

Lab Sample ID: 460-252207-E-6-B MSD

Matrix: Solid

Analysis Batch: 828012

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 827939

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	76	U	380	495		ug/Kg	☼	130	65 - 133	3	30
Aroclor 1016	76	U	380	474		ug/Kg	☼	125	65 - 133	4	30
Aroclor 1260	76	U	380	503		ug/Kg	☼	132	71 - 150	3	30
Aroclor 1260	76	U	380	487		ug/Kg	☼	128	71 - 150	5	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	110		37 - 150
DCB Decachlorobiphenyl	115		37 - 150
Tetrachloro-m-xylene	89		54 - 150
Tetrachloro-m-xylene	87		54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-828229/1-A

Matrix: Solid

Analysis Batch: 828273

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/14/22 23:35	02/15/22 11:21	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/14/22 23:35	02/15/22 11:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	115		65 - 150	02/14/22 23:35	02/15/22 11:21	1
2,4-Dichlorophenylacetic acid	125		65 - 150	02/14/22 23:35	02/15/22 11:21	1

Lab Sample ID: LCS 460-828229/2-A

Matrix: Solid

Analysis Batch: 828273

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828229

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	41.7	46.5		ug/Kg		112	58 - 150
Silvex (2,4,5-TP)	41.7	58.2		ug/Kg		140	58 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	118		65 - 150
2,4-Dichlorophenylacetic acid	132		65 - 150

Lab Sample ID: LCSD 460-828229/3-A
Matrix: Solid
Analysis Batch: 828273

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 828229

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	41.7	44.4		ug/Kg		106	58 - 150	5	30
Silvex (2,4,5-TP)	41.7	56.0		ug/Kg		134	58 - 150	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	118		65 - 150
2,4-Dichlorophenylacetic acid	131		65 - 150

Lab Sample ID: 460-252365-E-1-B MSD
Matrix: Solid
Analysis Batch: 828273

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 828229

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	35	U	44.1	48.9		ug/Kg	⊛	111	58 - 150	1	30
Silvex (2,4,5-TP)	35	U	44.1	70.8	*	ug/Kg	⊛	161	58 - 150	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	120		65 - 150
2,4-Dichlorophenylacetic acid	152	*	65 - 150

Lab Sample ID: 460-252365-F-1-C MS
Matrix: Solid
Analysis Batch: 828273

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 828229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Silvex (2,4,5-TP)	35	U	44.1	49.3		ug/Kg	⊛	112	58 - 150		
Silvex (2,4,5-TP)	35	U	44.1	70.4	*	ug/Kg	⊛	160	58 - 150		

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4-Dichlorophenylacetic acid	119		65 - 150
2,4-Dichlorophenylacetic acid	139		65 - 150

Method: 537 (Modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-225582/1-B
Matrix: Solid
Analysis Batch: 226550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.049	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
8:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.017	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
NEtFOSAA	0.20	U	0.20	0.022	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
NMeFOSAA	0.20	U	0.20	0.031	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorobutanesulfonic acid	0.40	U	0.40	0.36	ug/Kg		02/18/22 23:45	02/23/22 03:09	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-225582/1-B

Matrix: Solid

Analysis Batch: 226550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 225582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	0.20	U	0.20	0.024	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorodecanesulfonic acid	0.20	U	0.20	0.021	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorodecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorododecanoic acid	0.20	U	0.20	0.023	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluoroheptanesulfonic acid	0.20	U	0.20	0.020	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluoroheptanoic acid	0.20	U	0.20	0.024	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorohexanesulfonic acid	0.20	U	0.20	0.019	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorohexanoic acid	0.20	U	0.20	0.019	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorononanoic acid	0.20	U	0.20	0.023	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorooctanesulfonamide	0.20	U	0.20	0.021	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorooctanesulfonic acid	0.20	U	0.20	0.035	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorooctanoic acid	0.20	U	0.20	0.022	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluoropentanoic acid	0.20	U	0.20	0.024	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorotetradecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluorotridecanoic acid	0.20	U	0.20	0.021	ug/Kg		02/18/22 23:45	02/23/22 03:09	1
Perfluoroundecanoic acid	0.20	U	0.20	0.056	ug/Kg		02/18/22 23:45	02/23/22 03:09	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	75		10 - 200	02/18/22 23:45	02/23/22 03:09	1
M2-8:2 FTS	73		15 - 200	02/18/22 23:45	02/23/22 03:09	1
13C2 PFTeDA	35		10 - 169	02/18/22 23:45	02/23/22 03:09	1
13C3 PFBS	74		27 - 179	02/18/22 23:45	02/23/22 03:09	1
13C4 PFBA	71		28 - 153	02/18/22 23:45	02/23/22 03:09	1
13C4 PFHpA	68		10 - 178	02/18/22 23:45	02/23/22 03:09	1
13C5 PFPeA	71		24 - 161	02/18/22 23:45	02/23/22 03:09	1
13C8 PFOA	72		26 - 159	02/18/22 23:45	02/23/22 03:09	1
13C8 PFOS	72		41 - 154	02/18/22 23:45	02/23/22 03:09	1
d3-NMeFOSAA	42		10 - 178	02/18/22 23:45	02/23/22 03:09	1
d5-NEtFOSAA	46		10 - 193	02/18/22 23:45	02/23/22 03:09	1
13C3 PFHxS	74		24 - 171	02/18/22 23:45	02/23/22 03:09	1
13C5 PFHxA	68		10 - 174	02/18/22 23:45	02/23/22 03:09	1
13C6 PFDA	68		26 - 161	02/18/22 23:45	02/23/22 03:09	1
13C7 PFUnA	65		12 - 173	02/18/22 23:45	02/23/22 03:09	1
13C8 FOSA	56		14 - 163	02/18/22 23:45	02/23/22 03:09	1
13C2-PFDoDA	52		11 - 166	02/18/22 23:45	02/23/22 03:09	1
13C9 PFNA	71		26 - 165	02/18/22 23:45	02/23/22 03:09	1

Lab Sample ID: LCS 410-225582/2-B

Matrix: Solid

Analysis Batch: 226550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 225582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
6:2 Fluorotelomer sulfonic acid	2.37	2.257		ug/Kg		95	59 - 135
8:2 Fluorotelomer sulfonic acid	2.40	2.288		ug/Kg		96	55 - 133
NEtFOSAA	2.50	2.558		ug/Kg		102	57 - 127
NMeFOSAA	2.50	2.454		ug/Kg		98	60 - 134
Perfluorobutanesulfonic acid	2.21	2.152		ug/Kg		97	54 - 130
Perfluorobutanoic acid	2.50	2.351		ug/Kg		94	60 - 128
Perfluorodecanesulfonic acid	2.41	1.885		ug/Kg		78	57 - 132

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-225582/2-B

Matrix: Solid

Analysis Batch: 226550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 225582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorodecanoic acid	2.50	2.267		ug/Kg		91	56 - 133
Perfluorododecanoic acid	2.50	2.561		ug/Kg		102	60 - 135
Perfluoroheptanesulfonic acid	2.38	2.073		ug/Kg		87	59 - 132
Perfluoroheptanoic acid	2.50	2.568		ug/Kg		103	59 - 137
Perfluorohexanesulfonic acid	2.28	2.301		ug/Kg		101	59 - 129
Perfluorohexanoic acid	2.50	2.467		ug/Kg		99	59 - 132
Perfluorononanoic acid	2.50	2.569		ug/Kg		103	61 - 134
Perfluorooctanesulfonamide	2.50	2.349		ug/Kg		94	47 - 149
Perfluorooctanesulfonic acid	2.31	2.055		ug/Kg		89	61 - 126
Perfluorooctanoic acid	2.50	2.249		ug/Kg		90	59 - 131
Perfluoropentanoic acid	2.50	2.158		ug/Kg		86	58 - 134
Perfluorotetradecanoic acid	2.50	2.409		ug/Kg		96	62 - 134
Perfluorotridecanoic acid	2.50	2.117		ug/Kg		85	53 - 143
Perfluoroundecanoic acid	2.50	2.397		ug/Kg		96	60 - 134

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	77		10 - 200
M2-8:2 FTS	79		15 - 200
13C2 PFTeDA	44		10 - 169
13C3 PFBS	83		27 - 179
13C4 PFBA	74		28 - 153
13C4 PFHpA	73		10 - 178
13C5 PFPeA	76		24 - 161
13C8 PFOA	78		26 - 159
13C8 PFOS	81		41 - 154
d3-NMeFOSAA	51		10 - 178
d5-NEtFOSAA	52		10 - 193
13C3 PFHxS	79		24 - 171
13C5 PFHxA	73		10 - 174
13C6 PFDA	77		26 - 161
13C7 PFUnA	76		12 - 173
13C8 FOSA	64		14 - 163
13C2-PFDoDA	65		11 - 166
13C9 PFNA	75		26 - 165

Lab Sample ID: 460-252109-A-38-E MS

Matrix: Solid

Analysis Batch: 226550

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 225582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
6:2 Fluorotelomer sulfonic acid	0.21	U	2.50	2.324		ug/Kg	✱	93	59 - 135
8:2 Fluorotelomer sulfonic acid	0.21	U	2.53	2.614		ug/Kg	✱	103	55 - 133
NEtFOSAA	0.21	U	2.64	2.471		ug/Kg	✱	94	57 - 127
NMeFOSAA	0.21	U	2.64	2.779		ug/Kg	✱	105	60 - 134
Perfluorobutanesulfonic acid	0.42	U	2.34	2.272		ug/Kg	✱	97	54 - 130
Perfluorobutanoic acid	0.029	J	2.64	2.451		ug/Kg	✱	92	60 - 128
Perfluorodecanesulfonic acid	0.21	U	2.55	2.156		ug/Kg	✱	85	57 - 132
Perfluorodecanoic acid	0.069	J	2.64	2.526		ug/Kg	✱	93	56 - 133
Perfluorododecanoic acid	0.037	J	2.64	2.644		ug/Kg	✱	99	60 - 135

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-252109-A-38-E MS

Matrix: Solid

Analysis Batch: 226550

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 225582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanesulfonic acid	0.21	U	2.51	2.201		ug/Kg	✱	88	59 - 132
Perfluoroheptanoic acid	0.093	J	2.64	2.899		ug/Kg	✱	106	59 - 137
Perfluorohexanesulfonic acid	0.21	U	2.41	2.358		ug/Kg	✱	98	59 - 129
Perfluorohexanoic acid	0.054	J	2.64	2.619		ug/Kg	✱	97	59 - 132
Perfluorononanoic acid	0.33		2.64	3.081		ug/Kg	✱	104	61 - 134
Perfluorooctanesulfonamide	0.21	U	2.64	2.600		ug/Kg	✱	98	47 - 149
Perfluorooctanesulfonic acid	0.044	J	2.44	2.241		ug/Kg	✱	90	61 - 126
Perfluorooctanoic acid	0.33		2.64	2.932		ug/Kg	✱	99	59 - 131
Perfluoropentanoic acid	0.028	J	2.64	2.308		ug/Kg	✱	86	58 - 134
Perfluorotetradecanoic acid	0.21	U	2.64	2.603		ug/Kg	✱	99	62 - 134
Perfluorotridecanoic acid	0.18	J	2.64	2.480		ug/Kg	✱	87	53 - 143
Perfluoroundecanoic acid	0.34		2.64	2.852		ug/Kg	✱	95	60 - 134

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
M2-6:2 FTS	86		10 - 200
M2-8:2 FTS	73		15 - 200
13C2 PFTeDA	57		10 - 169
13C3 PFBS	90		27 - 179
13C4 PFBA	75		28 - 153
13C4 PFHpA	78		10 - 178
13C5 PFPeA	78		24 - 161
13C8 PFOA	83		26 - 159
13C8 PFOS	91		41 - 154
d3-NMeFOSAA	20		10 - 178
d5-NEtFOSAA	30		10 - 193
13C3 PFHxS	91		24 - 171
13C5 PFHxA	78		10 - 174
13C6 PFDA	82		26 - 161
13C7 PFUnA	86		12 - 173
13C8 FOSA	55		14 - 163
13C2-PFDoDA	80		11 - 166
13C9 PFNA	80		26 - 165

Lab Sample ID: 460-252109-A-38-F MSD

Matrix: Solid

Analysis Batch: 226550

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 225582

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
6:2 Fluorotelomer sulfonic acid	0.21	U	2.54	2.431		ug/Kg	✱	96	59 - 135	5	30
8:2 Fluorotelomer sulfonic acid	0.21	U	2.57	2.410		ug/Kg	✱	94	55 - 133	8	30
NEtFOSAA	0.21	U	2.68	2.504		ug/Kg	✱	93	57 - 127	1	30
NMeFOSAA	0.21	U	2.68	2.534		ug/Kg	✱	95	60 - 134	9	30
Perfluorobutanesulfonic acid	0.42	U	2.37	2.314		ug/Kg	✱	98	54 - 130	2	30
Perfluorobutanoic acid	0.029	J	2.68	2.499		ug/Kg	✱	92	60 - 128	2	30
Perfluorodecanesulfonic acid	0.21	U	2.58	2.265		ug/Kg	✱	88	57 - 132	5	30
Perfluorodecanoic acid	0.069	J	2.68	2.555		ug/Kg	✱	93	56 - 133	1	30
Perfluorododecanoic acid	0.037	J	2.68	2.801		ug/Kg	✱	103	60 - 135	6	30
Perfluoroheptanesulfonic acid	0.21	U	2.55	2.244		ug/Kg	✱	88	59 - 132	2	30
Perfluoroheptanoic acid	0.093	J	2.68	2.875		ug/Kg	✱	104	59 - 137	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-252109-A-38-F MSD

Matrix: Solid

Analysis Batch: 226550

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 225582

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid	0.21	U	2.44	2.392		ug/Kg	✱	98	59 - 129	1	30
Perfluorohexanoic acid	0.054	J	2.68	2.774		ug/Kg	✱	101	59 - 132	6	30
Perfluorononanoic acid	0.33		2.68	3.221		ug/Kg	✱	108	61 - 134	4	30
Perfluorooctanesulfonamide	0.21	U	2.68	2.638		ug/Kg	✱	98	47 - 149	1	30
Perfluorooctanesulfonic acid	0.044	J	2.48	2.338		ug/Kg	✱	92	61 - 126	4	30
Perfluorooctanoic acid	0.33		2.68	2.976		ug/Kg	✱	99	59 - 131	1	30
Perfluoropentanoic acid	0.028	J	2.68	2.252		ug/Kg	✱	83	58 - 134	2	30
Perfluorotetradecanoic acid	0.21	U	2.68	2.617		ug/Kg	✱	98	62 - 134	1	30
Perfluorotridecanoic acid	0.18	J	2.68	2.525		ug/Kg	✱	87	53 - 143	2	30
Perfluoroundecanoic acid	0.34		2.68	3.065		ug/Kg	✱	102	60 - 134	7	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
M2-6:2 FTS	82		10 - 200
M2-8:2 FTS	84		15 - 200
13C2 PFTeDA	51		10 - 169
13C3 PFBS	94		27 - 179
13C4 PFBA	81		28 - 153
13C4 PFHpA	81		10 - 178
13C5 PFPeA	85		24 - 161
13C8 PFOA	84		26 - 159
13C8 PFOS	88		41 - 154
d3-NMeFOSAA	23		10 - 178
d5-NEtFOSAA	33		10 - 193
13C3 PFHxS	95		24 - 171
13C5 PFHxA	79		10 - 174
13C6 PFDA	84		26 - 161
13C7 PFUnA	81		12 - 173
13C8 FOSA	60		14 - 163
13C2-PFDoDA	79		11 - 166
13C9 PFNA	78		26 - 165

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-829382/1-A

Matrix: Solid

Analysis Batch: 829459

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Barium	2.0	U	2.0	0.15	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Chromium	2.0	U	2.0	0.27	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Copper	2.0	U	2.0	0.37	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Manganese	4.0	U	4.0	0.40	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Nickel	2.0	U	2.0	0.47	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Lead	0.60	U	0.60	0.20	mg/Kg		02/21/22 08:53	02/21/22 19:41	1
Selenium	1.3	U	1.3	0.13	mg/Kg		02/21/22 08:53	02/21/22 19:41	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-829382/1-A

Matrix: Solid

Analysis Batch: 829459

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	8.0	U	8.0	3.1	mg/Kg		02/21/22 08:53	02/21/22 19:41	1

Lab Sample ID: LCSSRM 460-829382/2-A ^5

Matrix: Solid

Analysis Batch: 829459

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829382

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	19.62		mg/Kg		58.4	48.2 - 73.5
Arsenic	140	134.0		mg/Kg		95.7	82.9 - 117.9
Barium	202	182.5		mg/Kg		90.3	81.2 - 118.3
Beryllium	42.6	38.67		mg/Kg		90.8	81.0 - 119.0
Cadmium	97.9	94.48		mg/Kg		96.5	80.0 - 119.5
Chromium	60.4	58.43		mg/Kg		96.7	80.3 - 119.7
Copper	122	119.2		mg/Kg		97.7	82.8 - 117.2
Manganese	457	445.2		mg/Kg		97.4	79.6 - 120.6
Nickel	151	149.0		mg/Kg		98.7	79.5 - 121.2
Lead	56.7	52.54		mg/Kg		92.7	82.9 - 116.9
Selenium	35.5	35.33		mg/Kg		99.5	77.5 - 122.3
Zinc	186	179.8		mg/Kg		96.7	79.0 - 121.0

Lab Sample ID: 460-252220-2 MS

Matrix: Solid

Analysis Batch: 829459

Client Sample ID: 136_PE-21

Prep Type: Total/NA

Prep Batch: 829382

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.98	U	4.84	4.33		mg/Kg	✱	89	75 - 125
Arsenic	1.3		9.69	9.08		mg/Kg	✱	81	75 - 125
Barium	11.0		9.69	18.86		mg/Kg	✱	81	75 - 125
Beryllium	0.30	J	4.84	4.45		mg/Kg	✱	86	75 - 125
Cadmium	0.98	U	4.84	4.13		mg/Kg	✱	85	75 - 125
Chromium	9.4		9.69	17.11		mg/Kg	✱	80	75 - 125
Copper	6.9		9.69	14.60		mg/Kg	✱	79	75 - 125
Manganese	232		48.4	244.9	4	mg/Kg	✱	28	75 - 125
Nickel	9.4		9.69	16.90		mg/Kg	✱	78	75 - 125
Lead	4.1		4.84	8.06		mg/Kg	✱	82	75 - 125
Selenium	1.2	U	9.69	8.34		mg/Kg	✱	86	75 - 125
Zinc	18.0		48.4	58.59		mg/Kg	✱	84	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-252220-2 DU

Matrix: Solid

Analysis Batch: 829459

Client Sample ID: 136_PE-21

Prep Type: Total/NA

Prep Batch: 829382

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Silver	0.98	U	0.98	U	mg/Kg	✱	NC	20
Arsenic	1.3		1.10		mg/Kg	✱	15	20
Barium	11.0		13.05		mg/Kg	✱	17	20
Beryllium	0.30	J	0.291	J	mg/Kg	✱	3	20
Cadmium	0.98	U	0.98	U	mg/Kg	✱	NC	20
Chromium	9.4		9.52		mg/Kg	✱	2	20
Copper	6.9		6.93		mg/Kg	✱	0.3	20
Manganese	232		237.9		mg/Kg	✱	3	20
Nickel	9.4		9.39		mg/Kg	✱	0.3	20
Lead	4.1		4.49		mg/Kg	✱	9	20
Selenium	1.2	U	1.2	U	mg/Kg	✱	NC	20
Zinc	18.0		18.48		mg/Kg	✱	3	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-828251/1-A

Matrix: Solid

Analysis Batch: 828345

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828251

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		02/15/22 04:15	02/15/22 10:06	1

Lab Sample ID: LCSSRM 460-828251/2-A ^40

Matrix: Solid

Analysis Batch: 828345

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828251

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	15.41		mg/Kg		93.4	74.5 - 124.8

Lab Sample ID: 460-252285-A-6-I MS

Matrix: Solid

Analysis Batch: 828345

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 828251

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.016	U	0.0780	0.0782		mg/Kg	✱	100	80 - 120

Lab Sample ID: 460-252285-A-6-H DU

Matrix: Solid

Analysis Batch: 828345

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 828251

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.016	U	0.016	U	mg/Kg	✱	NC	20

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-827831/1-A

Matrix: Solid

Analysis Batch: 827920

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 827831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		02/11/22 18:47	02/12/22 18:10	1

Lab Sample ID: LCSi 460-827831/3-A

Matrix: Solid

Analysis Batch: 827920

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827831

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	632.0		mg/Kg		89	80 - 120

Lab Sample ID: LCSSRM 460-827831/2-A

Matrix: Solid

Analysis Batch: 827920

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827831

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	15.9	14.86		mg/Kg		93.5	84.1 - 114.4

Lab Sample ID: LCSSRM 460-827831/4-A

Matrix: Solid

Analysis Batch: 827920

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 827831

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	114.7		mg/Kg		87.6	61.3 - 138.2

Lab Sample ID: 460-251723-F-1-F MSS

Matrix: Solid

Analysis Batch: 827920

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827831

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.1	U	42.2	36.72		mg/Kg	✱	87	75 - 125

Lab Sample ID: 460-251723-F-1-G MSI

Matrix: Solid

Analysis Batch: 827920

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 827831

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.1	U	746	633.0		mg/Kg	✱	85	75 - 125

Lab Sample ID: 460-251723-F-1-E DU

Matrix: Solid

Analysis Batch: 827920

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 827831

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.1	U	2.1	U	mg/Kg	✱	NC	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MRL 460-827890/1-A
Matrix: Solid
Analysis Batch: 827930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 827890

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.00999	J	mg/L		100	50 - 150

Lab Sample ID: MB 460-827909/1-A
Matrix: Solid
Analysis Batch: 827930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 827909

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		02/12/22 08:57	02/12/22 13:07	1

Lab Sample ID: LCSSRM 460-827909/2-A ^20
Matrix: Solid
Analysis Batch: 827930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 827909

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	115	103.7		mg/Kg		90.2	25.6 - 125.2

Lab Sample ID: 460-252220-2 MS
Matrix: Solid
Analysis Batch: 827930

Client Sample ID: 136_PE-21
Prep Type: Total/NA
Prep Batch: 827909

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.23	U	4.74	6.30	N	mg/Kg	✱	133	11 - 108

Lab Sample ID: 460-252220-2 MSD
Matrix: Solid
Analysis Batch: 827930

Client Sample ID: 136_PE-21
Prep Type: Total/NA
Prep Batch: 827909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.23	U	4.74	5.75	N	mg/Kg	✱	122	11 - 108	9	40

Method: Moisture - Percent Moisture

Lab Sample ID: 460-252207-A-10 DU
Matrix: Solid
Analysis Batch: 828380

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	80.6		80.6		%		0	20
Percent Solids	19.4		19.4		%		0	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

GC/MS VOA

Analysis Batch: 827716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-1	135_TB-12	Total/NA	Water	8260D	
MB 460-827716/7	Method Blank	Total/NA	Water	8260D	
LCS 460-827716/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-827716/4	Lab Control Sample Dup	Total/NA	Water	8260D	

Prep Batch: 827737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	5035	
460-252220-3	137_PE-13	Total/NA	Solid	5035	

Analysis Batch: 828001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-3	137_PE-13	Total/NA	Solid	8260D	827737
MB 460-828001/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-828001/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-828001/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 828085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	8260D	827737
MB 460-828085/9	Method Blank	Total/NA	Solid	8260D	
LCS 460-828085/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-828085/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 827935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	3546	
MB 460-827935/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-827935/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-827935/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-252201-F-5-J MS	Matrix Spike	Total/NA	Solid	3546	
460-252201-F-5-K MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 827936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-3	137_PE-13	Total/NA	Solid	3546	
MB 460-827936/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-827936/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-827936/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-252220-3 MS	137_PE-13	Total/NA	Solid	3546	
460-252220-3 MSD	137_PE-13	Total/NA	Solid	3546	

Analysis Batch: 828038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	8270E	827935
MB 460-827935/1-A	Method Blank	Total/NA	Solid	8270E	827935
LCS 460-827935/2-A	Lab Control Sample	Total/NA	Solid	8270E	827935
LCSD 460-827935/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	827935
460-252201-F-5-J MS	Matrix Spike	Total/NA	Solid	8270E	827935

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

GC/MS Semi VOA (Continued)

Analysis Batch: 828038 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252201-F-5-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	827935

Analysis Batch: 828068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-3	137_PE-13	Total/NA	Solid	8270E	827936
MB 460-827936/1-A	Method Blank	Total/NA	Solid	8270E	827936
LCS 460-827936/2-A	Lab Control Sample	Total/NA	Solid	8270E	827936
LCSD 460-827936/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	827936
460-252220-3 MS	137_PE-13	Total/NA	Solid	8270E	827936
460-252220-3 MSD	137_PE-13	Total/NA	Solid	8270E	827936

GC Semi VOA

Prep Batch: 827939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	3546	
460-252220-3	137_PE-13	Total/NA	Solid	3546	
MB 460-827939/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-827939/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-827939/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-252207-E-6-A MS	Matrix Spike	Total/NA	Solid	3546	
460-252207-E-6-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 827940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	3546	
460-252220-3	137_PE-13	Total/NA	Solid	3546	
MB 460-827940/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-827940/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-827940/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 828012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	8082A	827939
460-252220-3	137_PE-13	Total/NA	Solid	8082A	827939
MB 460-827939/1-A	Method Blank	Total/NA	Solid	8082A	827939
LCS 460-827939/2-A	Lab Control Sample	Total/NA	Solid	8082A	827939
LCSD 460-827939/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	827939
460-252207-E-6-A MS	Matrix Spike	Total/NA	Solid	8082A	827939
460-252207-E-6-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	827939

Analysis Batch: 828099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	8081B	827940
460-252220-3	137_PE-13	Total/NA	Solid	8081B	827940
MB 460-827940/1-A	Method Blank	Total/NA	Solid	8081B	827940
LCS 460-827940/2-A	Lab Control Sample	Total/NA	Solid	8081B	827940
LCSD 460-827940/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	827940

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

GC Semi VOA

Prep Batch: 828229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	8151A	
460-252220-3	137_PE-13	Total/NA	Solid	8151A	
MB 460-828229/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-828229/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-828229/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-252365-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	
460-252365-F-1-C MS	Matrix Spike	Total/NA	Solid	8151A	

Analysis Batch: 828273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	8151A	828229
460-252220-3	137_PE-13	Total/NA	Solid	8151A	828229
MB 460-828229/1-A	Method Blank	Total/NA	Solid	8151A	828229
LCS 460-828229/2-A	Lab Control Sample	Total/NA	Solid	8151A	828229
LCSD 460-828229/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	828229
460-252365-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	828229
460-252365-F-1-C MS	Matrix Spike	Total/NA	Solid	8151A	828229

LCMS

Prep Batch: 225582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	SHAKE	
460-252220-3	137_PE-13	Total/NA	Solid	SHAKE	
MB 410-225582/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-225582/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-252109-A-38-E MS	Matrix Spike	Total/NA	Solid	SHAKE	
460-252109-A-38-F MSD	Matrix Spike Duplicate	Total/NA	Solid	SHAKE	

Cleanup Batch: 226100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	Extract Aliquot	225582
460-252220-3	137_PE-13	Total/NA	Solid	Extract Aliquot	225582
MB 410-225582/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	225582
LCS 410-225582/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	225582
460-252109-A-38-E MS	Matrix Spike	Total/NA	Solid	Extract Aliquot	225582
460-252109-A-38-F MSD	Matrix Spike Duplicate	Total/NA	Solid	Extract Aliquot	225582

Analysis Batch: 226550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	537 (Modified)	226100
460-252220-3	137_PE-13	Total/NA	Solid	537 (Modified)	226100
MB 410-225582/1-B	Method Blank	Total/NA	Solid	537 (Modified)	226100
LCS 410-225582/2-B	Lab Control Sample	Total/NA	Solid	537 (Modified)	226100
460-252109-A-38-E MS	Matrix Spike	Total/NA	Solid	537 (Modified)	226100
460-252109-A-38-F MSD	Matrix Spike Duplicate	Total/NA	Solid	537 (Modified)	226100

Metals

Prep Batch: 828251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	7471B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Metals (Continued)

Prep Batch: 828251 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-3	137_PE-13	Total/NA	Solid	7471B	
MB 460-828251/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-828251/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-252285-A-6-I MS	Matrix Spike	Total/NA	Solid	7471B	
460-252285-A-6-H DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 828345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	7471B	828251
460-252220-3	137_PE-13	Total/NA	Solid	7471B	828251
MB 460-828251/1-A	Method Blank	Total/NA	Solid	7471B	828251
LCSSRM 460-828251/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	828251
460-252285-A-6-I MS	Matrix Spike	Total/NA	Solid	7471B	828251
460-252285-A-6-H DU	Duplicate	Total/NA	Solid	7471B	828251

Prep Batch: 829382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	3050B	
460-252220-3	137_PE-13	Total/NA	Solid	3050B	
MB 460-829382/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-829382/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-252220-2 MS	136_PE-21	Total/NA	Solid	3050B	
460-252220-2 DU	136_PE-21	Total/NA	Solid	3050B	

Analysis Batch: 829459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	6020B	829382
460-252220-3	137_PE-13	Total/NA	Solid	6020B	829382
MB 460-829382/1-A	Method Blank	Total/NA	Solid	6020B	829382
LCSSRM 460-829382/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	829382
460-252220-2 MS	136_PE-21	Total/NA	Solid	6020B	829382
460-252220-2 DU	136_PE-21	Total/NA	Solid	6020B	829382

General Chemistry

Prep Batch: 827831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	3060A	
460-252220-3	137_PE-13	Total/NA	Solid	3060A	
MB 460-827831/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-827831/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-827831/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-827831/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-251723-F-1-F MSS	Matrix Spike	Total/NA	Solid	3060A	
460-251723-F-1-G MSI	Matrix Spike	Total/NA	Solid	3060A	
460-251723-F-1-E DU	Duplicate	Total/NA	Solid	3060A	

Prep Batch: 827890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-827890/1-A	Lab Control Sample	Total/NA	Solid	9012B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

General Chemistry

Prep Batch: 827909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	9012B	
460-252220-3	137_PE-13	Total/NA	Solid	9012B	
MB 460-827909/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-827909/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-252220-2 MS	136_PE-21	Total/NA	Solid	9012B	
460-252220-2 MSD	136_PE-21	Total/NA	Solid	9012B	

Analysis Batch: 827920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	7196A	827831
460-252220-3	137_PE-13	Total/NA	Solid	7196A	827831
MB 460-827831/1-A	Method Blank	Total/NA	Solid	7196A	827831
LCSI 460-827831/3-A	Lab Control Sample	Total/NA	Solid	7196A	827831
LCSSRM 460-827831/2-A	Lab Control Sample	Total/NA	Solid	7196A	827831
LCSSRM 460-827831/4-A	Lab Control Sample	Total/NA	Solid	7196A	827831
460-251723-F-1-F MSS	Matrix Spike	Total/NA	Solid	7196A	827831
460-251723-F-1-G MSI	Matrix Spike	Total/NA	Solid	7196A	827831
460-251723-F-1-E DU	Duplicate	Total/NA	Solid	7196A	827831

Analysis Batch: 827930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	9012B	827909
460-252220-3	137_PE-13	Total/NA	Solid	9012B	827909
MB 460-827909/1-A	Method Blank	Total/NA	Solid	9012B	827909
LCSSRM 460-827909/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	827909
MRL 460-827890/1-A	Lab Control Sample	Total/NA	Solid	9012B	827890
460-252220-2 MS	136_PE-21	Total/NA	Solid	9012B	827909
460-252220-2 MSD	136_PE-21	Total/NA	Solid	9012B	827909

Analysis Batch: 828079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	7196A	
460-252220-3	137_PE-13	Total/NA	Solid	7196A	

Analysis Batch: 828380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252220-2	136_PE-21	Total/NA	Solid	Moisture	
460-252220-3	137_PE-13	Total/NA	Solid	Moisture	
460-252207-F-10 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-252207-F-10 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-252207-A-10 DU	Duplicate	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 135_TB-12

Date Collected: 02/09/22 11:30

Date Received: 02/09/22 19:00

Lab Sample ID: 460-252220-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	827716	02/11/22 16:33	MZS	TAL EDI

Client Sample ID: 136_PE-21

Date Collected: 02/09/22 11:00

Date Received: 02/09/22 19:00

Lab Sample ID: 460-252220-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	828079	02/23/22 06:40	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	828380	02/15/22 13:25	FBT	TAL EDI

Client Sample ID: 136_PE-21

Date Collected: 02/09/22 11:00

Date Received: 02/09/22 19:00

Lab Sample ID: 460-252220-2

Matrix: Solid

Percent Solids: 93.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			827737	02/11/22 08:25	YXG	TAL EDI
Total/NA	Analysis	8260D		1	828085	02/14/22 09:42	VBP	TAL EDI
Total/NA	Prep	3546			827935	02/12/22 14:42	DMS	TAL EDI
Total/NA	Analysis	8270E		1	828038	02/13/22 18:00	YAH	TAL EDI
Total/NA	Prep	3546			827940	02/12/22 15:08	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	828099	02/14/22 11:49	FAM	TAL EDI
Total/NA	Prep	3546			827939	02/12/22 15:05	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	828012	02/14/22 02:55	JHP	TAL EDI
Total/NA	Prep	8151A			828229	02/14/22 23:35	AFR	TAL EDI
Total/NA	Analysis	8151A		1	828273	02/15/22 12:01	SAK	TAL EDI
Total/NA	Prep	SHAKE			225582	02/18/22 23:45	GU2F	ELLE
Total/NA	Cleanup	Extract Aliquot			226100	02/21/22 19:31	QLP7	ELLE
Total/NA	Analysis	537 (Modified)		1	226550	02/23/22 07:03	ZG8V	ELLE
Total/NA	Prep	3050B			829382	02/21/22 08:53	MDC	TAL EDI
Total/NA	Analysis	6020B		1	829459	02/21/22 19:52	VAD	TAL EDI
Total/NA	Prep	7471B			828251	02/15/22 04:15	TJS	TAL EDI
Total/NA	Analysis	7471B		1	828345	02/15/22 10:38	TJS	TAL EDI
Total/NA	Prep	3060A			827831	02/11/22 18:47	OXG	TAL EDI
Total/NA	Analysis	7196A		1	827920	02/12/22 18:58	OXG	TAL EDI
Total/NA	Prep	9012B			827909	02/12/22 08:57	VBG	TAL EDI
Total/NA	Analysis	9012B		1	827930	02/12/22 13:23	VBG	TAL EDI

Client Sample ID: 137_PE-13

Date Collected: 02/09/22 12:10

Date Received: 02/09/22 19:00

Lab Sample ID: 460-252220-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	828079	02/23/22 06:40	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	828380	02/15/22 13:25	FBT	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Client Sample ID: 137_PE-13

Lab Sample ID: 460-252220-3

Date Collected: 02/09/22 12:10

Matrix: Solid

Date Received: 02/09/22 19:00

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			827737	02/11/22 08:26	YXG	TAL EDI
Total/NA	Analysis	8260D		1	828001	02/13/22 18:11	AAT	TAL EDI
Total/NA	Prep	3546			827936	02/12/22 14:46	DMS	TAL EDI
Total/NA	Analysis	8270E		1	828068	02/14/22 01:16	YAH	TAL EDI
Total/NA	Prep	3546			827940	02/12/22 15:08	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	828099	02/14/22 12:31	FAM	TAL EDI
Total/NA	Prep	3546			827939	02/12/22 15:05	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	828012	02/14/22 03:12	JHP	TAL EDI
Total/NA	Prep	8151A			828229	02/14/22 23:35	AFR	TAL EDI
Total/NA	Analysis	8151A		1	828273	02/15/22 12:15	SAK	TAL EDI
Total/NA	Prep	SHAKE			225582	02/18/22 23:45	GU2F	ELLE
Total/NA	Cleanup	Extract Aliquot			226100	02/21/22 19:31	QLP7	ELLE
Total/NA	Analysis	537 (Modified)		1	226550	02/23/22 07:14	ZG8V	ELLE
Total/NA	Prep	3050B			829382	02/21/22 08:53	MDC	TAL EDI
Total/NA	Analysis	6020B		1	829459	02/21/22 20:00	VAD	TAL EDI
Total/NA	Prep	7471B			828251	02/15/22 04:15	TJS	TAL EDI
Total/NA	Analysis	7471B		1	828345	02/15/22 10:39	TJS	TAL EDI
Total/NA	Prep	3060A			827831	02/11/22 18:47	OXG	TAL EDI
Total/NA	Analysis	7196A		1	827920	02/12/22 18:58	OXG	TAL EDI
Total/NA	Prep	9012B			827909	02/12/22 08:57	VBG	TAL EDI
Total/NA	Analysis	9012B		1	827930	02/12/22 13:26	VBG	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-23
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22 *
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22 *
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-22 *
Oklahoma	NELAP	R-205	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-22 *
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	02-28-22
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 (Modified)	Fluorinated Alkyl Substances	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252220-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-252220-1	135_TB-12	Water	02/09/22 11:30	02/09/22 19:00
460-252220-2	136_PE-21	Solid	02/09/22 11:00	02/09/22 19:00
460-252220-3	137_PE-13	Solid	02/09/22 12:10	02/09/22 19:00

25220

IR Gun #

Cooler Temperatures

RAW		COMPILED		RAW		COMPILED	
Cooler #1:	330	325		Cooler #4	1	1	Cooler #7
Cooler #2:	1	1	1	Cooler #5	1	1	Cooler #8
Cooler #3:	1	1	1	Cooler #6	1	1	Cooler #9

[illegible]

If pH adjustments are required record the information below:

Volume of Preservative used (ml):

Expiration Date:

^a The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: Frank

Date: 2922

Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-252220-1

Login Number: 252220

List Source: Eurofins Edison

List Number: 1

Creator: DiGuardia, Joseph L

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-252220-1

Login Number: 252220

List Number: 2

Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 02/10/22 07:36 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

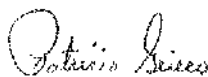
Laboratory Job ID: 460-252650-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:
2/28/2022 9:36:25 AM

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



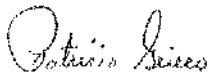
Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
2/28/2022 9:36:25 AM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	12
Client Sample Results	14
Surrogate Summary	27
Isotope Dilution Summary	30
QC Sample Results	32
QC Association Summary	66
Lab Chronicle	73
Certification Summary	76
Method Summary	78
Sample Summary	79
Chain of Custody	80
Receipt Checklists	83



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Job ID: 460-252650-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-252650-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 02/16/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.7 C.

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC). Per client email on 2/17,2022: The trip blank should be logged as 141_TB-13.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 02/17/2022 and analyzed on 02/20/2022.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 140_FB-8 (460-252650-3) and 141_TB-13 (460-252650-4) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 02/21/2022 and 02/22/2022.

Acetone was detected in method blank MB 460-829551/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Job ID: 460-252650-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared and analyzed on 02/18/2022.

Several analytes failed the recovery criteria low for the MSD of sample 460-252644-1 in batch 460-829098. Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Dibenz(a,h)anthracene and Pentachlorophenol exceeded the RPD limit.

The continuing calibration verification (CCV) analyzed in batch 460-829227 was outside the method criteria for the following analyte(s): 3 & 4 Methylphenol and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 140_FB-8 (460-252650-3) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 02/18/2022 and analyzed on 02/19/2022.

3 & 4 Methylphenol and Pentachlorophenol failed the recovery criteria low for the MS of sample 460-252658-10 in batch 460-829227.

Pentachlorophenol failed the recovery criteria low for the MSD of sample 460-252658-10 in batch 460-829227.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - ISOTOPE DILUTION - 1,4 DIOXANE

Sample 140_FB-8 (460-252650-3) was analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) - Isotope Dilution - 1,4 Dioxane in accordance with EPA SW-846 Method 8270E SIM 1,4Dioxane. The samples were prepared on 02/17/2022 and analyzed on 02/18/2022.

No difficulties were encountered during the 1,4 Dioxane analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 02/17/2022 and analyzed on 02/18/2022.

delta-BHC failed the recovery criteria low for the MS of sample 460-252663-11 in batch 460-828804.

delta-BHC failed the recovery criteria low for the MSD of sample 460-252663-11 in batch 460-828804.

Refer to the QC report for details.

No other difficulties were encountered during the Pesticides analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Job ID: 460-252650-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All other quality control parameters were within the acceptance limits.

PESTICIDES

Sample 140_FB-8 (460-252650-3) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 02/17/2022 and analyzed on 02/18/2022.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 02/17/2022 and analyzed on 02/18/2022.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample 140_FB-8 (460-252650-3) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 02/17/2022 and analyzed on 02/18/2022.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 02/18/2022 and analyzed on 02/20/2022.

The continuing calibration verification (CCV) associated with batch 460-828955 recovered above the upper control limit for many analytes>. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The closing continuing calibration verification (CCVC) associated with batch 460-828955 recovered above the upper control limit for Silvex (2,4,5-TP) and 2,4,5-T. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Silvex (2,4,5-TP) exceeded the RPD limit for the MSD of sample 460-252638-6 in batch 460-828955.

Refer to the QC report for details.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Sample 140_FB-8 (460-252650-3) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared and analyzed on 02/18/2022.

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Job ID: 460-252650-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 02/22/2022 and analyzed on 02/25/2022.

No difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared and analyzed on 02/26/2022.

Manganese failed the recovery criteria low for the MS of sample 460-252992-1 in batch 460-830568. Barium and Nickel failed the recovery criteria high.

Refer to the QC report for details.

Manganese exceeded the RPD limit for the duplicate of sample 460-252992-1. Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Sample 140_FB-8 (460-252650-3) was analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared and analyzed on 02/22/2022.

for the duplicate of sample 460-252854-2. Refer to the QC report for details.

No other difficulties were encountered during the Total Metals (ICP/MS) analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 02/19/2022 and analyzed on 02/20/2022.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample 140_FB-8 (460-252650-3) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 02/17/2022.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample 140_FB-8 (460-252650-3) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 02/21/2022.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Job ID: 460-252650-1 (Continued)

Laboratory: Eurofins Edison (Continued)

TOTAL MERCURY

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 02/22/2022.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 02/20/2022.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Sample 140_FB-8 (460-252650-3) was analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 02/20/2022.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 02/21/2022.

Cyanide, Total failed the recovery criteria high for the MSD of sample 460-252638-6 in batch 460-829518.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Sample 140_FB-8 (460-252650-3) was analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 02/20/2022.

Cyanide, Total failed the recovery criteria high for the MSD of sample 460-252692-1 in batch 460-829319.

Cyanide, Total failed the recovery criteria high for the MS of sample 460-252692-1 in batch 460-829319.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Job ID: 460-252650-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Samples 138_PE-4 (460-252650-1) and 139_DUP-7 (460-252650-2) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 02/21/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Sample 140_FB-8 (460-252650-3) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA. The samples were prepared on 02/21/2022 and analyzed on 02/23/2022.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 138_PE-4

Lab Sample ID: 460-252650-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.56	J	0.86	0.49	ug/Kg	1	✱	8260D	Total/NA
Dibenzofuran	6.2	J	390	5.5	ug/Kg	1	✱	8270E	Total/NA
Fluorene	12	J	390	5.3	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	110	J	390	6.9	ug/Kg	1	✱	8270E	Total/NA
Anthracene	26	J	390	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	94	J	390	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	120	J	390	9.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	52		39	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	52	J	390	6.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	46		39	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	20	J	39	7.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	42		39	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	25	J	39	15	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	22	J	390	12	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	0.064	J	0.23	0.041	ug/Kg	1	✱	537 (Modified)	Total/NA
Perfluorooctanoic acid	0.027	J	0.23	0.026	ug/Kg	1	✱	537 (Modified)	Total/NA
Arsenic	1.1		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	15.5		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.19	J	0.44	0.063	mg/Kg	1	✱	6020B	Total/NA
Chromium	6.9		2.2	0.29	mg/Kg	1	✱	6020B	Total/NA
Copper	6.2		2.2	0.41	mg/Kg	1	✱	6020B	Total/NA
Manganese	121		4.4	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.3		2.2	0.52	mg/Kg	1	✱	6020B	Total/NA
Lead	9.0		0.66	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	16.9		8.8	3.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.019		0.019	0.0090	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	6.9		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 139_DUP-7

Lab Sample ID: 460-252650-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.70		0.70	0.40	ug/Kg	1	✱	8260D	Total/NA
Phenanthrene	22	J	400	7.1	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	32	J	400	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	39	J	400	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	25	J	40	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	20	J	400	6.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	20	J	40	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	18	J	40	11	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	0.065	J	0.24	0.043	ug/Kg	1	✱	537 (Modified)	Total/NA
Arsenic	1.1	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	16.8		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.19	J	0.47	0.066	mg/Kg	1	✱	6020B	Total/NA
Chromium	7.5		2.3	0.31	mg/Kg	1	✱	6020B	Total/NA
Copper	6.2		2.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Manganese	144		4.7	0.47	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.1		2.3	0.55	mg/Kg	1	✱	6020B	Total/NA
Lead	9.2		0.70	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	15.8		9.3	3.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.015	J	0.020	0.0093	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	7.5		2.0	2.0	mg/Kg	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 140_FB-8

Lab Sample ID: 460-252650-3

☐ No Detections.

Client Sample ID: 141_TB-13

Lab Sample ID: 460-252650-4

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 138_PE-4

Lab Sample ID: 460-252650-1

Date Collected: 02/16/22 13:30

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 84.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.43	U	0.43	0.10	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,1-Dichloroethane	0.43	U	0.43	0.089	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,1-Dichloroethene	0.43	U	0.43	0.097	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,2,4-Trimethylbenzene	0.43	U	0.43	0.11	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,2-Dichlorobenzene	0.43	U	0.43	0.16	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,2-Dichloroethane	0.43	U	0.43	0.13	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,3,5-Trimethylbenzene	0.43	U	0.43	0.14	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,3-Dichlorobenzene	0.43	U	0.43	0.16	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,4-Dichlorobenzene	0.43	U	0.43	0.097	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
1,4-Dioxane	43	U	43	4.0	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
2-Butanone (MEK)	2.2	U	2.2	0.16	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Acetone	2.6	U	2.6	2.5	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Benzene	0.43	U	0.43	0.11	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Carbon tetrachloride	0.43	U	0.43	0.17	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Chlorobenzene	0.43	U	0.43	0.076	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Chloroform	0.43	U	0.43	0.42	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
cis-1,2-Dichloroethene	0.43	U	0.43	0.15	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Ethylbenzene	0.43	U	0.43	0.086	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Methyl tert-butyl ether	0.43	U	0.43	0.22	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Methylene Chloride	0.56	J	0.86	0.49	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
n-Butylbenzene	0.43	U	0.43	0.13	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
N-Propylbenzene	0.43	U	0.43	0.076	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
sec-Butylbenzene	0.43	U	0.43	0.12	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
tert-Butylbenzene	0.43	U	0.43	0.12	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Tetrachloroethene	0.43	U	0.43	0.13	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Toluene	0.43	U	0.43	0.10	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
trans-1,2-Dichloroethene	0.43	U	0.43	0.11	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Trichloroethene	0.43	U	0.43	0.14	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Vinyl chloride	0.43	U	0.43	0.24	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1
Xylenes, Total	0.86	U	0.86	0.28	ug/Kg	☆	02/17/22 09:26	02/20/22 07:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 145	02/17/22 09:26	02/20/22 07:46	1
4-Bromofluorobenzene	84		70 - 139	02/17/22 09:26	02/20/22 07:46	1
Dibromofluoromethane (Surr)	113		48 - 150	02/17/22 09:26	02/20/22 07:46	1
Toluene-d8 (Surr)	103		80 - 120	02/17/22 09:26	02/20/22 07:46	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
2-Methylphenol	390	U	390	15	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
Pentachlorophenol	310	U	310	80	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
Naphthalene	390	U	390	6.7	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
Acenaphthylene	390	U	390	3.9	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
Acenaphthene	390	U	390	11	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
Dibenzofuran	6.2	J	390	5.5	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
Fluorene	12	J	390	5.3	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
Hexachlorobenzene	39	U	39	19	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1
Phenanthrene	110	J	390	6.9	ug/Kg	☆	02/18/22 10:22	02/18/22 21:38	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 138_PE-4

Lab Sample ID: 460-252650-1

Date Collected: 02/16/22 13:30

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 84.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	26	J	390	12	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Fluoranthene	94	J	390	14	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Pyrene	120	J	390	9.7	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Benzo[a]anthracene	52		39	14	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Chrysene	52	J	390	6.6	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Benzo[b]fluoranthene	46		39	10	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Benzo[k]fluoranthene	20	J	39	7.6	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Benzo[a]pyrene	42		39	10	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Indeno[1,2,3-cd]pyrene	25	J	39	15	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
Benzo[g,h,i]perylene	22	J	390	12	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1
1,4-Dioxane	39	U	39	34	ug/Kg	✱	02/18/22 10:22	02/18/22 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	78		11 - 104	02/18/22 10:22	02/18/22 21:38	1
Phenol-d5 (Surr)	82		15 - 100	02/18/22 10:22	02/18/22 21:38	1
Terphenyl-d14 (Surr)	97		12 - 126	02/18/22 10:22	02/18/22 21:38	1
2,4,6-Tribromophenol (Surr)	91		10 - 123	02/18/22 10:22	02/18/22 21:38	1
2-Fluorophenol (Surr)	79		10 - 105	02/18/22 10:22	02/18/22 21:38	1
2-Fluorobiphenyl	80		14 - 103	02/18/22 10:22	02/18/22 21:38	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.9	U	7.9	1.3	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
4,4'-DDE	7.9	U	7.9	0.93	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
4,4'-DDT	7.9	U	7.9	1.4	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Aldrin	7.9	U	7.9	1.2	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
alpha-BHC	2.4	U	2.4	0.80	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
beta-BHC	2.4	U	2.4	0.88	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Chlordane (technical)	79	U	79	19	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
delta-BHC	2.4	U	2.4	0.48	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Endosulfan I	7.9	U	7.9	1.2	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Endosulfan II	7.9	U	7.9	2.0	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Endosulfan sulfate	7.9	U	7.9	0.99	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Endrin	7.9	U	7.9	1.1	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Endrin aldehyde	7.9	U	7.9	1.9	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Endrin ketone	7.9	U	7.9	1.5	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
gamma-BHC (Lindane)	2.4	U	2.4	0.73	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Heptachlor	7.9	U	7.9	0.93	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Heptachlor epoxide	7.9	U	7.9	1.2	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Methoxychlor	7.9	U	7.9	1.8	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
Toxaphene	79	U	79	28	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1
cis-Chlordane	7.9	U	7.9	1.2	ug/Kg	✱	02/17/22 16:58	02/18/22 05:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		10 - 150	02/17/22 16:58	02/18/22 05:28	1
DCB Decachlorobiphenyl	64		10 - 150	02/17/22 16:58	02/18/22 05:28	1
Tetrachloro-m-xylene	62		10 - 133	02/17/22 16:58	02/18/22 05:28	1
Tetrachloro-m-xylene	59		10 - 133	02/17/22 16:58	02/18/22 05:28	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 138_PE-4

Lab Sample ID: 460-252650-1

Date Collected: 02/16/22 13:30

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 84.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Aroclor 1221	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Aroclor 1232	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Aroclor 1242	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Aroclor 1248	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Aroclor 1254	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Aroclor 1260	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Aroclor-1262	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Aroclor 1268	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1
Polychlorinated biphenyls, Total	79	U	79	21	ug/Kg	☆	02/17/22 16:54	02/18/22 10:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	111		37 - 150	02/17/22 16:54	02/18/22 10:08	1
DCB Decachlorobiphenyl	105		37 - 150	02/17/22 16:54	02/18/22 10:08	1
Tetrachloro-m-xylene	92		54 - 150	02/17/22 16:54	02/18/22 10:08	1
Tetrachloro-m-xylene	89		54 - 150	02/17/22 16:54	02/18/22 10:08	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	☆	02/18/22 01:50	02/20/22 13:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		65 - 150	02/18/22 01:50	02/20/22 13:12	1
2,4-Dichlorophenylacetic acid	132		65 - 150	02/18/22 01:50	02/20/22 13:12	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.23	U	0.23	0.057	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
8:2 Fluorotelomer sulfonic acid	0.23	U	0.23	0.020	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
NEtFOSAA	0.23	U	0.23	0.026	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
NMeFOSAA	0.23	U	0.23	0.036	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorobutanesulfonic acid	0.47	U	0.47	0.42	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorobutanoic acid	0.23	U	0.23	0.028	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorodecanesulfonic acid	0.23	U	0.23	0.025	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorodecanoic acid	0.23	U	0.23	0.028	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorododecanoic acid	0.23	U	0.23	0.027	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluoroheptanesulfonic acid	0.23	U	0.23	0.023	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluoroheptanoic acid	0.23	U	0.23	0.028	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorohexanesulfonic acid	0.23	U	0.23	0.022	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorohexanoic acid	0.23	U	0.23	0.022	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorononanoic acid	0.23	U	0.23	0.027	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorooctanesulfonamide	0.23	U	0.23	0.025	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorooctanesulfonic acid	0.064	J	0.23	0.041	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorooctanoic acid	0.027	J	0.23	0.026	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluoropentanoic acid	0.23	U	0.23	0.028	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorotetradecanoic acid	0.23	U	0.23	0.028	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluorotridecanoic acid	0.23	U	0.23	0.025	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1
Perfluoroundecanoic acid	0.23	U	0.23	0.066	ug/Kg	☆	02/22/22 21:30	02/25/22 01:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	84		10 - 200	02/22/22 21:30	02/25/22 01:46	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 138_PE-4

Lab Sample ID: 460-252650-1

Date Collected: 02/16/22 13:30

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 84.7

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	85		15 - 200	02/22/22 21:30	02/25/22 01:46	1
13C2 PFTeDA	80		10 - 169	02/22/22 21:30	02/25/22 01:46	1
13C3 PFBS	89		27 - 179	02/22/22 21:30	02/25/22 01:46	1
13C4 PFBA	83		28 - 153	02/22/22 21:30	02/25/22 01:46	1
13C4 PFHpA	82		10 - 178	02/22/22 21:30	02/25/22 01:46	1
13C5 PFPeA	82		24 - 161	02/22/22 21:30	02/25/22 01:46	1
13C8 PFOA	83		26 - 159	02/22/22 21:30	02/25/22 01:46	1
13C8 PFOS	86		41 - 154	02/22/22 21:30	02/25/22 01:46	1
d3-NMeFOSAA	86		10 - 178	02/22/22 21:30	02/25/22 01:46	1
d5-NEtFOSAA	86		10 - 193	02/22/22 21:30	02/25/22 01:46	1
13C3 PFHxS	87		24 - 171	02/22/22 21:30	02/25/22 01:46	1
13C5 PFHxA	80		10 - 174	02/22/22 21:30	02/25/22 01:46	1
13C6 PFDA	84		26 - 161	02/22/22 21:30	02/25/22 01:46	1
13C7 PFUnA	79		12 - 173	02/22/22 21:30	02/25/22 01:46	1
13C8 FOSA	45		14 - 163	02/22/22 21:30	02/25/22 01:46	1
13C2-PFDoDA	76		11 - 166	02/22/22 21:30	02/25/22 01:46	1
13C9 PFNA	84		26 - 165	02/22/22 21:30	02/25/22 01:46	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.098	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Arsenic	1.1		1.1	0.11	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Barium	15.5		2.2	0.16	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Beryllium	0.19	J	0.44	0.063	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Chromium	6.9		2.2	0.29	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Copper	6.2		2.2	0.41	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Manganese	121		4.4	0.44	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Nickel	6.3		2.2	0.52	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Lead	9.0		0.66	0.22	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Selenium	1.4	U	1.4	0.14	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1
Zinc	16.9		8.8	3.4	mg/Kg	✱	02/26/22 07:55	02/26/22 14:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.019	0.0090	mg/Kg	✱	02/22/22 04:42	02/22/22 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	6.9		2.0	2.0	mg/Kg			02/20/22 18:10	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	02/19/22 10:07	02/20/22 15:13	1
Cyanide, Total	0.28	U	0.28	0.15	mg/Kg	✱	02/21/22 18:54	02/21/22 22:23	1
Percent Moisture	15.3		1.0	1.0	%			02/21/22 10:57	1
Percent Solids	84.7		1.0	1.0	%			02/21/22 10:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 139_DUP-7

Lab Sample ID: 460-252650-2

Date Collected: 02/16/22 13:24

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 81.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.35	U	0.35	0.082	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,1-Dichloroethane	0.35	U	0.35	0.072	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,1-Dichloroethene	0.35	U	0.35	0.079	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,2,4-Trimethylbenzene	0.35	U	0.35	0.086	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,2-Dichlorobenzene	0.35	U	0.35	0.13	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,2-Dichloroethane	0.35	U	0.35	0.10	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,3,5-Trimethylbenzene	0.35	U	0.35	0.11	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,3-Dichlorobenzene	0.35	U	0.35	0.13	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,4-Dichlorobenzene	0.35	U	0.35	0.079	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
1,4-Dioxane	35	U	35	3.2	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
2-Butanone (MEK)	1.8	U	1.8	0.13	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Acetone	2.1	U	2.1	2.0	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Benzene	0.35	U	0.35	0.091	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Carbon tetrachloride	0.35	U	0.35	0.14	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Chlorobenzene	0.35	U	0.35	0.062	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Chloroform	0.35	U	0.35	0.34	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
cis-1,2-Dichloroethene	0.35	U	0.35	0.13	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Ethylbenzene	0.35	U	0.35	0.070	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Methyl tert-butyl ether	0.35	U	0.35	0.18	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Methylene Chloride	0.70		0.70	0.40	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
n-Butylbenzene	0.35	U	0.35	0.10	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
N-Propylbenzene	0.35	U	0.35	0.061	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
sec-Butylbenzene	0.35	U	0.35	0.10	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
tert-Butylbenzene	0.35	U	0.35	0.097	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Tetrachloroethene	0.35	U	0.35	0.11	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Toluene	0.35	U	0.35	0.082	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
trans-1,2-Dichloroethene	0.35	U	0.35	0.086	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Trichloroethene	0.35	U	0.35	0.11	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Vinyl chloride	0.35	U	0.35	0.19	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1
Xylenes, Total	0.70	U	0.70	0.23	ug/Kg	☆	02/17/22 09:26	02/20/22 08:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		77 - 145	02/17/22 09:26	02/20/22 08:09	1
4-Bromofluorobenzene	91		70 - 139	02/17/22 09:26	02/20/22 08:09	1
Dibromofluoromethane (Surr)	119		48 - 150	02/17/22 09:26	02/20/22 08:09	1
Toluene-d8 (Surr)	114		80 - 120	02/17/22 09:26	02/20/22 08:09	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
2-Methylphenol	400	U	400	15	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
Pentachlorophenol	330	U	330	83	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
Naphthalene	400	U	400	7.0	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
Acenaphthylene	400	U	400	4.1	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
Acenaphthene	400	U	400	12	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
Dibenzofuran	400	U	400	5.7	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
Fluorene	400	U	400	5.5	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
Hexachlorobenzene	40	U	40	19	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1
Phenanthrene	22	J	400	7.1	ug/Kg	☆	02/18/22 10:22	02/18/22 22:02	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 139_DUP-7

Lab Sample ID: 460-252650-2

Date Collected: 02/16/22 13:24

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 81.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	400	U	400	12	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Fluoranthene	32	J	400	14	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Pyrene	39	J	400	10	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Benzo[a]anthracene	25	J	40	14	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Chrysene	20	J	400	6.8	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Benzo[b]fluoranthene	20	J	40	10	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Benzo[k]fluoranthene	40	U	40	7.9	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Benzo[a]pyrene	18	J	40	11	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Dibenz(a,h)anthracene	40	U	40	18	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	02/18/22 10:22	02/18/22 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	74		11 - 104	02/18/22 10:22	02/18/22 22:02	1
Phenol-d5 (Surr)	76		15 - 100	02/18/22 10:22	02/18/22 22:02	1
Terphenyl-d14 (Surr)	86		12 - 126	02/18/22 10:22	02/18/22 22:02	1
2,4,6-Tribromophenol (Surr)	75		10 - 123	02/18/22 10:22	02/18/22 22:02	1
2-Fluorophenol (Surr)	76		10 - 105	02/18/22 10:22	02/18/22 22:02	1
2-Fluorobiphenyl	76		14 - 103	02/18/22 10:22	02/18/22 22:02	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.2	U	8.2	1.4	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
4,4'-DDE	8.2	U	8.2	0.96	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
4,4'-DDT	8.2	U	8.2	1.5	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Aldrin	8.2	U	8.2	1.2	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
alpha-BHC	2.4	U	2.4	0.83	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
beta-BHC	2.4	U	2.4	0.91	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Chlordane (technical)	82	U	82	20	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Endosulfan I	8.2	U	8.2	1.2	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Endosulfan II	8.2	U	8.2	2.1	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Endosulfan sulfate	8.2	U	8.2	1.0	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Endrin	8.2	U	8.2	1.2	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Endrin aldehyde	8.2	U	8.2	1.9	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Endrin ketone	8.2	U	8.2	1.6	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
gamma-BHC (Lindane)	2.4	U	2.4	0.76	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Heptachlor	8.2	U	8.2	0.96	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Heptachlor epoxide	8.2	U	8.2	1.2	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Methoxychlor	8.2	U	8.2	1.9	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
Toxaphene	82	U	82	29	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1
cis-Chlordane	8.2	U	8.2	1.3	ug/Kg	✱	02/17/22 16:58	02/18/22 05:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		10 - 150	02/17/22 16:58	02/18/22 05:44	1
DCB Decachlorobiphenyl	77		10 - 150	02/17/22 16:58	02/18/22 05:44	1
Tetrachloro-m-xylene	76		10 - 133	02/17/22 16:58	02/18/22 05:44	1
Tetrachloro-m-xylene	72		10 - 133	02/17/22 16:58	02/18/22 05:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 139_DUP-7

Lab Sample ID: 460-252650-2

Date Collected: 02/16/22 13:24

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 81.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Aroclor 1221	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Aroclor 1232	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Aroclor 1242	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Aroclor 1248	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Aroclor 1254	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Aroclor 1260	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Aroclor-1262	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Aroclor 1268	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1
Polychlorinated biphenyls, Total	82	U	82	22	ug/Kg	✱	02/17/22 16:54	02/18/22 10:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	105		37 - 150	02/17/22 16:54	02/18/22 10:24	1
DCB Decachlorobiphenyl	109		37 - 150	02/17/22 16:54	02/18/22 10:24	1
Tetrachloro-m-xylene	103		54 - 150	02/17/22 16:54	02/18/22 10:24	1
Tetrachloro-m-xylene	100		54 - 150	02/17/22 16:54	02/18/22 10:24	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	41	U	41	4.2	ug/Kg	✱	02/18/22 01:50	02/20/22 13:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		65 - 150	02/18/22 01:50	02/20/22 13:25	1
2,4-Dichlorophenylacetic acid	130		65 - 150	02/18/22 01:50	02/20/22 13:25	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.060	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
8:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.021	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
NEtFOSAA	0.24	U	0.24	0.027	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
NMeFOSAA	0.24	U	0.24	0.038	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorobutanesulfonic acid	0.49	U	0.49	0.44	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorobutanoic acid	0.24	U	0.24	0.029	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorodecanesulfonic acid	0.24	U	0.24	0.026	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorodecanoic acid	0.24	U	0.24	0.029	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorododecanoic acid	0.24	U	0.24	0.028	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluoroheptanesulfonic acid	0.24	U	0.24	0.024	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluoroheptanoic acid	0.24	U	0.24	0.029	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorohexanesulfonic acid	0.24	U	0.24	0.023	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorohexanoic acid	0.24	U	0.24	0.023	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorononanoic acid	0.24	U	0.24	0.028	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorooctanesulfonamide	0.24	U	0.24	0.026	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorooctanesulfonic acid	0.065	J	0.24	0.043	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorooctanoic acid	0.24	U	0.24	0.027	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluoropentanoic acid	0.24	U	0.24	0.029	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorotetradecanoic acid	0.24	U	0.24	0.029	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluorotridecanoic acid	0.24	U	0.24	0.026	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1
Perfluoroundecanoic acid	0.24	U	0.24	0.068	ug/Kg	✱	02/22/22 21:30	02/25/22 01:57	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	73		10 - 200	02/22/22 21:30	02/25/22 01:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 139_DUP-7

Lab Sample ID: 460-252650-2

Date Collected: 02/16/22 13:24

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 81.8

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	71		15 - 200	02/22/22 21:30	02/25/22 01:57	1
13C2 PFTeDA	68		10 - 169	02/22/22 21:30	02/25/22 01:57	1
13C3 PFBS	79		27 - 179	02/22/22 21:30	02/25/22 01:57	1
13C4 PFBA	74		28 - 153	02/22/22 21:30	02/25/22 01:57	1
13C4 PFHpA	71		10 - 178	02/22/22 21:30	02/25/22 01:57	1
13C5 PFPeA	74		24 - 161	02/22/22 21:30	02/25/22 01:57	1
13C8 PFOA	75		26 - 159	02/22/22 21:30	02/25/22 01:57	1
13C8 PFOS	74		41 - 154	02/22/22 21:30	02/25/22 01:57	1
d3-NMeFOSAA	75		10 - 178	02/22/22 21:30	02/25/22 01:57	1
d5-NEtFOSAA	72		10 - 193	02/22/22 21:30	02/25/22 01:57	1
13C3 PFHxS	78		24 - 171	02/22/22 21:30	02/25/22 01:57	1
13C5 PFHxA	71		10 - 174	02/22/22 21:30	02/25/22 01:57	1
13C6 PFDA	70		26 - 161	02/22/22 21:30	02/25/22 01:57	1
13C7 PFUnA	67		12 - 173	02/22/22 21:30	02/25/22 01:57	1
13C8 FOSA	40		14 - 163	02/22/22 21:30	02/25/22 01:57	1
13C2-PFDoDA	66		11 - 166	02/22/22 21:30	02/25/22 01:57	1
13C9 PFNA	72		26 - 165	02/22/22 21:30	02/25/22 01:57	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.10	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Arsenic	1.1	J	1.2	0.12	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Barium	16.8		2.3	0.17	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Beryllium	0.19	J	0.47	0.066	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Chromium	7.5		2.3	0.31	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Copper	6.2		2.3	0.43	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Manganese	144		4.7	0.47	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Nickel	6.1		2.3	0.55	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Lead	9.2		0.70	0.23	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Selenium	1.5	U	1.5	0.15	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1
Zinc	15.8		9.3	3.5	mg/Kg	✱	02/26/22 07:55	02/26/22 14:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.020	0.0093	mg/Kg	✱	02/22/22 04:42	02/22/22 10:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	7.5		2.0	2.0	mg/Kg			02/20/22 18:10	1
Cr (VI)	2.5	U	2.5	1.0	mg/Kg	✱	02/19/22 10:07	02/20/22 15:13	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	✱	02/21/22 18:54	02/21/22 22:24	1
Percent Moisture	18.2		1.0	1.0	%			02/21/22 10:57	1
Percent Solids	81.8		1.0	1.0	%			02/21/22 10:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 140_FB-8

Lab Sample ID: 460-252650-3

Date Collected: 02/16/22 14:20

Matrix: Water

Date Received: 02/16/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/22/22 08:45	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/22/22 08:45	1
Acetone	5.0	U	5.0	4.4	ug/L			02/22/22 08:45	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/22/22 08:45	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/22/22 08:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/22/22 08:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/22/22 08:45	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/22/22 08:45	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/22/22 08:45	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/22/22 08:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/22/22 08:45	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/22/22 08:45	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/22/22 08:45	1
Benzene	1.0	U	1.0	0.20	ug/L			02/22/22 08:45	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/22/22 08:45	1
Toluene	1.0	U	1.0	0.38	ug/L			02/22/22 08:45	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/22/22 08:45	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/22/22 08:45	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/22/22 08:45	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/22/22 08:45	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/22/22 08:45	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/22/22 08:45	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/22/22 08:45	1
1,4-Dioxane	50	U	50	28	ug/L			02/22/22 08:45	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/22/22 08:45	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/22/22 08:45	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/22/22 08:45	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/22/22 08:45	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/22/22 08:45	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/22/22 08:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		75 - 123		02/22/22 08:45	1
Toluene-d8 (Surr)	106		80 - 120		02/22/22 08:45	1
4-Bromofluorobenzene	87		76 - 120		02/22/22 08:45	1
Dibromofluoromethane (Surr)	99		77 - 124		02/22/22 08:45	1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.072	ug/L		02/17/22 10:00	02/18/22 02:56	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	11		10 - 150				02/17/22 10:00	02/18/22 02:56	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.010	U	0.010	0.00029	mg/L		02/18/22 07:45	02/19/22 01:13	1
2-Methylphenol	0.010	U	0.010	0.00067	mg/L		02/18/22 07:45	02/19/22 01:13	1
3 & 4 Methylphenol	0.010	U	0.010	0.00064	mg/L		02/18/22 07:45	02/19/22 01:13	1
Pentachlorophenol	0.020	U	0.020	0.0014	mg/L		02/18/22 07:45	02/19/22 01:13	1
Naphthalene	0.0020	U	0.0020	0.00054	mg/L		02/18/22 07:45	02/19/22 01:13	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 140_FB-8

Lab Sample ID: 460-252650-3

Date Collected: 02/16/22 14:20

Matrix: Water

Date Received: 02/16/22 19:00

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.010	U	0.010	0.00082	mg/L		02/18/22 07:45	02/19/22 01:13	1
Acenaphthene	0.010	U	0.010	0.0011	mg/L		02/18/22 07:45	02/19/22 01:13	1
Dibenzofuran	0.010	U	0.010	0.0011	mg/L		02/18/22 07:45	02/19/22 01:13	1
Fluorene	0.010	U	0.010	0.00091	mg/L		02/18/22 07:45	02/19/22 01:13	1
Hexachlorobenzene	0.0010	U	0.0010	0.00040	mg/L		02/18/22 07:45	02/19/22 01:13	1
Phenanthrene	0.010	U	0.010	0.0013	mg/L		02/18/22 07:45	02/19/22 01:13	1
Anthracene	0.010	U	0.010	0.0013	mg/L		02/18/22 07:45	02/19/22 01:13	1
Fluoranthene	0.010	U	0.010	0.00084	mg/L		02/18/22 07:45	02/19/22 01:13	1
Pyrene	0.010	U	0.010	0.0016	mg/L		02/18/22 07:45	02/19/22 01:13	1
Benzo[a]anthracene	0.0010	U	0.0010	0.00059	mg/L		02/18/22 07:45	02/19/22 01:13	1
Chrysene	0.0020	U	0.0020	0.00091	mg/L		02/18/22 07:45	02/19/22 01:13	1
Benzo[b]fluoranthene	0.0020	U	0.0020	0.00068	mg/L		02/18/22 07:45	02/19/22 01:13	1
Benzo[k]fluoranthene	0.0010	U	0.0010	0.00067	mg/L		02/18/22 07:45	02/19/22 01:13	1
Benzo[a]pyrene	0.0010	U	0.0010	0.00041	mg/L		02/18/22 07:45	02/19/22 01:13	1
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0020	0.00094	mg/L		02/18/22 07:45	02/19/22 01:13	1
Dibenz(a,h)anthracene	0.0010	U	0.0010	0.00072	mg/L		02/18/22 07:45	02/19/22 01:13	1
Benzo[g,h,i]perylene	0.010	U	0.010	0.00070	mg/L		02/18/22 07:45	02/19/22 01:13	1
1,4-Dioxane	10	U	10	1.6	ug/L		02/18/22 07:45	02/19/22 01:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	82		46 - 137	02/18/22 07:45	02/19/22 01:13	1
Phenol-d5 (Surr)	25		10 - 50	02/18/22 07:45	02/19/22 01:13	1
Terphenyl-d14 (Surr)	103		39 - 150	02/18/22 07:45	02/19/22 01:13	1
2,4,6-Tribromophenol (Surr)	96		33 - 150	02/18/22 07:45	02/19/22 01:13	1
2-Fluorophenol (Surr)	39		18 - 72	02/18/22 07:45	02/19/22 01:13	1
2-Fluorobiphenyl	90		42 - 127	02/18/22 07:45	02/19/22 01:13	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 06:40	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		02/17/22 09:56	02/18/22 06:40	1
beta-BHC	0.020	U	0.020	0.015	ug/L		02/17/22 09:56	02/18/22 06:40	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		02/17/22 09:56	02/18/22 06:40	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		02/17/22 09:56	02/18/22 06:40	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		02/17/22 09:56	02/18/22 06:40	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		02/17/22 09:56	02/18/22 06:40	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 06:40	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 06:40	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 06:40	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 06:40	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 06:40	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		02/17/22 09:56	02/18/22 06:40	1
Endrin	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 06:40	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		02/17/22 09:56	02/18/22 06:40	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		02/17/22 09:56	02/18/22 06:40	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 06:40	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		02/17/22 09:56	02/18/22 06:40	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 06:40	1
Toxaphene	0.50	U	0.50	0.11	ug/L		02/17/22 09:56	02/18/22 06:40	1
cis-Chlordane	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 06:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 140_FB-8

Lab Sample ID: 460-252650-3

Date Collected: 02/16/22 14:20

Matrix: Water

Date Received: 02/16/22 19:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		10 - 150	02/17/22 09:56	02/18/22 06:40	1
Tetrachloro-m-xylene	56		10 - 150	02/17/22 09:56	02/18/22 06:40	1
DCB Decachlorobiphenyl	57		10 - 150	02/17/22 09:56	02/18/22 06:40	1
DCB Decachlorobiphenyl	65		10 - 150	02/17/22 09:56	02/18/22 06:40	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 13:51	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 13:51	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 13:51	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 13:51	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 13:51	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 13:51	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 13:51	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 13:51	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 13:51	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 13:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		10 - 138	02/17/22 10:02	02/18/22 13:51	1
DCB Decachlorobiphenyl	92		10 - 138	02/17/22 10:02	02/18/22 13:51	1
Tetrachloro-m-xylene	60		10 - 150	02/17/22 10:02	02/18/22 13:51	1
Tetrachloro-m-xylene	83		10 - 150	02/17/22 10:02	02/18/22 13:51	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		02/18/22 01:49	02/18/22 10:53	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		02/18/22 01:49	02/18/22 10:53	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		02/18/22 01:49	02/18/22 10:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	119		28 - 150	02/18/22 01:49	02/18/22 10:53	1
2,4-Dichlorophenylacetic acid	114		28 - 150	02/18/22 01:49	02/18/22 10:53	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluoroheptanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorooctanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorononanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorodecanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorotridecanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorotetradecanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorobutanesulfonic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorohexanesulfonic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorooctanesulfonic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
NEtFOSAA	2.65	U	2.65	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
NMeFOSAA	1.77	U	1.77	0.53	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluoroheptanesulfonic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorodecanesulfonic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorooctanesulfonamide	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 140_FB-8

Lab Sample ID: 460-252650-3

Date Collected: 02/16/22 14:20

Matrix: Water

Date Received: 02/16/22 19:00

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	4.42	U	4.42	1.77	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluoroundecanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluorododecanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
6:2 Fluorotelomer sulfonic acid	4.42	U	4.42	1.77	ng/L		02/21/22 17:01	02/23/22 12:02	1
8:2 Fluorotelomer sulfonic acid	2.65	U	2.65	0.88	ng/L		02/21/22 17:01	02/23/22 12:02	1
Perfluoropentanoic acid	1.77	U	1.77	0.44	ng/L		02/21/22 17:01	02/23/22 12:02	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	105		33 - 200				02/21/22 17:01	02/23/22 12:02	1
M2-6:2 FTS	125		17 - 200				02/21/22 17:01	02/23/22 12:02	1
13C5 PFHxA	109		24 - 179				02/21/22 17:01	02/23/22 12:02	1
13C4 PFHpA	106		31 - 182				02/21/22 17:01	02/23/22 12:02	1
13C8 PFOA	111		48 - 162				02/21/22 17:01	02/23/22 12:02	1
13C9 PFNA	104		51 - 167				02/21/22 17:01	02/23/22 12:02	1
13C6 PFDA	102		49 - 163				02/21/22 17:01	02/23/22 12:02	1
13C7 PFUnA	99		34 - 174				02/21/22 17:01	02/23/22 12:02	1
13C2-PFDoDA	94		17 - 176				02/21/22 17:01	02/23/22 12:02	1
13C2 PFTeDA	94		10 - 179				02/21/22 17:01	02/23/22 12:02	1
13C3 PFBS	107		16 - 200				02/21/22 17:01	02/23/22 12:02	1
13C3 PFHxS	118		28 - 188				02/21/22 17:01	02/23/22 12:02	1
13C8 PFOS	106		51 - 159				02/21/22 17:01	02/23/22 12:02	1
d3-NMeFOSAA	94		31 - 174				02/21/22 17:01	02/23/22 12:02	1
d5-NEtFOSAA	99		29 - 195				02/21/22 17:01	02/23/22 12:02	1
13C8 FOSA	86		10 - 168				02/21/22 17:01	02/23/22 12:02	1
13C4 PFBA	103		42 - 165				02/21/22 17:01	02/23/22 12:02	1
13C5 PFPeA	103		38 - 187				02/21/22 17:01	02/23/22 12:02	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		02/22/22 08:35	02/22/22 10:19	1
Arsenic	2.0	U	2.0	0.89	ug/L		02/22/22 08:35	02/22/22 10:19	1
Barium	4.0	U	4.0	0.91	ug/L		02/22/22 08:35	02/22/22 10:19	1
Beryllium	0.80	U	0.80	0.13	ug/L		02/22/22 08:35	02/22/22 10:19	1
Cadmium	2.0	U	2.0	0.39	ug/L		02/22/22 08:35	02/22/22 10:19	1
Chromium	4.0	U	4.0	2.5	ug/L		02/22/22 08:35	02/22/22 10:19	1
Copper	4.0	U	4.0	2.5	ug/L		02/22/22 08:35	02/22/22 10:19	1
Manganese	8.0	U	8.0	1.5	ug/L		02/22/22 08:35	02/22/22 10:19	1
Nickel	4.0	U	4.0	0.91	ug/L		02/22/22 08:35	02/22/22 10:19	1
Lead	1.2	U	1.2	0.84	ug/L		02/22/22 08:35	02/22/22 10:19	1
Selenium	2.5	U	2.5	0.59	ug/L		02/22/22 08:35	02/22/22 10:19	1
Zinc	16.0	U	16.0	6.5	ug/L		02/22/22 08:35	02/22/22 10:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		02/21/22 10:53	02/21/22 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.0	U	10.0	10.0	ug/L			02/20/22 18:10	1
Cr (VI)	10.0	U	10.0	8.1	ug/L			02/17/22 12:55	1
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		02/20/22 12:15	02/20/22 14:55	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 141_TB-13

Lab Sample ID: 460-252650-4

Date Collected: 02/16/22 14:20

Matrix: Water

Date Received: 02/16/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/21/22 19:32	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/21/22 19:32	1
Acetone	5.0	U	5.0	4.4	ug/L			02/21/22 19:32	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/21/22 19:32	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/21/22 19:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/21/22 19:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/21/22 19:32	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/21/22 19:32	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/21/22 19:32	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/21/22 19:32	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/21/22 19:32	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/21/22 19:32	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/21/22 19:32	1
Benzene	1.0	U	1.0	0.20	ug/L			02/21/22 19:32	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/21/22 19:32	1
Toluene	1.0	U	1.0	0.38	ug/L			02/21/22 19:32	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/21/22 19:32	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/21/22 19:32	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/21/22 19:32	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/21/22 19:32	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/21/22 19:32	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/21/22 19:32	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/21/22 19:32	1
1,4-Dioxane	50	U	50	28	ug/L			02/21/22 19:32	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/21/22 19:32	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/21/22 19:32	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/21/22 19:32	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/21/22 19:32	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/21/22 19:32	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/21/22 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		75 - 123		02/21/22 19:32	1
Toluene-d8 (Surr)	103		80 - 120		02/21/22 19:32	1
4-Bromofluorobenzene	94		76 - 120		02/21/22 19:32	1
Dibromofluoromethane (Surr)	104		77 - 124		02/21/22 19:32	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-252650-1	138_PE-4	106	84	113	103
460-252650-2	139_DUP-7	116	91	119	114
LCS 460-829238/4	Lab Control Sample	101	80	109	104
LCSD 460-829238/5	Lab Control Sample Dup	100	84	109	112
MB 460-829238/9	Method Blank	101	82	108	105

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-252650-3	140_FB-8	117	106	87	99
460-252650-4	141_TB-13	116	103	94	104
LCS 460-829468/3	Lab Control Sample	109	103	94	101
LCS 460-829551/3	Lab Control Sample	113	105	90	99
LCSD 460-829468/4	Lab Control Sample Dup	112	103	96	105
LCSD 460-829551/4	Lab Control Sample Dup	116	105	89	98
MB 460-829468/7	Method Blank	116	103	94	104
MB 460-829551/7	Method Blank	118	106	88	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-252650-1	138_PE-4	78	82	97	91	79	80
460-252650-2	139_DUP-7	74	76	86	75	76	76
LCS 460-829002/2-A	Lab Control Sample	70	73	77	81	70	70
LCSD 460-829002/3-A	Lab Control Sample Dup	71	73	77	80	70	71
MB 460-829002/1-A	Method Blank	88	88	83	91	88	84

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (46-137)	PHL (10-50)	TPHL (39-150)	TBP (33-150)	2FP (18-72)	FBP (42-127)
460-252650-3	140_FB-8	82	25	103	96	39	90
LCS 460-828963/2-A	Lab Control Sample	66	25	84	87	33	69
LCSD 460-828963/3-A	Lab Control Sample Dup	67	24	83	87	34	70
MB 460-828963/1-A	Method Blank	65	17	82	85	27	70

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-252650-1	138_PE-4	64	66	59	62
460-252650-2	139_DUP-7	77	82	72	76
LCS 460-828868/2-A	Lab Control Sample	82	88	79	83
LCSD 460-828868/3-A	Lab Control Sample Dup	81	88	76	80
MB 460-828868/1-A	Method Blank	84	88	78	84

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TCX1 (10-150)	TCX2 (10-150)	DCBP1 (10-150)	DCBP2 (10-150)
460-252650-3	140_FB-8	56	60	65	57
LCS 460-828782/2-A	Lab Control Sample	77	75	78	71
LCSD 460-828782/3-A	Lab Control Sample Dup	73	72	72	69
MB 460-828782/1-A	Method Blank	74	78	85	77

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-252650-1	138_PE-4	105	111	89	92
460-252650-2	139_DUP-7	109	105	100	103

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
LCS 460-828865/2-A	Lab Control Sample	101	97	93	96
LCSD 460-828865/3-A	Lab Control Sample Dup	104	99	95	99
MB 460-828865/1-A	Method Blank	117	108	107	109
Surrogate Legend					
DCBP = DCB Decachlorobiphenyl					
TCX = Tetrachloro-m-xylene					

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCBP1 (10-138)	DCBP2 (10-138)	TCX1 (10-150)	TCX2 (10-150)
460-252650-3	140_FB-8	92	91	83	60
LCS 460-828789/2-A	Lab Control Sample	117	122	112	83
LCSD 460-828789/3-A	Lab Control Sample Dup	117	119	112	82
MB 460-828789/1-A	Method Blank	112	115	106	80
Surrogate Legend					
DCBP = DCB Decachlorobiphenyl					
TCX = Tetrachloro-m-xylene					

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-252650-1	138_PE-4	132	112
460-252650-2	139_DUP-7	130	112
LCS 460-828922/2-A	Lab Control Sample	122	110
LCSD 460-828922/3-A	Lab Control Sample Dup	124	113
MB 460-828922/1-A	Method Blank	113	103
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (28-150)	DCPAA2 (28-150)
460-252650-3	140_FB-8	119	114
LCS 460-828921/2-A	Lab Control Sample	122	112
LCSD 460-828921/3-A	Lab Control Sample Dup	128	117
MB 460-828921/1-A	Method Blank	106	96
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (10-150)
460-252650-3	140_FB-8	11
LCS 460-828785/2-A	Lab Control Sample	23
LCSD 460-828785/3-A	Lab Control Sample Dup	24
MB 460-828785/1-A	Method Blank	26

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (Modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (10-200)	M282FTS (15-200)	PFTDA (10-169)	C3PFBS (27-179)	PFBA (28-153)	C4PFHA (10-178)	PFPeA (24-161)	C8PFOA (26-159)
460-252650-1	138_PE-4	84	85	80	89	83	82	82	83
460-252650-2	139_DUP-7	73	71	68	79	74	71	74	75
LCS 410-226621/2-B	Lab Control Sample	75	70	72	80	76	72	75	77
MB 410-226621/1-B	Method Blank	80	72	73	82	79	77	75	84

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C8PFOS (41-154)	d3NMFOS (10-178)	d5NEFOS (10-193)	C3PFHS (24-171)	13C5PHA (10-174)	C6PFDA (26-161)	13C7PUA (12-173)	PFOSA (14-163)
460-252650-1	138_PE-4	86	86	86	87	80	84	79	45
460-252650-2	139_DUP-7	74	75	72	78	71	70	67	40
LCS 410-226621/2-B	Lab Control Sample	76	58	62	77	72	75	71	67
MB 410-226621/1-B	Method Blank	79	60	62	84	78	79	75	69

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (11-166)	C9PFNA (26-165)
460-252650-1	138_PE-4	76	84
460-252650-2	139_DUP-7	66	72
LCS 410-226621/2-B	Lab Control Sample	71	78
MB 410-226621/1-B	Method Blank	72	79

Surrogate Legend

M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA

Eurofins Edison

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
 Project/Site: 2455 Third Avenue , Bronx, NY
 PFDODA = 13C2-PFDODA
 C9PFNA = 13C9 PFNA

Job ID: 460-252650-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (33-200)	M262FTS (17-200)	13C5PHA (24-179)	C4PFHA (31-182)	C8PFOA (48-162)	C9PFNA (51-167)	C6PFDA (49-163)	13C7PUA (34-174)
460-252650-3	140_FB-8	105	125	109	106	111	104	102	99
LCS 410-226056/2-A	Lab Control Sample	92	102	98	101	106	106	102	102
LCSD 410-226056/3-A	Lab Control Sample Dup	108	108	107	110	113	107	109	110
MB 410-226056/1-A	Method Blank	91	100	99	101	103	103	97	97

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (17-176)	PFTDA (10-179)	C3PFBS (16-200)	C3PFHS (28-188)	C8PFOS (51-159)	d3NMFOS (31-174)	d5NEFOS (29-195)	PFOSA (10-168)
460-252650-3	140_FB-8	94	94	107	118	106	94	99	86
LCS 410-226056/2-A	Lab Control Sample	92	90	101	103	103	89	96	82
LCSD 410-226056/3-A	Lab Control Sample Dup	106	106	107	110	107	102	104	96
MB 410-226056/1-A	Method Blank	89	86	95	97	102	93	87	85

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (42-165)	PFPeA (38-187)
460-252650-3	140_FB-8	103	103
LCS 410-226056/2-A	Lab Control Sample	105	105
LCSD 410-226056/3-A	Lab Control Sample Dup	110	109
MB 410-226056/1-A	Method Blank	99	97

Surrogate Legend

M282FTS = M2-8:2 FTS
 M262FTS = M2-6:2 FTS
 13C5PHA = 13C5 PFHxA
 C4PFHA = 13C4 PFHpA
 C8PFOA = 13C8 PFOA
 C9PFNA = 13C9 PFNA
 C6PFDA = 13C6 PFDA
 13C7PUA = 13C7 PFUnA
 PFDODA = 13C2-PFDODA
 PFTDA = 13C2 PFTeDA
 C3PFBS = 13C3 PFBS
 C3PFHS = 13C3 PFHxS
 C8PFOS = 13C8 PFOS
 d3NMFOS = d3-NMeFOSAA
 d5NEFOS = d5-NEtFOSAA
 PFOSA = 13C8 FOSA
 PFBA = 13C4 PFBA
 PFPeA = 13C5 PFPeA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-829238/9

Matrix: Solid

Analysis Batch: 829238

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			02/20/22 05:07	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			02/20/22 05:07	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			02/20/22 05:07	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			02/20/22 05:07	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			02/20/22 05:07	1
Acetone	6.0	U	6.0	5.7	ug/Kg			02/20/22 05:07	1
Benzene	1.0	U	1.0	0.26	ug/Kg			02/20/22 05:07	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			02/20/22 05:07	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			02/20/22 05:07	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			02/20/22 05:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			02/20/22 05:07	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			02/20/22 05:07	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			02/20/22 05:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			02/20/22 05:07	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			02/20/22 05:07	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			02/20/22 05:07	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			02/20/22 05:07	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			02/20/22 05:07	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			02/20/22 05:07	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			02/20/22 05:07	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			02/20/22 05:07	1
Toluene	1.0	U	1.0	0.23	ug/Kg			02/20/22 05:07	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			02/20/22 05:07	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/20/22 05:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			02/20/22 05:07	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			02/20/22 05:07	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			02/20/22 05:07	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/20/22 05:07	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			02/20/22 05:07	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			02/20/22 05:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 145		02/20/22 05:07	1
4-Bromofluorobenzene	82		70 - 139		02/20/22 05:07	1
Toluene-d8 (Surr)	105		80 - 120		02/20/22 05:07	1
Dibromofluoromethane (Surr)	108		48 - 150		02/20/22 05:07	1

Lab Sample ID: LCS 460-829238/4

Matrix: Solid

Analysis Batch: 829238

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	21.0		ug/Kg		105	77 - 132
1,1-Dichloroethane	20.0	20.3		ug/Kg		102	76 - 129
1,2-Dichloroethane	20.0	17.6		ug/Kg		88	70 - 132
1,1,1-Trichloroethane	20.0	20.6		ug/Kg		103	78 - 132
2-Butanone (MEK)	100	95.1		ug/Kg		95	75 - 120
Acetone	100	78.5		ug/Kg		78	63 - 131

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-829238/4

Matrix: Solid

Analysis Batch: 829238

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	19.3		ug/Kg		97	80 - 123
Carbon tetrachloride	20.0	20.1		ug/Kg		101	72 - 136
Chloroform	20.0	19.9		ug/Kg		100	79 - 126
Chlorobenzene	20.0	19.3		ug/Kg		96	80 - 120
cis-1,2-Dichloroethene	20.0	20.9		ug/Kg		105	80 - 123
Ethylbenzene	20.0	19.7		ug/Kg		98	80 - 120
Methylene Chloride	20.0	20.5		ug/Kg		102	76 - 127
m-Xylene & p-Xylene	20.0	19.6		ug/Kg		98	80 - 120
Methyl tert-butyl ether	20.0	18.8		ug/Kg		94	80 - 125
1,3-Dichlorobenzene	20.0	18.9		ug/Kg		94	80 - 120
1,4-Dichlorobenzene	20.0	18.6		ug/Kg		93	80 - 120
o-Xylene	20.0	19.3		ug/Kg		96	80 - 120
1,2-Dichlorobenzene	20.0	18.5		ug/Kg		93	80 - 120
1,4-Dioxane	400	404		ug/Kg		101	73 - 136
1,2,4-Trimethylbenzene	20.0	21.1		ug/Kg		106	79 - 120
Tetrachloroethene	20.0	16.7		ug/Kg		83	78 - 123
1,3,5-Trimethylbenzene	20.0	21.1		ug/Kg		106	79 - 120
Toluene	20.0	19.2		ug/Kg		96	80 - 120
N-Propylbenzene	20.0	21.1		ug/Kg		105	78 - 120
sec-Butylbenzene	20.0	22.4		ug/Kg		112	78 - 120
trans-1,2-Dichloroethene	20.0	20.6		ug/Kg		103	78 - 128
tert-Butylbenzene	20.0	20.8		ug/Kg		104	76 - 120
Trichloroethene	20.0	19.6		ug/Kg		98	79 - 120
n-Butylbenzene	20.0	22.1		ug/Kg		110	77 - 123
Vinyl chloride	20.0	21.0		ug/Kg		105	56 - 147
Xylenes, Total	40.0	38.9		ug/Kg		97	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 145
4-Bromofluorobenzene	80		70 - 139
Toluene-d8 (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	109		48 - 150

Lab Sample ID: LCSD 460-829238/5

Matrix: Solid

Analysis Batch: 829238

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	20.7		ug/Kg		103	77 - 132	2	30
1,1-Dichloroethane	20.0	20.4		ug/Kg		102	76 - 129	0	30
1,2-Dichloroethane	20.0	17.8		ug/Kg		89	70 - 132	1	30
1,1,1-Trichloroethane	20.0	19.9		ug/Kg		100	78 - 132	3	30
2-Butanone (MEK)	100	99.7		ug/Kg		100	75 - 120	5	30
Acetone	100	80.9		ug/Kg		81	63 - 131	3	30
Benzene	20.0	20.7		ug/Kg		104	80 - 123	7	30
Carbon tetrachloride	20.0	20.4		ug/Kg		102	72 - 136	2	30
Chloroform	20.0	20.1		ug/Kg		100	79 - 126	1	30
Chlorobenzene	20.0	20.0		ug/Kg		100	80 - 120	4	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-829238/5

Matrix: Solid

Analysis Batch: 829238

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	20.2		ug/Kg		101	80 - 123	4	30
Ethylbenzene	20.0	19.9		ug/Kg		100	80 - 120	1	30
Methylene Chloride	20.0	20.3		ug/Kg		102	76 - 127	1	30
m-Xylene & p-Xylene	20.0	20.0		ug/Kg		100	80 - 120	2	30
Methyl tert-butyl ether	20.0	18.9		ug/Kg		94	80 - 125	0	30
1,3-Dichlorobenzene	20.0	19.8		ug/Kg		99	80 - 120	5	30
1,4-Dichlorobenzene	20.0	18.7		ug/Kg		93	80 - 120	0	30
o-Xylene	20.0	19.5		ug/Kg		98	80 - 120	1	30
1,2-Dichlorobenzene	20.0	19.3		ug/Kg		96	80 - 120	4	30
1,4-Dioxane	400	407		ug/Kg		102	73 - 136	1	30
1,2,4-Trimethylbenzene	20.0	21.9		ug/Kg		110	79 - 120	4	30
Tetrachloroethene	20.0	17.5		ug/Kg		88	78 - 123	5	30
1,3,5-Trimethylbenzene	20.0	21.7		ug/Kg		109	79 - 120	3	30
Toluene	20.0	20.1		ug/Kg		100	80 - 120	5	30
N-Propylbenzene	20.0	21.8		ug/Kg		109	78 - 120	4	30
sec-Butylbenzene	20.0	23.6		ug/Kg		118	78 - 120	5	30
trans-1,2-Dichloroethene	20.0	20.2		ug/Kg		101	78 - 128	2	30
tert-Butylbenzene	20.0	21.6		ug/Kg		108	76 - 120	4	30
Trichloroethene	20.0	19.6		ug/Kg		98	79 - 120	0	30
n-Butylbenzene	20.0	22.7		ug/Kg		113	77 - 123	3	30
Vinyl chloride	20.0	21.3		ug/Kg		106	56 - 147	1	30
Xylenes, Total	40.0	39.5		ug/Kg		99	80 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		77 - 145
4-Bromofluorobenzene	84		70 - 139
Toluene-d8 (Surr)	112		80 - 120
Dibromofluoromethane (Surr)	109		48 - 150

Lab Sample ID: MB 460-829468/7

Matrix: Water

Analysis Batch: 829468

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/21/22 18:28	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/21/22 18:28	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/21/22 18:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/21/22 18:28	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/21/22 18:28	1
Acetone	5.0	U	5.0	4.4	ug/L			02/21/22 18:28	1
Benzene	1.0	U	1.0	0.20	ug/L			02/21/22 18:28	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/21/22 18:28	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/21/22 18:28	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/21/22 18:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/21/22 18:28	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/21/22 18:28	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/21/22 18:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/21/22 18:28	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-829468/7

Matrix: Water

Analysis Batch: 829468

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/21/22 18:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/21/22 18:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/21/22 18:28	1
1,4-Dioxane	50	U	50	28	ug/L			02/21/22 18:28	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/21/22 18:28	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/21/22 18:28	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/21/22 18:28	1
Toluene	1.0	U	1.0	0.38	ug/L			02/21/22 18:28	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/21/22 18:28	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/21/22 18:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/21/22 18:28	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/21/22 18:28	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/21/22 18:28	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/21/22 18:28	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/21/22 18:28	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/21/22 18:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		75 - 123		02/21/22 18:28	1
4-Bromofluorobenzene	94		76 - 120		02/21/22 18:28	1
Toluene-d8 (Surr)	103		80 - 120		02/21/22 18:28	1
Dibromofluoromethane (Surr)	104		77 - 124		02/21/22 18:28	1

Lab Sample ID: LCS 460-829468/3

Matrix: Water

Analysis Batch: 829468

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	22.2		ug/L		111	68 - 133
1,1-Dichloroethane	20.0	20.8		ug/L		104	73 - 130
1,2-Dichloroethane	20.0	22.0		ug/L		110	75 - 121
1,1,1-Trichloroethane	20.0	22.7		ug/L		113	68 - 128
2-Butanone (MEK)	100	112		ug/L		112	69 - 128
Acetone	100	92.1		ug/L		92	61 - 134
Benzene	20.0	21.8		ug/L		109	78 - 126
Carbon tetrachloride	20.0	22.3		ug/L		112	56 - 131
Chloroform	20.0	22.0		ug/L		110	78 - 125
Chlorobenzene	20.0	21.4		ug/L		107	80 - 119
cis-1,2-Dichloroethene	20.0	20.9		ug/L		104	78 - 121
Ethylbenzene	20.0	21.6		ug/L		108	78 - 120
Methylene Chloride	20.0	20.8		ug/L		104	74 - 127
m-Xylene & p-Xylene	20.0	21.5		ug/L		107	78 - 123
Methyl tert-butyl ether	20.0	21.9		ug/L		110	65 - 131
1,3-Dichlorobenzene	20.0	21.8		ug/L		109	80 - 121
1,4-Dichlorobenzene	20.0	21.6		ug/L		108	80 - 118
o-Xylene	20.0	21.4		ug/L		107	78 - 122
1,2-Dichlorobenzene	20.0	22.1		ug/L		111	79 - 122
1,4-Dioxane	400	368		ug/L		92	70 - 142

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-829468/3

Matrix: Water

Analysis Batch: 829468

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	23.3		ug/L		116	75 - 125
Tetrachloroethene	20.0	21.1		ug/L		105	70 - 127
1,3,5-Trimethylbenzene	20.0	23.0		ug/L		115	75 - 125
Toluene	20.0	21.8		ug/L		109	78 - 119
N-Propylbenzene	20.0	23.2		ug/L		116	74 - 129
sec-Butylbenzene	20.0	23.6		ug/L		118	73 - 129
trans-1,2-Dichloroethene	20.0	21.8		ug/L		109	74 - 126
tert-Butylbenzene	20.0	22.6		ug/L		113	72 - 124
Trichloroethene	20.0	21.3		ug/L		106	71 - 121
n-Butylbenzene	20.0	24.9		ug/L		124	69 - 135
Vinyl chloride	20.0	21.8		ug/L		109	61 - 144
Xylenes, Total	40.0	42.8		ug/L		107	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		75 - 123
4-Bromofluorobenzene	94		76 - 120
Toluene-d8 (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	101		77 - 124

Lab Sample ID: LCSD 460-829468/4

Matrix: Water

Analysis Batch: 829468

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	19.5		ug/L		97	68 - 133	13	30
1,1-Dichloroethane	20.0	19.4		ug/L		97	73 - 130	7	30
1,2-Dichloroethane	20.0	21.7		ug/L		108	75 - 121	1	30
1,1,1-Trichloroethane	20.0	20.2		ug/L		101	68 - 128	12	30
2-Butanone (MEK)	100	107		ug/L		107	69 - 128	5	30
Acetone	100	89.9		ug/L		90	61 - 134	2	30
Benzene	20.0	19.6		ug/L		98	78 - 126	11	30
Carbon tetrachloride	20.0	20.0		ug/L		100	56 - 131	11	30
Chloroform	20.0	20.8		ug/L		104	78 - 125	6	30
Chlorobenzene	20.0	19.8		ug/L		99	80 - 119	8	30
cis-1,2-Dichloroethene	20.0	19.6		ug/L		98	78 - 121	6	30
Ethylbenzene	20.0	19.3		ug/L		97	78 - 120	11	30
Methylene Chloride	20.0	20.1		ug/L		100	74 - 127	3	30
m-Xylene & p-Xylene	20.0	19.7		ug/L		99	78 - 123	8	30
Methyl tert-butyl ether	20.0	21.2		ug/L		106	65 - 131	3	30
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	80 - 121	8	30
1,4-Dichlorobenzene	20.0	19.9		ug/L		100	80 - 118	8	30
o-Xylene	20.0	20.0		ug/L		100	78 - 122	6	30
1,2-Dichlorobenzene	20.0	20.7		ug/L		104	79 - 122	7	30
1,4-Dioxane	400	404		ug/L		101	70 - 142	9	30
1,2,4-Trimethylbenzene	20.0	20.8		ug/L		104	75 - 125	11	30
Tetrachloroethene	20.0	18.1		ug/L		90	70 - 127	15	30
1,3,5-Trimethylbenzene	20.0	20.7		ug/L		104	75 - 125	10	30
Toluene	20.0	19.4		ug/L		97	78 - 119	12	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-829468/4

Matrix: Water

Analysis Batch: 829468

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Propylbenzene	20.0	20.4		ug/L		102	74 - 129	13	30
sec-Butylbenzene	20.0	20.5		ug/L		103	73 - 129	14	30
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	74 - 126	8	30
tert-Butylbenzene	20.0	19.9		ug/L		99	72 - 124	13	30
Trichloroethene	20.0	18.8		ug/L		94	71 - 121	12	30
n-Butylbenzene	20.0	21.9		ug/L		110	69 - 135	13	30
Vinyl chloride	20.0	19.5		ug/L		98	61 - 144	11	30
Xylenes, Total	40.0	39.8		ug/L		99	78 - 122	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		75 - 123
4-Bromofluorobenzene	96		76 - 120
Toluene-d8 (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	105		77 - 124

Lab Sample ID: MB 460-829551/7

Matrix: Water

Analysis Batch: 829551

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/22/22 08:23	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/22/22 08:23	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/22/22 08:23	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/22/22 08:23	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/22/22 08:23	1
Acetone	4.73	J	5.0	4.4	ug/L			02/22/22 08:23	1
Benzene	1.0	U	1.0	0.20	ug/L			02/22/22 08:23	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/22/22 08:23	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/22/22 08:23	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/22/22 08:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/22/22 08:23	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/22/22 08:23	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/22/22 08:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/22/22 08:23	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/22/22 08:23	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/22/22 08:23	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/22/22 08:23	1
1,4-Dioxane	50	U	50	28	ug/L			02/22/22 08:23	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/22/22 08:23	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/22/22 08:23	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/22/22 08:23	1
Toluene	1.0	U	1.0	0.38	ug/L			02/22/22 08:23	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/22/22 08:23	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/22/22 08:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/22/22 08:23	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/22/22 08:23	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/22/22 08:23	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/22/22 08:23	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-829551/7

Matrix: Water

Analysis Batch: 829551

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/22/22 08:23	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/22/22 08:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		75 - 123		02/22/22 08:23	1
4-Bromofluorobenzene	88		76 - 120		02/22/22 08:23	1
Toluene-d8 (Surr)	106		80 - 120		02/22/22 08:23	1
Dibromofluoromethane (Surr)	98		77 - 124		02/22/22 08:23	1

Lab Sample ID: LCS 460-829551/3

Matrix: Water

Analysis Batch: 829551

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	20.7		ug/L		103	68 - 133
1,1-Dichloroethane	20.0	21.0		ug/L		105	73 - 130
1,2-Dichloroethane	20.0	22.8		ug/L		114	75 - 121
1,1,1-Trichloroethane	20.0	21.5		ug/L		107	68 - 128
2-Butanone (MEK)	100	106		ug/L		106	69 - 128
Acetone	100	84.5		ug/L		85	61 - 134
Benzene	20.0	21.3		ug/L		107	78 - 126
Carbon tetrachloride	20.0	20.0		ug/L		100	56 - 131
Chloroform	20.0	21.3		ug/L		107	78 - 125
Chlorobenzene	20.0	20.6		ug/L		103	80 - 119
cis-1,2-Dichloroethene	20.0	20.3		ug/L		102	78 - 121
Ethylbenzene	20.0	20.4		ug/L		102	78 - 120
Methylene Chloride	20.0	20.8		ug/L		104	74 - 127
m-Xylene & p-Xylene	20.0	20.2		ug/L		101	78 - 123
Methyl tert-butyl ether	20.0	21.9		ug/L		109	65 - 131
1,3-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 121
1,4-Dichlorobenzene	20.0	20.9		ug/L		104	80 - 118
o-Xylene	20.0	20.1		ug/L		100	78 - 122
1,2-Dichlorobenzene	20.0	21.2		ug/L		106	79 - 122
1,4-Dioxane	400	454		ug/L		114	70 - 142
1,2,4-Trimethylbenzene	20.0	22.5		ug/L		113	75 - 125
Tetrachloroethene	20.0	19.2		ug/L		96	70 - 127
1,3,5-Trimethylbenzene	20.0	22.1		ug/L		111	75 - 125
Toluene	20.0	21.1		ug/L		105	78 - 119
N-Propylbenzene	20.0	23.1		ug/L		116	74 - 129
sec-Butylbenzene	20.0	22.7		ug/L		113	73 - 129
trans-1,2-Dichloroethene	20.0	20.5		ug/L		103	74 - 126
tert-Butylbenzene	20.0	21.4		ug/L		107	72 - 124
Trichloroethene	20.0	20.0		ug/L		100	71 - 121
n-Butylbenzene	20.0	23.6		ug/L		118	69 - 135
Vinyl chloride	20.0	20.5		ug/L		103	61 - 144
Xylenes, Total	40.0	40.3		ug/L		101	78 - 122

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-829551/3

Matrix: Water

Analysis Batch: 829551

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	113		75 - 123
4-Bromofluorobenzene	90		76 - 120
Toluene-d8 (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	99		77 - 124

Lab Sample ID: LCSD 460-829551/4

Matrix: Water

Analysis Batch: 829551

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	19.7		ug/L		99	68 - 133	5	30
1,1-Dichloroethane	20.0	20.3		ug/L		101	73 - 130	3	30
1,2-Dichloroethane	20.0	21.6		ug/L		108	75 - 121	6	30
1,1,1-Trichloroethane	20.0	20.6		ug/L		103	68 - 128	4	30
2-Butanone (MEK)	100	105		ug/L		105	69 - 128	1	30
Acetone	100	83.5		ug/L		83	61 - 134	1	30
Benzene	20.0	21.0		ug/L		105	78 - 126	2	30
Carbon tetrachloride	20.0	19.2		ug/L		96	56 - 131	4	30
Chloroform	20.0	20.7		ug/L		103	78 - 125	3	30
Chlorobenzene	20.0	20.1		ug/L		101	80 - 119	2	30
cis-1,2-Dichloroethene	20.0	19.7		ug/L		98	78 - 121	3	30
Ethylbenzene	20.0	19.9		ug/L		99	78 - 120	3	30
Methylene Chloride	20.0	20.2		ug/L		101	74 - 127	3	30
m-Xylene & p-Xylene	20.0	19.6		ug/L		98	78 - 123	3	30
Methyl tert-butyl ether	20.0	20.9		ug/L		105	65 - 131	4	30
1,3-Dichlorobenzene	20.0	20.8		ug/L		104	80 - 121	0	30
1,4-Dichlorobenzene	20.0	20.9		ug/L		104	80 - 118	0	30
o-Xylene	20.0	19.7		ug/L		99	78 - 122	2	30
1,2-Dichlorobenzene	20.0	20.9		ug/L		104	79 - 122	1	30
1,4-Dioxane	400	469		ug/L		117	70 - 142	3	30
1,2,4-Trimethylbenzene	20.0	22.3		ug/L		112	75 - 125	1	30
Tetrachloroethene	20.0	19.0		ug/L		95	70 - 127	1	30
1,3,5-Trimethylbenzene	20.0	22.0		ug/L		110	75 - 125	0	30
Toluene	20.0	20.7		ug/L		103	78 - 119	2	30
N-Propylbenzene	20.0	22.9		ug/L		114	74 - 129	1	30
sec-Butylbenzene	20.0	22.4		ug/L		112	73 - 129	1	30
trans-1,2-Dichloroethene	20.0	19.7		ug/L		99	74 - 126	4	30
tert-Butylbenzene	20.0	21.4		ug/L		107	72 - 124	0	30
Trichloroethene	20.0	19.2		ug/L		96	71 - 121	4	30
n-Butylbenzene	20.0	23.7		ug/L		118	69 - 135	0	30
Vinyl chloride	20.0	19.9		ug/L		99	61 - 144	3	30
Xylenes, Total	40.0	39.3		ug/L		98	78 - 122	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		75 - 123
4-Bromofluorobenzene	89		76 - 120
Toluene-d8 (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	98		77 - 124

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-828963/1-A

Matrix: Water

Analysis Batch: 829088

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828963

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.010	U	0.010	0.00029	mg/L		02/18/22 07:45	02/18/22 19:54	1
2-Methylphenol	0.010	U	0.010	0.00067	mg/L		02/18/22 07:45	02/18/22 19:54	1
3 & 4 Methylphenol	0.010	U	0.010	0.00064	mg/L		02/18/22 07:45	02/18/22 19:54	1
Pentachlorophenol	0.020	U	0.020	0.0014	mg/L		02/18/22 07:45	02/18/22 19:54	1
Naphthalene	0.0020	U	0.0020	0.00054	mg/L		02/18/22 07:45	02/18/22 19:54	1
Acenaphthylene	0.010	U	0.010	0.00082	mg/L		02/18/22 07:45	02/18/22 19:54	1
Acenaphthene	0.010	U	0.010	0.0011	mg/L		02/18/22 07:45	02/18/22 19:54	1
Dibenzofuran	0.010	U	0.010	0.0011	mg/L		02/18/22 07:45	02/18/22 19:54	1
Fluorene	0.010	U	0.010	0.00091	mg/L		02/18/22 07:45	02/18/22 19:54	1
Hexachlorobenzene	0.0010	U	0.0010	0.00040	mg/L		02/18/22 07:45	02/18/22 19:54	1
Phenanthrene	0.010	U	0.010	0.0013	mg/L		02/18/22 07:45	02/18/22 19:54	1
Anthracene	0.010	U	0.010	0.0013	mg/L		02/18/22 07:45	02/18/22 19:54	1
Fluoranthene	0.010	U	0.010	0.00084	mg/L		02/18/22 07:45	02/18/22 19:54	1
Pyrene	0.010	U	0.010	0.0016	mg/L		02/18/22 07:45	02/18/22 19:54	1
Benzo[a]anthracene	0.0010	U	0.0010	0.00059	mg/L		02/18/22 07:45	02/18/22 19:54	1
Chrysene	0.0020	U	0.0020	0.00091	mg/L		02/18/22 07:45	02/18/22 19:54	1
Benzo[b]fluoranthene	0.0020	U	0.0020	0.00068	mg/L		02/18/22 07:45	02/18/22 19:54	1
Benzo[k]fluoranthene	0.0010	U	0.0010	0.00067	mg/L		02/18/22 07:45	02/18/22 19:54	1
Benzo[a]pyrene	0.0010	U	0.0010	0.00041	mg/L		02/18/22 07:45	02/18/22 19:54	1
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0020	0.00094	mg/L		02/18/22 07:45	02/18/22 19:54	1
Dibenz(a,h)anthracene	0.0010	U	0.0010	0.00072	mg/L		02/18/22 07:45	02/18/22 19:54	1
Benzo[g,h,i]perylene	0.010	U	0.010	0.00070	mg/L		02/18/22 07:45	02/18/22 19:54	1
1,4-Dioxane	10	U	10	1.6	ug/L		02/18/22 07:45	02/18/22 19:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		46 - 137	02/18/22 07:45	02/18/22 19:54	1
Phenol-d5 (Surr)	17		10 - 50	02/18/22 07:45	02/18/22 19:54	1
Terphenyl-d14 (Surr)	82		39 - 150	02/18/22 07:45	02/18/22 19:54	1
2,4,6-Tribromophenol (Surr)	85		33 - 150	02/18/22 07:45	02/18/22 19:54	1
2-Fluorophenol (Surr)	27		18 - 72	02/18/22 07:45	02/18/22 19:54	1
2-Fluorobiphenyl	70		42 - 127	02/18/22 07:45	02/18/22 19:54	1

Lab Sample ID: LCS 460-828963/2-A

Matrix: Water

Analysis Batch: 829088

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.0800	0.0236		mg/L		29	20 - 50
2-Methylphenol	0.0800	0.0419		mg/L		52	48 - 88
3 & 4 Methylphenol	0.0800	0.0359		mg/L		45	43 - 78
Pentachlorophenol	0.160	0.0952		mg/L		60	54 - 131
Naphthalene	0.0800	0.0549		mg/L		69	58 - 105
Acenaphthylene	0.0800	0.0548		mg/L		68	64 - 109
Acenaphthene	0.0800	0.0582		mg/L		73	60 - 110
Dibenzofuran	0.0800	0.0595		mg/L		74	66 - 109
Fluorene	0.0800	0.0617		mg/L		77	65 - 111
Hexachlorobenzene	0.0800	0.0641		mg/L		80	61 - 117
Phenanthrene	0.0800	0.0592		mg/L		74	65 - 108

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-828963/2-A

Matrix: Water

Analysis Batch: 829088

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	0.0800	0.0592		mg/L		74	65 - 109
Fluoranthene	0.0800	0.0628		mg/L		78	65 - 113
Pyrene	0.0800	0.0613		mg/L		77	54 - 114
Benzo[a]anthracene	0.0800	0.0586		mg/L		73	62 - 106
Chrysene	0.0800	0.0597		mg/L		75	63 - 108
Benzo[b]fluoranthene	0.0800	0.0627		mg/L		78	66 - 125
Benzo[k]fluoranthene	0.0800	0.0694		mg/L		87	64 - 125
Benzo[a]pyrene	0.0800	0.0581		mg/L		73	66 - 127
Indeno[1,2,3-cd]pyrene	0.0800	0.0593		mg/L		74	54 - 150
Dibenz(a,h)anthracene	0.0800	0.0620		mg/L		78	55 - 150
Benzo[g,h,i]perylene	0.0800	0.0579		mg/L		72	49 - 149
1,4-Dioxane	80.0	28.9		ug/L		36	26 - 69

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	66		46 - 137
Phenol-d5 (Surr)	25		10 - 50
Terphenyl-d14 (Surr)	84		39 - 150
2,4,6-Tribromophenol (Surr)	87		33 - 150
2-Fluorophenol (Surr)	33		18 - 72
2-Fluorobiphenyl	69		42 - 127

Lab Sample ID: LCSD 460-828963/3-A

Matrix: Water

Analysis Batch: 829088

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828963

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.0800	0.0231		mg/L		29	20 - 50	2	30
2-Methylphenol	0.0800	0.0418		mg/L		52	48 - 88	0	30
3 & 4 Methylphenol	0.0800	0.0354		mg/L		44	43 - 78	2	30
Pentachlorophenol	0.160	0.0966		mg/L		60	54 - 131	1	30
Naphthalene	0.0800	0.0551		mg/L		69	58 - 105	0	30
Acenaphthylene	0.0800	0.0555		mg/L		69	64 - 109	1	30
Acenaphthene	0.0800	0.0585		mg/L		73	60 - 110	0	30
Dibenzofuran	0.0800	0.0603		mg/L		75	66 - 109	1	30
Fluorene	0.0800	0.0615		mg/L		77	65 - 111	0	30
Hexachlorobenzene	0.0800	0.0642		mg/L		80	61 - 117	0	30
Phenanthrene	0.0800	0.0593		mg/L		74	65 - 108	0	30
Anthracene	0.0800	0.0592		mg/L		74	65 - 109	0	30
Fluoranthene	0.0800	0.0619		mg/L		77	65 - 113	1	30
Pyrene	0.0800	0.0610		mg/L		76	54 - 114	0	30
Benzo[a]anthracene	0.0800	0.0586		mg/L		73	62 - 106	0	30
Chrysene	0.0800	0.0608		mg/L		76	63 - 108	2	30
Benzo[b]fluoranthene	0.0800	0.0612		mg/L		77	66 - 125	2	30
Benzo[k]fluoranthene	0.0800	0.0657		mg/L		82	64 - 125	5	30
Benzo[a]pyrene	0.0800	0.0578		mg/L		72	66 - 127	1	30
Indeno[1,2,3-cd]pyrene	0.0800	0.0589		mg/L		74	54 - 150	1	30
Dibenz(a,h)anthracene	0.0800	0.0623		mg/L		78	55 - 150	0	30
Benzo[g,h,i]perylene	0.0800	0.0584		mg/L		73	49 - 149	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-828963/3-A

Matrix: Water

Analysis Batch: 829088

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828963

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	80.0	30.0		ug/L		37	26 - 69	4	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Nitrobenzene-d5 (Surr)	67		46 - 137						
Phenol-d5 (Surr)	24		10 - 50						
Terphenyl-d14 (Surr)	83		39 - 150						
2,4,6-Tribromophenol (Surr)	87		33 - 150						
2-Fluorophenol (Surr)	34		18 - 72						
2-Fluorobiphenyl	70		42 - 127						

Lab Sample ID: MB 460-829002/1-A

Matrix: Solid

Analysis Batch: 829098

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829002

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
2-Methylphenol	330	U	330	12	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Pentachlorophenol	270	U	270	68	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Naphthalene	330	U	330	5.7	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Acenaphthylene	330	U	330	3.3	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Acenaphthene	330	U	330	9.4	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Dibenzofuran	330	U	330	4.6	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Fluorene	330	U	330	4.5	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Hexachlorobenzene	33	U	33	16	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Phenanthrene	330	U	330	5.8	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Anthracene	330	U	330	10	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Fluoranthene	330	U	330	12	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Pyrene	330	U	330	8.2	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Chrysene	330	U	330	5.6	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
1,4-Dioxane	33	U	33	29	ug/Kg		02/18/22 10:22	02/18/22 20:27	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	88		11 - 104	02/18/22 10:22	02/18/22 20:27	1			
Phenol-d5 (Surr)	88		15 - 100	02/18/22 10:22	02/18/22 20:27	1			
Terphenyl-d14 (Surr)	83		12 - 126	02/18/22 10:22	02/18/22 20:27	1			
2,4,6-Tribromophenol (Surr)	91		10 - 123	02/18/22 10:22	02/18/22 20:27	1			
2-Fluorophenol (Surr)	88		10 - 105	02/18/22 10:22	02/18/22 20:27	1			
2-Fluorobiphenyl	84		14 - 103	02/18/22 10:22	02/18/22 20:27	1			

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-829002/2-A

Matrix: Solid

Analysis Batch: 829098

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829002

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	3330	2640		ug/Kg		79	63 - 110
2-Methylphenol	3330	2610		ug/Kg		78	63 - 108
3 & 4 Methylphenol	3330	2580		ug/Kg		77	61 - 108
Pentachlorophenol	6670	4960		ug/Kg		74	44 - 126
Naphthalene	3330	2490		ug/Kg		75	63 - 106
Acenaphthylene	3330	2460		ug/Kg		74	64 - 108
Acenaphthene	3330	2520		ug/Kg		76	53 - 110
Dibenzofuran	3330	2620		ug/Kg		79	65 - 108
Fluorene	3330	2680		ug/Kg		80	65 - 109
Hexachlorobenzene	3330	2660		ug/Kg		80	61 - 113
Phenanthrene	3330	2550		ug/Kg		76	66 - 112
Anthracene	3330	2560		ug/Kg		77	67 - 114
Fluoranthene	3330	2580		ug/Kg		77	61 - 106
Pyrene	3330	2690		ug/Kg		81	61 - 111
Benzo[a]anthracene	3330	2600		ug/Kg		78	67 - 115
Chrysene	3330	2560		ug/Kg		77	71 - 122
Benzo[b]fluoranthene	3330	2770		ug/Kg		83	70 - 125
Benzo[k]fluoranthene	3330	2670		ug/Kg		80	67 - 115
Benzo[a]pyrene	3330	2480		ug/Kg		74	73 - 123
Indeno[1,2,3-cd]pyrene	3330	2930		ug/Kg		88	62 - 121
Dibenz(a,h)anthracene	3330	2820		ug/Kg		85	66 - 119
Benzo[g,h,i]perylene	3330	2670		ug/Kg		80	61 - 113
1,4-Dioxane	3330	2260		ug/Kg		68	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	70		11 - 104
Phenol-d5 (Surr)	73		15 - 100
Terphenyl-d14 (Surr)	77		12 - 126
2,4,6-Tribromophenol (Surr)	81		10 - 123
2-Fluorophenol (Surr)	70		10 - 105
2-Fluorobiphenyl	70		14 - 103

Lab Sample ID: LCSD 460-829002/3-A

Matrix: Solid

Analysis Batch: 829098

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 829002

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	2630		ug/Kg		79	63 - 110	0	30
2-Methylphenol	3330	2610		ug/Kg		78	63 - 108	0	30
3 & 4 Methylphenol	3330	2590		ug/Kg		78	61 - 108	0	30
Pentachlorophenol	6670	5040		ug/Kg		76	44 - 126	1	30
Naphthalene	3330	2490		ug/Kg		75	63 - 106	0	30
Acenaphthylene	3330	2420		ug/Kg		73	64 - 108	2	30
Acenaphthene	3330	2480		ug/Kg		74	53 - 110	2	30
Dibenzofuran	3330	2610		ug/Kg		78	65 - 108	1	30
Fluorene	3330	2650		ug/Kg		79	65 - 109	1	30
Hexachlorobenzene	3330	2680		ug/Kg		80	61 - 113	0	30
Phenanthrene	3330	2610		ug/Kg		78	66 - 112	2	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-829002/3-A

Matrix: Solid

Analysis Batch: 829098

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 829002

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	3330	2590		ug/Kg		78	67 - 114	1	30
Fluoranthene	3330	2550		ug/Kg		77	61 - 106	1	30
Pyrene	3330	2650		ug/Kg		79	61 - 111	2	30
Benzo[a]anthracene	3330	2630		ug/Kg		79	67 - 115	1	30
Chrysene	3330	2540		ug/Kg		76	71 - 122	1	30
Benzo[b]fluoranthene	3330	2810		ug/Kg		84	70 - 125	1	30
Benzo[k]fluoranthene	3330	2660		ug/Kg		80	67 - 115	0	30
Benzo[a]pyrene	3330	2490		ug/Kg		75	73 - 123	1	30
Indeno[1,2,3-cd]pyrene	3330	2820		ug/Kg		85	62 - 121	4	30
Dibenz(a,h)anthracene	3330	2840		ug/Kg		85	66 - 119	1	30
Benzo[g,h,i]perylene	3330	2690		ug/Kg		81	61 - 113	1	30
1,4-Dioxane	3330	2270		ug/Kg		68	31 - 81	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	71		11 - 104
Phenol-d5 (Surr)	73		15 - 100
Terphenyl-d14 (Surr)	77		12 - 126
2,4,6-Tribromophenol (Surr)	80		10 - 123
2-Fluorophenol (Surr)	70		10 - 105
2-Fluorobiphenyl	71		14 - 103

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 460-828785/1-A

Matrix: Water

Analysis Batch: 828901

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.072	ug/L		02/17/22 10:00	02/18/22 00:00	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	26		10 - 150				02/17/22 10:00	02/18/22 00:00	1

Lab Sample ID: LCS 460-828785/2-A

Matrix: Water

Analysis Batch: 828901

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	1.60	1.69		ug/L		106	50 - 142
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8	23		10 - 150				

Lab Sample ID: LCSD 460-828785/3-A

Matrix: Water

Analysis Batch: 828901

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828785

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	1.60	1.76		ug/L		110	50 - 142	4	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Isotope Dilution	LCSD LCSD		Limits
	%Recovery	Qualifier	
1,4-Dioxane-d8	24		10 - 150

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-828782/1-A

Matrix: Water

Analysis Batch: 828808

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828782

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 04:44	1
Aldrin	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 04:44	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		02/17/22 09:56	02/18/22 04:44	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		02/17/22 09:56	02/18/22 04:44	1
beta-BHC	0.020	U	0.020	0.015	ug/L		02/17/22 09:56	02/18/22 04:44	1
beta-BHC	0.020	U	0.020	0.015	ug/L		02/17/22 09:56	02/18/22 04:44	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		02/17/22 09:56	02/18/22 04:44	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		02/17/22 09:56	02/18/22 04:44	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		02/17/22 09:56	02/18/22 04:44	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		02/17/22 09:56	02/18/22 04:44	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 04:44	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 04:44	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 04:44	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 04:44	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		02/17/22 09:56	02/18/22 04:44	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		02/17/22 09:56	02/18/22 04:44	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 04:44	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endrin	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endrin	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		02/17/22 09:56	02/18/22 04:44	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		02/17/22 09:56	02/18/22 04:44	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		02/17/22 09:56	02/18/22 04:44	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		02/17/22 09:56	02/18/22 04:44	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 04:44	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		02/17/22 09:56	02/18/22 04:44	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		02/17/22 09:56	02/18/22 04:44	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		02/17/22 09:56	02/18/22 04:44	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 04:44	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		02/17/22 09:56	02/18/22 04:44	1
Toxaphene	0.50	U	0.50	0.11	ug/L		02/17/22 09:56	02/18/22 04:44	1
Toxaphene	0.50	U	0.50	0.11	ug/L		02/17/22 09:56	02/18/22 04:44	1
cis-Chlordane	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 04:44	1
cis-Chlordane	0.020	U	0.020	0.0020	ug/L		02/17/22 09:56	02/18/22 04:44	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		10 - 150	02/17/22 09:56	02/18/22 04:44	1
Tetrachloro-m-xylene	74		10 - 150	02/17/22 09:56	02/18/22 04:44	1
DCB Decachlorobiphenyl	77		10 - 150	02/17/22 09:56	02/18/22 04:44	1
DCB Decachlorobiphenyl	85		10 - 150	02/17/22 09:56	02/18/22 04:44	1

Lab Sample ID: LCS 460-828782/2-A
Matrix: Water
Analysis Batch: 828808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 828782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aldrin	0.800	0.734		ug/L		92	53 - 142
Aldrin	0.800	0.733		ug/L		92	53 - 142
alpha-BHC	0.800	0.745		ug/L		93	65 - 134
alpha-BHC	0.800	0.759		ug/L		95	65 - 134
beta-BHC	0.800	0.759		ug/L		95	72 - 141
beta-BHC	0.800	0.746		ug/L		93	72 - 141
4,4'-DDD	0.800	0.729		ug/L		91	67 - 135
4,4'-DDD	0.800	0.716		ug/L		89	67 - 135
4,4'-DDE	0.800	0.738		ug/L		92	65 - 135
4,4'-DDE	0.800	0.754		ug/L		94	65 - 135
4,4'-DDT	0.800	0.748		ug/L		93	62 - 136
4,4'-DDT	0.800	0.745		ug/L		93	62 - 136
delta-BHC	0.800	0.587		ug/L		73	41 - 147
delta-BHC	0.800	0.610		ug/L		76	41 - 147
Dieldrin	0.800	0.726		ug/L		91	66 - 133
Dieldrin	0.800	0.716		ug/L		90	66 - 133
Endosulfan I	0.800	0.671		ug/L		84	64 - 132
Endosulfan I	0.800	0.710		ug/L		89	64 - 132
Endosulfan II	0.800	0.702		ug/L		88	67 - 134
Endosulfan II	0.800	0.717		ug/L		90	67 - 134
Endosulfan sulfate	0.800	0.695		ug/L		87	47 - 158
Endosulfan sulfate	0.800	0.690		ug/L		86	47 - 158
Endrin	0.800	0.712		ug/L		89	67 - 132
Endrin	0.800	0.713		ug/L		89	67 - 132
Endrin aldehyde	0.800	0.667		ug/L		83	54 - 132
Endrin aldehyde	0.800	0.659		ug/L		82	54 - 132
Endrin ketone	0.800	0.706		ug/L		88	68 - 132
Endrin ketone	0.800	0.677		ug/L		85	68 - 132
gamma-BHC (Lindane)	0.800	0.750		ug/L		94	65 - 134
gamma-BHC (Lindane)	0.800	0.753		ug/L		94	65 - 134
Heptachlor	0.800	0.709		ug/L		89	63 - 128
Heptachlor	0.800	0.707		ug/L		88	63 - 128
Heptachlor epoxide	0.800	0.700		ug/L		88	66 - 128
Heptachlor epoxide	0.800	0.715		ug/L		89	66 - 128
Methoxychlor	0.800	0.711		ug/L		89	42 - 151
Methoxychlor	0.800	0.691		ug/L		86	42 - 151
cis-Chlordane	0.800	0.703		ug/L		88	64 - 130
cis-Chlordane	0.800	0.715		ug/L		89	64 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	75		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-828782/2-A

Matrix: Water

Analysis Batch: 828808

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828782

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	77		10 - 150
DCB Decachlorobiphenyl	71		10 - 150
DCB Decachlorobiphenyl	78		10 - 150

Lab Sample ID: LCSD 460-828782/3-A

Matrix: Water

Analysis Batch: 828808

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828782

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	0.800	0.698		ug/L		87	53 - 142	5	30
Aldrin	0.800	0.687		ug/L		86	53 - 142	6	30
alpha-BHC	0.800	0.703		ug/L		88	65 - 134	6	30
alpha-BHC	0.800	0.714		ug/L		89	65 - 134	6	30
beta-BHC	0.800	0.719		ug/L		90	72 - 141	5	30
beta-BHC	0.800	0.699		ug/L		87	72 - 141	7	30
4,4'-DDD	0.800	0.690		ug/L		86	67 - 135	6	30
4,4'-DDD	0.800	0.669		ug/L		84	67 - 135	7	30
4,4'-DDE	0.800	0.702		ug/L		88	65 - 135	5	30
4,4'-DDE	0.800	0.703		ug/L		88	65 - 135	7	30
4,4'-DDT	0.800	0.710		ug/L		89	62 - 136	5	30
4,4'-DDT	0.800	0.709		ug/L		89	62 - 136	5	30
delta-BHC	0.800	0.502		ug/L		63	41 - 147	16	30
delta-BHC	0.800	0.570		ug/L		71	41 - 147	7	30
Dieldrin	0.800	0.690		ug/L		86	66 - 133	5	30
Dieldrin	0.800	0.674		ug/L		84	66 - 133	6	30
Endosulfan I	0.800	0.591		ug/L		74	64 - 132	13	30
Endosulfan I	0.800	0.671		ug/L		84	64 - 132	6	30
Endosulfan II	0.800	0.669		ug/L		84	67 - 134	5	30
Endosulfan II	0.800	0.675		ug/L		84	67 - 134	6	30
Endosulfan sulfate	0.800	0.659		ug/L		82	47 - 158	5	30
Endosulfan sulfate	0.800	0.652		ug/L		81	47 - 158	6	30
Endrin	0.800	0.677		ug/L		85	67 - 132	5	30
Endrin	0.800	0.675		ug/L		84	67 - 132	5	30
Endrin aldehyde	0.800	0.644		ug/L		80	54 - 132	4	30
Endrin aldehyde	0.800	0.639		ug/L		80	54 - 132	3	30
Endrin ketone	0.800	0.659		ug/L		82	68 - 132	7	30
Endrin ketone	0.800	0.642		ug/L		80	68 - 132	5	30
gamma-BHC (Lindane)	0.800	0.703		ug/L		88	65 - 134	6	30
gamma-BHC (Lindane)	0.800	0.696		ug/L		87	65 - 134	8	30
Heptachlor	0.800	0.677		ug/L		85	63 - 128	5	30
Heptachlor	0.800	0.631		ug/L		79	63 - 128	11	30
Heptachlor epoxide	0.800	0.668		ug/L		84	66 - 128	5	30
Heptachlor epoxide	0.800	0.676		ug/L		84	66 - 128	6	30
Methoxychlor	0.800	0.681		ug/L		85	42 - 151	4	30
Methoxychlor	0.800	0.654		ug/L		82	42 - 151	5	30
cis-Chlordane	0.800	0.670		ug/L		84	64 - 130	5	30
cis-Chlordane	0.800	0.676		ug/L		84	64 - 130	6	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-828782/3-A

Matrix: Water

Analysis Batch: 828808

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828782

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	72		10 - 150
Tetrachloro-m-xylene	73		10 - 150
DCB Decachlorobiphenyl	69		10 - 150
DCB Decachlorobiphenyl	72		10 - 150

Lab Sample ID: MB 460-828868/1-A

Matrix: Solid

Analysis Batch: 828804

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/17/22 16:58	02/18/22 04:40	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-828868/1-A

Matrix: Solid

Analysis Batch: 828804

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	67	U	67	24	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
Toxaphene	67	U	67	24	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/17/22 16:58	02/18/22 04:40	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/17/22 16:58	02/18/22 04:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		10 - 133	02/17/22 16:58	02/18/22 04:40	1
Tetrachloro-m-xylene	78		10 - 133	02/17/22 16:58	02/18/22 04:40	1
DCB Decachlorobiphenyl	88		10 - 150	02/17/22 16:58	02/18/22 04:40	1
DCB Decachlorobiphenyl	84		10 - 150	02/17/22 16:58	02/18/22 04:40	1

Lab Sample ID: LCS 460-828868/2-A

Matrix: Solid

Analysis Batch: 828804

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	133	134		ug/Kg		101	74 - 140
Aldrin	133	131		ug/Kg		98	74 - 140
alpha-BHC	133	136		ug/Kg		102	72 - 142
alpha-BHC	133	134		ug/Kg		101	72 - 142
beta-BHC	133	135		ug/Kg		102	65 - 137
beta-BHC	133	140		ug/Kg		105	65 - 137
4,4'-DDD	133	136		ug/Kg		102	70 - 140
4,4'-DDD	133	131		ug/Kg		98	70 - 140
4,4'-DDE	133	135		ug/Kg		101	71 - 137
4,4'-DDE	133	124		ug/Kg		93	71 - 137
4,4'-DDT	133	139		ug/Kg		104	63 - 131
4,4'-DDT	133	127		ug/Kg		95	63 - 131
delta-BHC	133	130		ug/Kg		97	70 - 143
delta-BHC	133	140		ug/Kg		105	70 - 143
Dieldrin	133	138		ug/Kg		104	70 - 135
Dieldrin	133	132		ug/Kg		99	70 - 135
Endosulfan I	133	137		ug/Kg		103	68 - 135
Endosulfan I	133	131		ug/Kg		98	68 - 135
Endosulfan II	133	141		ug/Kg		106	64 - 130
Endosulfan II	133	138		ug/Kg		104	64 - 130
Endosulfan sulfate	133	137		ug/Kg		103	66 - 143
Endosulfan sulfate	133	133		ug/Kg		100	66 - 143
Endrin	133	127		ug/Kg		95	68 - 136
Endrin	133	127		ug/Kg		95	68 - 136
Endrin aldehyde	133	135		ug/Kg		101	68 - 132
Endrin aldehyde	133	133		ug/Kg		100	68 - 132
Endrin ketone	133	146		ug/Kg		109	60 - 150
Endrin ketone	133	134		ug/Kg		100	60 - 150
gamma-BHC (Lindane)	133	139		ug/Kg		104	70 - 134
gamma-BHC (Lindane)	133	137		ug/Kg		103	70 - 134
Heptachlor	133	140		ug/Kg		105	69 - 134
Heptachlor	133	129		ug/Kg		97	69 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-828868/2-A

Matrix: Solid

Analysis Batch: 828804

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Heptachlor epoxide	133	136		ug/Kg		102	70 - 135
Heptachlor epoxide	133	130		ug/Kg		98	70 - 135
Methoxychlor	133	131		ug/Kg		98	57 - 135
Methoxychlor	133	118		ug/Kg		89	57 - 135
cis-Chlordane	133	136		ug/Kg		102	70 - 136
cis-Chlordane	133	129		ug/Kg		97	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	83		10 - 133
Tetrachloro-m-xylene	79		10 - 133
DCB Decachlorobiphenyl	88		10 - 150
DCB Decachlorobiphenyl	82		10 - 150

Lab Sample ID: LCSD 460-828868/3-A

Matrix: Solid

Analysis Batch: 828804

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828868

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aldrin	133	131		ug/Kg		98	74 - 140	3	30
Aldrin	133	126		ug/Kg		94	74 - 140	4	30
alpha-BHC	133	132		ug/Kg		99	72 - 142	3	30
alpha-BHC	133	129		ug/Kg		97	72 - 142	4	30
beta-BHC	133	131		ug/Kg		98	65 - 137	3	30
beta-BHC	133	134		ug/Kg		101	65 - 137	4	30
4,4'-DDD	133	133		ug/Kg		100	70 - 140	2	30
4,4'-DDD	133	126		ug/Kg		94	70 - 140	4	30
4,4'-DDE	133	132		ug/Kg		99	71 - 137	2	30
4,4'-DDE	133	118		ug/Kg		89	71 - 137	5	30
4,4'-DDT	133	136		ug/Kg		102	63 - 131	2	30
4,4'-DDT	133	122		ug/Kg		92	63 - 131	4	30
delta-BHC	133	126		ug/Kg		95	70 - 143	3	30
delta-BHC	133	135		ug/Kg		101	70 - 143	4	30
Dieldrin	133	136		ug/Kg		102	70 - 135	2	30
Dieldrin	133	127		ug/Kg		95	70 - 135	4	30
Endosulfan I	133	134		ug/Kg		101	68 - 135	2	30
Endosulfan I	133	126		ug/Kg		94	68 - 135	4	30
Endosulfan II	133	139		ug/Kg		104	64 - 130	2	30
Endosulfan II	133	134		ug/Kg		100	64 - 130	3	30
Endosulfan sulfate	133	135		ug/Kg		101	66 - 143	1	30
Endosulfan sulfate	133	129		ug/Kg		97	66 - 143	3	30
Endrin	133	125		ug/Kg		94	68 - 136	2	30
Endrin	133	122		ug/Kg		92	68 - 136	4	30
Endrin aldehyde	133	133		ug/Kg		100	68 - 132	1	30
Endrin aldehyde	133	130		ug/Kg		97	68 - 132	2	30
Endrin ketone	133	144		ug/Kg		108	60 - 150	1	30
Endrin ketone	133	130		ug/Kg		98	60 - 150	3	30
gamma-BHC (Lindane)	133	134		ug/Kg		101	70 - 134	3	30
gamma-BHC (Lindane)	133	131		ug/Kg		98	70 - 134	4	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-828868/3-A

Matrix: Solid

Analysis Batch: 828804

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828868

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Heptachlor	133	136		ug/Kg		102	69 - 134	3	30
Heptachlor	133	124		ug/Kg		93	69 - 134	4	30
Heptachlor epoxide	133	133		ug/Kg		100	70 - 135	2	30
Heptachlor epoxide	133	124		ug/Kg		93	70 - 135	5	30
Methoxychlor	133	129		ug/Kg		96	57 - 135	2	30
Methoxychlor	133	117		ug/Kg		88	57 - 135	1	30
cis-Chlordane	133	133		ug/Kg		100	70 - 136	2	30
cis-Chlordane	133	123		ug/Kg		93	70 - 136	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	80		10 - 133
Tetrachloro-m-xylene	76		10 - 133
DCB Decachlorobiphenyl	88		10 - 150
DCB Decachlorobiphenyl	81		10 - 150

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-828789/1-A

Matrix: Water

Analysis Batch: 828964

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828789

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1016	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 10:55	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		02/17/22 10:02	02/18/22 10:55	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		02/17/22 10:02	02/18/22 10:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	115		10 - 138	02/17/22 10:02	02/18/22 10:55	1
DCB Decachlorobiphenyl	112		10 - 138	02/17/22 10:02	02/18/22 10:55	1
Tetrachloro-m-xylene	80		10 - 150	02/17/22 10:02	02/18/22 10:55	1
Tetrachloro-m-xylene	106		10 - 150	02/17/22 10:02	02/18/22 10:55	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-828789/2-A

Matrix: Water

Analysis Batch: 828964

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	4.00	3.51		ug/L		88	66 - 141
Aroclor 1016	4.00	4.26		ug/L		106	66 - 141
Aroclor 1260	4.00	4.06		ug/L		102	66 - 142
Aroclor 1260	4.00	4.51		ug/L		113	66 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	122		10 - 138
DCB Decachlorobiphenyl	117		10 - 138
Tetrachloro-m-xylene	83		10 - 150
Tetrachloro-m-xylene	112		10 - 150

Lab Sample ID: LCSD 460-828789/3-A

Matrix: Water

Analysis Batch: 828964

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828789

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	4.00	3.57		ug/L		89	66 - 141	2	30
Aroclor 1016	4.00	4.42		ug/L		111	66 - 141	4	30
Aroclor 1260	4.00	4.09		ug/L		102	66 - 142	1	30
Aroclor 1260	4.00	4.60		ug/L		115	66 - 142	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	119		10 - 138
DCB Decachlorobiphenyl	117		10 - 138
Tetrachloro-m-xylene	82		10 - 150
Tetrachloro-m-xylene	112		10 - 150

Lab Sample ID: MB 460-828865/1-A

Matrix: Solid

Analysis Batch: 828933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1016	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1221	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1221	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1232	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1232	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1242	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1242	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1248	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1248	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1254	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1254	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1260	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1260	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor-1262	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor-1262	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-828865/1-A

Matrix: Solid

Analysis Batch: 828933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1268	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Aroclor 1268	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/17/22 16:54	02/18/22 12:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	108		37 - 150	02/17/22 16:54	02/18/22 12:04	1
DCB Decachlorobiphenyl	117		37 - 150	02/17/22 16:54	02/18/22 12:04	1
Tetrachloro-m-xylene	109		54 - 150	02/17/22 16:54	02/18/22 12:04	1
Tetrachloro-m-xylene	107		54 - 150	02/17/22 16:54	02/18/22 12:04	1

Lab Sample ID: LCS 460-828865/2-A

Matrix: Solid

Analysis Batch: 828933

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	339		ug/Kg		102	65 - 133
Aroclor 1016	333	317		ug/Kg		95	65 - 133
Aroclor 1260	333	329		ug/Kg		99	71 - 150
Aroclor 1260	333	334		ug/Kg		100	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	97		37 - 150
DCB Decachlorobiphenyl	101		37 - 150
Tetrachloro-m-xylene	96		54 - 150
Tetrachloro-m-xylene	93		54 - 150

Lab Sample ID: LCSD 460-828865/3-A

Matrix: Solid

Analysis Batch: 828933

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828865

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aroclor 1016	333	355		ug/Kg		106	65 - 133	5	30
Aroclor 1016	333	346		ug/Kg		104	65 - 133	9	30
Aroclor 1260	333	354		ug/Kg		106	71 - 150	7	30
Aroclor 1260	333	336		ug/Kg		101	71 - 150	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	99		37 - 150
DCB Decachlorobiphenyl	104		37 - 150
Tetrachloro-m-xylene	99		54 - 150
Tetrachloro-m-xylene	95		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-828921/1-A

Matrix: Water

Analysis Batch: 828956

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828921

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		02/18/22 01:49	02/18/22 09:56	1
2,4-D	1.2	U	1.2	0.13	ug/L		02/18/22 01:49	02/18/22 09:56	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		02/18/22 01:49	02/18/22 09:56	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		02/18/22 01:49	02/18/22 09:56	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		02/18/22 01:49	02/18/22 09:56	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		02/18/22 01:49	02/18/22 09:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	106		28 - 150	02/18/22 01:49	02/18/22 09:56	1
2,4-Dichlorophenylacetic acid	96		28 - 150	02/18/22 01:49	02/18/22 09:56	1

Lab Sample ID: LCS 460-828921/2-A

Matrix: Water

Analysis Batch: 828956

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	8.00	9.76		ug/L		122	36 - 139
2,4-D	8.00	8.29		ug/L		104	36 - 139
Silvex (2,4,5-TP)	2.00	2.98		ug/L		149	42 - 150
Silvex (2,4,5-TP)	2.00	2.85		ug/L		143	42 - 150
2,4,5-T	2.00	2.99		ug/L		150	45 - 150
2,4,5-T	2.00	2.45		ug/L		122	45 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	122		28 - 150
2,4-Dichlorophenylacetic acid	112		28 - 150

Lab Sample ID: LCSD 460-828921/3-A

Matrix: Water

Analysis Batch: 828956

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828921

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-D	8.00	10.3		ug/L		128	36 - 139	5	30
2,4-D	8.00	9.05		ug/L		113	36 - 139	9	30
Silvex (2,4,5-TP)	2.00	2.98		ug/L		149	42 - 150	0	30
Silvex (2,4,5-TP)	2.00	2.96		ug/L		148	42 - 150	4	30
2,4,5-T	2.00	2.96		ug/L		148	45 - 150	1	30
2,4,5-T	2.00	2.74		ug/L		137	45 - 150	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	128		28 - 150
2,4-Dichlorophenylacetic acid	117		28 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 460-828922/1-A

Matrix: Solid

Analysis Batch: 828955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 828922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/18/22 01:50	02/20/22 08:55	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/18/22 01:50	02/20/22 08:55	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	103		65 - 150				02/18/22 01:50	02/20/22 08:55	1
2,4-Dichlorophenylacetic acid	113		65 - 150				02/18/22 01:50	02/20/22 08:55	1

Lab Sample ID: LCS 460-828922/2-A

Matrix: Solid

Analysis Batch: 828955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 828922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	41.7	42.4		ug/Kg		102	58 - 150
Silvex (2,4,5-TP)	41.7	52.6		ug/Kg		126	58 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	110		65 - 150				
2,4-Dichlorophenylacetic acid	122		65 - 150				

Lab Sample ID: LCSD 460-828922/3-A

Matrix: Solid

Analysis Batch: 828955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 828922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	41.7	44.3		ug/Kg		106	58 - 150	4	30
Silvex (2,4,5-TP)	41.7	55.3		ug/Kg		133	58 - 150	5	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	113		65 - 150						
2,4-Dichlorophenylacetic acid	124		65 - 150						

Method: 537 (Modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-226621/1-B

Matrix: Solid

Analysis Batch: 227200

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 226621

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.049	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
8:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.017	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
NEtFOSAA	0.20	U	0.20	0.022	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
NMeFOSAA	0.20	U	0.20	0.031	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorobutanesulfonic acid	0.40	U	0.40	0.36	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorobutanoic acid	0.20	U	0.20	0.024	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorodecanesulfonic acid	0.20	U	0.20	0.021	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorodecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorododecanoic acid	0.20	U	0.20	0.023	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluoroheptanesulfonic acid	0.20	U	0.20	0.020	ug/Kg		02/22/22 21:30	02/25/22 01:12	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-226621/1-B

Matrix: Solid

Analysis Batch: 227200

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 226621

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid	0.20	U	0.20	0.024	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorohexanesulfonic acid	0.20	U	0.20	0.019	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorohexanoic acid	0.20	U	0.20	0.019	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorononanoic acid	0.20	U	0.20	0.023	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorooctanesulfonamide	0.20	U	0.20	0.021	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorooctanesulfonic acid	0.20	U	0.20	0.035	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorooctanoic acid	0.20	U	0.20	0.022	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluoropentanoic acid	0.20	U	0.20	0.024	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorotetradecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluorotridecanoic acid	0.20	U	0.20	0.021	ug/Kg		02/22/22 21:30	02/25/22 01:12	1
Perfluoroundecanoic acid	0.20	U	0.20	0.056	ug/Kg		02/22/22 21:30	02/25/22 01:12	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	80		10 - 200	02/22/22 21:30	02/25/22 01:12	1
M2-8:2 FTS	72		15 - 200	02/22/22 21:30	02/25/22 01:12	1
13C2 PFTeDA	73		10 - 169	02/22/22 21:30	02/25/22 01:12	1
13C3 PFBS	82		27 - 179	02/22/22 21:30	02/25/22 01:12	1
13C4 PFBA	79		28 - 153	02/22/22 21:30	02/25/22 01:12	1
13C4 PFHpA	77		10 - 178	02/22/22 21:30	02/25/22 01:12	1
13C5 PFPeA	75		24 - 161	02/22/22 21:30	02/25/22 01:12	1
13C8 PFOA	84		26 - 159	02/22/22 21:30	02/25/22 01:12	1
13C8 PFOS	79		41 - 154	02/22/22 21:30	02/25/22 01:12	1
d3-NMeFOSAA	60		10 - 178	02/22/22 21:30	02/25/22 01:12	1
d5-NEtFOSAA	62		10 - 193	02/22/22 21:30	02/25/22 01:12	1
13C3 PFHxS	84		24 - 171	02/22/22 21:30	02/25/22 01:12	1
13C5 PFHxA	78		10 - 174	02/22/22 21:30	02/25/22 01:12	1
13C6 PFDA	79		26 - 161	02/22/22 21:30	02/25/22 01:12	1
13C7 PFUnA	75		12 - 173	02/22/22 21:30	02/25/22 01:12	1
13C8 FOSA	69		14 - 163	02/22/22 21:30	02/25/22 01:12	1
13C2-PFDoDA	72		11 - 166	02/22/22 21:30	02/25/22 01:12	1
13C9 PFNA	79		26 - 165	02/22/22 21:30	02/25/22 01:12	1

Lab Sample ID: LCS 410-226621/2-B

Matrix: Solid

Analysis Batch: 227200

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 226621

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
6:2 Fluorotelomer sulfonic acid	2.37	2.277		ug/Kg		96	59 - 135
8:2 Fluorotelomer sulfonic acid	2.40	2.528		ug/Kg		106	55 - 133
NEtFOSAA	2.50	2.417		ug/Kg		97	57 - 127
NMeFOSAA	2.50	2.587		ug/Kg		103	60 - 134
Perfluorobutanesulfonic acid	2.21	2.188		ug/Kg		99	54 - 130
Perfluorobutanoic acid	2.50	2.416		ug/Kg		97	60 - 128
Perfluorodecanesulfonic acid	2.41	2.280		ug/Kg		95	57 - 132
Perfluorodecanoic acid	2.50	2.309		ug/Kg		92	56 - 133
Perfluorododecanoic acid	2.50	2.591		ug/Kg		104	60 - 135
Perfluoroheptanesulfonic acid	2.38	2.271		ug/Kg		95	59 - 132
Perfluoroheptanoic acid	2.50	2.585		ug/Kg		103	59 - 137
Perfluorohexanesulfonic acid	2.28	2.331		ug/Kg		102	59 - 129

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-226621/2-B

Matrix: Solid

Analysis Batch: 227200

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 226621

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	2.50	2.529		ug/Kg		101	59 - 132
Perfluorononanoic acid	2.50	2.574		ug/Kg		103	61 - 134
Perfluorooctanesulfonamide	2.50	2.519		ug/Kg		101	47 - 149
Perfluorooctanesulfonic acid	2.31	2.250		ug/Kg		97	61 - 126
Perfluorooctanoic acid	2.50	2.413		ug/Kg		97	59 - 131
Perfluoropentanoic acid	2.50	2.288		ug/Kg		92	58 - 134
Perfluorotetradecanoic acid	2.50	2.502		ug/Kg		100	62 - 134
Perfluorotridecanoic acid	2.50	2.548		ug/Kg		102	53 - 143
Perfluoroundecanoic acid	2.50	2.516		ug/Kg		101	60 - 134

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	75		10 - 200
M2-8:2 FTS	70		15 - 200
13C2 PFTeDA	72		10 - 169
13C3 PFBS	80		27 - 179
13C4 PFBA	76		28 - 153
13C4 PFHpA	72		10 - 178
13C5 PFPeA	75		24 - 161
13C8 PFOA	77		26 - 159
13C8 PFOS	76		41 - 154
d3-NMeFOSAA	58		10 - 178
d5-NEtFOSAA	62		10 - 193
13C3 PFHxS	77		24 - 171
13C5 PFHxA	72		10 - 174
13C6 PFDA	75		26 - 161
13C7 PFUnA	71		12 - 173
13C8 FOSA	67		14 - 163
13C2-PFDoDA	71		11 - 166
13C9 PFNA	78		26 - 165

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-226056/1-A

Matrix: Water

Analysis Batch: 226550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 226056

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluoroheptanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorooctanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorononanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorodecanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorotridecanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorotetradecanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorohexanesulfonic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorooctanesulfonic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
NEtFOSAA	3.00	U	3.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
NMeFOSAA	2.00	U	2.00	0.60	ng/L		02/21/22 17:01	02/23/22 07:47	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-226056/1-A

Matrix: Water

Analysis Batch: 226550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 226056

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorodecanesulfonic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorooctanesulfonamide	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorobutanoic acid	5.00	U	5.00	2.00	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluoroundecanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluorododecanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1
6:2 Fluorotelomer sulfonic acid	5.00	U	5.00	2.00	ng/L		02/21/22 17:01	02/23/22 07:47	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	1.00	ng/L		02/21/22 17:01	02/23/22 07:47	1
Perfluoropentanoic acid	2.00	U	2.00	0.50	ng/L		02/21/22 17:01	02/23/22 07:47	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	91		33 - 200	02/21/22 17:01	02/23/22 07:47	1
M2-6:2 FTS	100		17 - 200	02/21/22 17:01	02/23/22 07:47	1
13C5 PFHxA	99		24 - 179	02/21/22 17:01	02/23/22 07:47	1
13C4 PFHpA	101		31 - 182	02/21/22 17:01	02/23/22 07:47	1
13C8 PFOA	103		48 - 162	02/21/22 17:01	02/23/22 07:47	1
13C9 PFNA	103		51 - 167	02/21/22 17:01	02/23/22 07:47	1
13C6 PFDA	97		49 - 163	02/21/22 17:01	02/23/22 07:47	1
13C7 PFUnA	97		34 - 174	02/21/22 17:01	02/23/22 07:47	1
13C2-PFDoDA	89		17 - 176	02/21/22 17:01	02/23/22 07:47	1
13C2 PFTeDA	86		10 - 179	02/21/22 17:01	02/23/22 07:47	1
13C3 PFBS	95		16 - 200	02/21/22 17:01	02/23/22 07:47	1
13C3 PFHxS	97		28 - 188	02/21/22 17:01	02/23/22 07:47	1
13C8 PFOS	102		51 - 159	02/21/22 17:01	02/23/22 07:47	1
d3-NMeFOSAA	93		31 - 174	02/21/22 17:01	02/23/22 07:47	1
d5-NEtFOSAA	87		29 - 195	02/21/22 17:01	02/23/22 07:47	1
13C8 FOSA	85		10 - 168	02/21/22 17:01	02/23/22 07:47	1
13C4 PFBA	99		42 - 165	02/21/22 17:01	02/23/22 07:47	1
13C5 PFPeA	97		38 - 187	02/21/22 17:01	02/23/22 07:47	1

Lab Sample ID: LCS 410-226056/2-A

Matrix: Water

Analysis Batch: 226550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 226056

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.6	25.79		ng/L		101	58 - 139
Perfluoroheptanoic acid	25.6	26.06		ng/L		102	59 - 145
Perfluorooctanoic acid	25.6	24.16		ng/L		94	51 - 145
Perfluorononanoic acid	25.6	25.51		ng/L		100	61 - 139
Perfluorodecanoic acid	25.6	23.40		ng/L		91	56 - 138
Perfluorotridecanoic acid	25.6	26.96		ng/L		105	58 - 146
Perfluorotetradecanoic acid	25.6	25.92		ng/L		101	62 - 139
Perfluorobutanesulfonic acid	22.7	22.77		ng/L		101	53 - 138
Perfluorohexanesulfonic acid	23.3	22.86		ng/L		98	58 - 134
Perfluorooctanesulfonic acid	23.7	21.80		ng/L		92	45 - 150
NEtFOSAA	25.6	25.85		ng/L		101	55 - 134
NMeFOSAA	25.6	27.63		ng/L		108	59 - 140
Perfluoroheptanesulfonic acid	24.4	23.49		ng/L		96	56 - 140
Perfluorodecanesulfonic acid	24.7	22.76		ng/L		92	55 - 137

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-226056/2-A

Matrix: Water

Analysis Batch: 226550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 226056

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonamide	25.6	32.94		ng/L		129	43 - 167
Perfluorobutanoic acid	25.6	24.79		ng/L		97	59 - 136
Perfluoroundecanoic acid	25.6	25.00		ng/L		98	60 - 141
Perfluorododecanoic acid	25.6	27.15		ng/L		106	59 - 143
6:2 Fluorotelomer sulfonic acid	24.3	25.48		ng/L		105	28 - 173
8:2 Fluorotelomer sulfonic acid	24.5	26.22		ng/L		107	55 - 138
Perfluoropentanoic acid	25.6	24.60		ng/L		96	57 - 141

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-8:2 FTS	92		33 - 200
M2-6:2 FTS	102		17 - 200
13C5 PFHxA	98		24 - 179
13C4 PFHpA	101		31 - 182
13C8 PFOA	106		48 - 162
13C9 PFNA	106		51 - 167
13C6 PFDA	102		49 - 163
13C7 PFUnA	102		34 - 174
13C2-PFDoDA	92		17 - 176
13C2 PFTeDA	90		10 - 179
13C3 PFBS	101		16 - 200
13C3 PFHxS	103		28 - 188
13C8 PFOS	103		51 - 159
d3-NMeFOSAA	89		31 - 174
d5-NEtFOSAA	96		29 - 195
13C8 FOSA	82		10 - 168
13C4 PFBA	105		42 - 165
13C5 PFPeA	105		38 - 187

Lab Sample ID: LCSD 410-226056/3-A

Matrix: Water

Analysis Batch: 226550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 226056

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorohexanoic acid	25.6	27.30		ng/L		107	58 - 139	6	30
Perfluoroheptanoic acid	25.6	27.31		ng/L		107	59 - 145	5	30
Perfluorooctanoic acid	25.6	25.75		ng/L		101	51 - 145	6	30
Perfluorononanoic acid	25.6	27.60		ng/L		108	61 - 139	8	30
Perfluorodecanoic acid	25.6	24.81		ng/L		97	56 - 138	6	30
Perfluorotridecanoic acid	25.6	26.28		ng/L		103	58 - 146	3	30
Perfluorotetradecanoic acid	25.6	25.62		ng/L		100	62 - 139	1	30
Perfluorobutanesulfonic acid	22.7	23.06		ng/L		102	53 - 138	1	30
Perfluorohexanesulfonic acid	23.3	23.52		ng/L		101	58 - 134	3	30
Perfluorooctanesulfonic acid	23.7	22.59		ng/L		95	45 - 150	4	30
NEtFOSAA	25.6	25.81		ng/L		101	55 - 134	0	30
NMeFOSAA	25.6	26.07		ng/L		102	59 - 140	6	30
Perfluoroheptanesulfonic acid	24.4	25.17		ng/L		103	56 - 140	7	30
Perfluorodecanesulfonic acid	24.7	23.91		ng/L		97	55 - 137	5	30
Perfluorooctanesulfonamide	25.6	31.12		ng/L		122	43 - 167	6	30
Perfluorobutanoic acid	25.6	25.18		ng/L		98	59 - 136	2	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-226056/3-A

Matrix: Water

Analysis Batch: 226550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 226056

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroundecanoic acid	25.6	25.94		ng/L		101	60 - 141	4	30
Perfluorododecanoic acid	25.6	26.23		ng/L		102	59 - 143	3	30
6:2 Fluorotelomer sulfonic acid	24.3	27.00		ng/L		111	28 - 173	6	30
8:2 Fluorotelomer sulfonic acid	24.5	25.60		ng/L		104	55 - 138	2	30
Perfluoropentanoic acid	25.6	25.16		ng/L		98	57 - 141	2	30

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	108		33 - 200
M2-6:2 FTS	108		17 - 200
13C5 PFHxA	107		24 - 179
13C4 PFHpA	110		31 - 182
13C8 PFOA	113		48 - 162
13C9 PFNA	107		51 - 167
13C6 PFDA	109		49 - 163
13C7 PFUnA	110		34 - 174
13C2-PFDoDA	106		17 - 176
13C2 PFTeDA	106		10 - 179
13C3 PFBS	107		16 - 200
13C3 PFHxS	110		28 - 188
13C8 PFOS	107		51 - 159
d3-NMeFOSAA	102		31 - 174
d5-NEtFOSAA	104		29 - 195
13C8 FOSA	96		10 - 168
13C4 PFBA	110		42 - 165
13C5 PFPeA	109		38 - 187

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-829593/1-A

Matrix: Water

Analysis Batch: 829621

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829593

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	2.0	U	2.0	0.29	ug/L		02/22/22 08:35	02/22/22 10:52	1
Arsenic	2.0	U	2.0	0.89	ug/L		02/22/22 08:35	02/22/22 10:52	1
Barium	4.0	U	4.0	0.91	ug/L		02/22/22 08:35	02/22/22 10:52	1
Beryllium	0.80	U	0.80	0.13	ug/L		02/22/22 08:35	02/22/22 10:52	1
Cadmium	2.0	U	2.0	0.39	ug/L		02/22/22 08:35	02/22/22 10:52	1
Chromium	4.0	U	4.0	2.5	ug/L		02/22/22 08:35	02/22/22 10:52	1
Copper	4.0	U	4.0	2.5	ug/L		02/22/22 08:35	02/22/22 10:52	1
Manganese	8.0	U	8.0	1.5	ug/L		02/22/22 08:35	02/22/22 10:52	1
Nickel	4.0	U	4.0	0.91	ug/L		02/22/22 08:35	02/22/22 10:52	1
Lead	1.2	U	1.2	0.84	ug/L		02/22/22 08:35	02/22/22 10:52	1
Selenium	2.5	U	2.5	0.59	ug/L		02/22/22 08:35	02/22/22 10:52	1
Zinc	16.0	U	16.0	6.5	ug/L		02/22/22 08:35	02/22/22 10:52	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-829593/2-A

Matrix: Water

Analysis Batch: 829621

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829593

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	25.71		ug/L		103	80 - 120
Arsenic	50.0	51.62		ug/L		103	80 - 120
Barium	50.0	50.13		ug/L		100	80 - 120
Beryllium	25.0	24.48		ug/L		98	80 - 120
Cadmium	25.0	25.09		ug/L		100	80 - 120
Chromium	50.0	51.49		ug/L		103	80 - 120
Copper	50.0	53.68		ug/L		107	80 - 120
Manganese	250	263.4		ug/L		105	80 - 120
Nickel	50.0	53.01		ug/L		106	80 - 120
Lead	25.0	24.91		ug/L		100	80 - 120
Selenium	50.0	51.42		ug/L		103	80 - 120
Zinc	250	269.0		ug/L		108	80 - 120

Lab Sample ID: MB 460-830503/1-A

Matrix: Solid

Analysis Batch: 830568

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 830503

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Barium	2.0	U	2.0	0.15	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Chromium	2.0	U	2.0	0.27	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Copper	2.0	U	2.0	0.37	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Manganese	4.0	U	4.0	0.40	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Nickel	2.0	U	2.0	0.47	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Lead	0.60	U	0.60	0.20	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Selenium	1.3	U	1.3	0.13	mg/Kg		02/26/22 07:55	02/26/22 14:01	1
Zinc	8.0	U	8.0	3.1	mg/Kg		02/26/22 07:55	02/26/22 14:01	1

Lab Sample ID: LCSSRM 460-830503/2-A ^5

Matrix: Solid

Analysis Batch: 830568

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 830503

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	21.54		mg/Kg		64.1	48.2 - 73.5
Arsenic	140	147.4		mg/Kg		105.3	82.9 - 117.9
Barium	202	206.5		mg/Kg		102.2	81.2 - 118.3
Beryllium	42.6	42.41		mg/Kg		99.6	81.0 - 119.0
Cadmium	97.9	100.5		mg/Kg		102.6	80.0 - 119.5
Chromium	60.4	60.78		mg/Kg		100.6	80.3 - 119.7
Copper	122	127.0		mg/Kg		104.1	82.8 - 117.2
Manganese	457	476.7		mg/Kg		104.3	79.6 - 120.6

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-830503/2-A ^5
Matrix: Solid
Analysis Batch: 830568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 830503

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	151	156.2		mg/Kg		103.5	79.5 - 121.2
Lead	56.7	60.31		mg/Kg		106.4	82.9 - 116.9
Selenium	35.5	37.16		mg/Kg		104.7	77.5 - 122.3
Zinc	186	188.6		mg/Kg		101.4	79.0 - 121.0

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-829397/1-A
Matrix: Water
Analysis Batch: 829475

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 829397

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		02/21/22 10:53	02/21/22 14:02	1

Lab Sample ID: LCS 460-829397/2-A
Matrix: Water
Analysis Batch: 829475

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 829397

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.05		ug/L		105	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-829550/1-A
Matrix: Solid
Analysis Batch: 829625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 829550

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		02/22/22 04:42	02/22/22 10:27	1

Lab Sample ID: LCSSRM 460-829550/2-A ^40
Matrix: Solid
Analysis Batch: 829625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 829550

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	17.28		mg/Kg		104.7	74.5 - 124.8

Lab Sample ID: 460-252650-1 MS
Matrix: Solid
Analysis Batch: 829625

Client Sample ID: 138_PE-4
Prep Type: Total/NA
Prep Batch: 829550

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.019		0.0937	0.119		mg/Kg	☆	107	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 460-252650-1 DU
Matrix: Solid
Analysis Batch: 829625

Client Sample ID: 138_PE-4
Prep Type: Total/NA
Prep Batch: 829550

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.019		0.0210		mg/Kg	☆	10	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-828831/10
Matrix: Water
Analysis Batch: 828831

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	10.0	U	10.0	8.1	ug/L			02/17/22 12:53	1

Lab Sample ID: LCSSRM 460-828831/11
Matrix: Water
Analysis Batch: 828831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	79.4	74.48		ug/L		93.8	84.1 - 114.4

Lab Sample ID: MRL 460-828831/9
Matrix: Water
Analysis Batch: 828831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	10.0	11.35		ug/L		114	50 - 150

Lab Sample ID: 460-252650-3 MS
Matrix: Water
Analysis Batch: 828831

Client Sample ID: 140_FB-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	10.0	U	30.0	31.68		ug/L		106	85 - 115

Lab Sample ID: 460-252650-3 DU
Matrix: Water
Analysis Batch: 828831

Client Sample ID: 140_FB-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	10.0	U	10.0	U	ug/L		NC	20

Lab Sample ID: MB 460-829193/1-A
Matrix: Solid
Analysis Batch: 829254

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 829193

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		02/19/22 10:07	02/20/22 13:37	1

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS1 460-829193/3-A

Matrix: Solid

Analysis Batch: 829254

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829193

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	674.2		mg/Kg		95	80 - 120

Lab Sample ID: LCSSRM 460-829193/2-A

Matrix: Solid

Analysis Batch: 829254

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829193

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	15.9	14.47		mg/Kg		91.1	84.1 - 114.4

Lab Sample ID: LCSSRM 460-829193/4-A

Matrix: Solid

Analysis Batch: 829254

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829193

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	123.1		mg/Kg		93.9	61.3 - 138.2

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MRL 460-829158/1-A

Matrix: Water

Analysis Batch: 829319

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829158

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0105		mg/L		105	50 - 150

Lab Sample ID: MB 460-829282/1-A

Matrix: Water

Analysis Batch: 829319

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		02/20/22 09:17	02/20/22 14:30	1

Lab Sample ID: LCS 460-829282/2-A

Matrix: Water

Analysis Batch: 829319

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.102		mg/L		102	85 - 115

Lab Sample ID: MB 460-829487/2-A

Matrix: Solid

Analysis Batch: 829518

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		02/21/22 18:54	02/21/22 21:59	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCSSRM 460-829487/3-A ^20

Matrix: Solid

Analysis Batch: 829518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829487

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	95.8	85.60		mg/Kg		89.3	25.6 - 125.2

Lab Sample ID: MRL 460-829487/1-A

Matrix: Solid

Analysis Batch: 829518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829487

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0114		mg/L		114	50 - 150

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

GC/MS VOA

Prep Batch: 828799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	5035	
460-252650-2	139_DUP-7	Total/NA	Solid	5035	

Analysis Batch: 829238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	8260D	828799
460-252650-2	139_DUP-7	Total/NA	Solid	8260D	828799
MB 460-829238/9	Method Blank	Total/NA	Solid	8260D	
LCS 460-829238/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-829238/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 829468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-4	141_TB-13	Total/NA	Water	8260D	
MB 460-829468/7	Method Blank	Total/NA	Water	8260D	
LCS 460-829468/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-829468/4	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 829551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	8260D	
MB 460-829551/7	Method Blank	Total/NA	Water	8260D	
LCS 460-829551/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-829551/4	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 828785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	3510C	
MB 460-828785/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-828785/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-828785/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 828901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	8270E SIM ID	828785
MB 460-828785/1-A	Method Blank	Total/NA	Water	8270E SIM ID	828785
LCS 460-828785/2-A	Lab Control Sample	Total/NA	Water	8270E SIM ID	828785
LCSD 460-828785/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM ID	828785

Prep Batch: 828963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	3510C	
MB 460-828963/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-828963/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-828963/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 829002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

GC/MS Semi VOA (Continued)

Prep Batch: 829002 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-2	139_DUP-7	Total/NA	Solid	3546	
MB 460-829002/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-829002/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-829002/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 829088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	8270E	828963
MB 460-828963/1-A	Method Blank	Total/NA	Water	8270E	828963
LCS 460-828963/2-A	Lab Control Sample	Total/NA	Water	8270E	828963
LCSD 460-828963/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	828963

Analysis Batch: 829098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	8270E	829002
460-252650-2	139_DUP-7	Total/NA	Solid	8270E	829002
MB 460-829002/1-A	Method Blank	Total/NA	Solid	8270E	829002
LCS 460-829002/2-A	Lab Control Sample	Total/NA	Solid	8270E	829002
LCSD 460-829002/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	829002

GC Semi VOA

Prep Batch: 828782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	3510C	
MB 460-828782/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-828782/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-828782/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 828789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	3510C	
MB 460-828789/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-828789/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-828789/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 828804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	8081B	828868
460-252650-2	139_DUP-7	Total/NA	Solid	8081B	828868
MB 460-828868/1-A	Method Blank	Total/NA	Solid	8081B	828868
LCS 460-828868/2-A	Lab Control Sample	Total/NA	Solid	8081B	828868
LCSD 460-828868/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	828868

Analysis Batch: 828808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	8081B	828782
MB 460-828782/1-A	Method Blank	Total/NA	Water	8081B	828782
LCS 460-828782/2-A	Lab Control Sample	Total/NA	Water	8081B	828782
LCSD 460-828782/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	828782

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

GC Semi VOA

Prep Batch: 828865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	3546	
460-252650-2	139_DUP-7	Total/NA	Solid	3546	
MB 460-828865/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-828865/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-828865/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 828868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	3546	
460-252650-2	139_DUP-7	Total/NA	Solid	3546	
MB 460-828868/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-828868/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-828868/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 828921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	8151A	
MB 460-828921/1-A	Method Blank	Total/NA	Water	8151A	
LCS 460-828921/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 460-828921/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Prep Batch: 828922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	8151A	
460-252650-2	139_DUP-7	Total/NA	Solid	8151A	
MB 460-828922/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-828922/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-828922/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 828933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	8082A	828865
460-252650-2	139_DUP-7	Total/NA	Solid	8082A	828865
MB 460-828865/1-A	Method Blank	Total/NA	Solid	8082A	828865
LCS 460-828865/2-A	Lab Control Sample	Total/NA	Solid	8082A	828865
LCSD 460-828865/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	828865

Analysis Batch: 828955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	8151A	828922
460-252650-2	139_DUP-7	Total/NA	Solid	8151A	828922
MB 460-828922/1-A	Method Blank	Total/NA	Solid	8151A	828922
LCS 460-828922/2-A	Lab Control Sample	Total/NA	Solid	8151A	828922
LCSD 460-828922/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	828922

Analysis Batch: 828956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	8151A	828921
MB 460-828921/1-A	Method Blank	Total/NA	Water	8151A	828921
LCS 460-828921/2-A	Lab Control Sample	Total/NA	Water	8151A	828921
LCSD 460-828921/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	828921

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

GC Semi VOA

Analysis Batch: 828964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	8082A	828789
MB 460-828789/1-A	Method Blank	Total/NA	Water	8082A	828789
LCS 460-828789/2-A	Lab Control Sample	Total/NA	Water	8082A	828789
LCSD 460-828789/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	828789

LCMS

Prep Batch: 226056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	537 IDA	
MB 410-226056/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-226056/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-226056/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

Analysis Batch: 226550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	537 IDA	226056
MB 410-226056/1-A	Method Blank	Total/NA	Water	537 IDA	226056
LCS 410-226056/2-A	Lab Control Sample	Total/NA	Water	537 IDA	226056
LCSD 410-226056/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	226056

Prep Batch: 226621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	SHAKE	
460-252650-2	139_DUP-7	Total/NA	Solid	SHAKE	
MB 410-226621/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-226621/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	

Cleanup Batch: 227148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	Extract Aliquot	226621
460-252650-2	139_DUP-7	Total/NA	Solid	Extract Aliquot	226621
MB 410-226621/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	226621
LCS 410-226621/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	226621

Analysis Batch: 227200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	537 (Modified)	227148
460-252650-2	139_DUP-7	Total/NA	Solid	537 (Modified)	227148
MB 410-226621/1-B	Method Blank	Total/NA	Solid	537 (Modified)	227148
LCS 410-226621/2-B	Lab Control Sample	Total/NA	Solid	537 (Modified)	227148

Metals

Prep Batch: 829397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	7470A	
MB 460-829397/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-829397/2-A	Lab Control Sample	Total/NA	Water	7470A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Metals

Analysis Batch: 829475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	7470A	829397
MB 460-829397/1-A	Method Blank	Total/NA	Water	7470A	829397
LCS 460-829397/2-A	Lab Control Sample	Total/NA	Water	7470A	829397

Prep Batch: 829550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	7471B	
460-252650-2	139_DUP-7	Total/NA	Solid	7471B	
MB 460-829550/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-829550/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-252650-1 MS	138_PE-4	Total/NA	Solid	7471B	
460-252650-1 DU	138_PE-4	Total/NA	Solid	7471B	

Prep Batch: 829593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	3010A	
MB 460-829593/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-829593/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 829621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	6020B	829593
MB 460-829593/1-A	Method Blank	Total/NA	Water	6020B	829593
LCS 460-829593/2-A	Lab Control Sample	Total/NA	Water	6020B	829593

Analysis Batch: 829625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	7471B	829550
460-252650-2	139_DUP-7	Total/NA	Solid	7471B	829550
MB 460-829550/1-A	Method Blank	Total/NA	Solid	7471B	829550
LCSSRM 460-829550/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	829550
460-252650-1 MS	138_PE-4	Total/NA	Solid	7471B	829550
460-252650-1 DU	138_PE-4	Total/NA	Solid	7471B	829550

Prep Batch: 830503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	3050B	
460-252650-2	139_DUP-7	Total/NA	Solid	3050B	
MB 460-830503/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-830503/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 830568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	6020B	830503
460-252650-2	139_DUP-7	Total/NA	Solid	6020B	830503
MB 460-830503/1-A	Method Blank	Total/NA	Solid	6020B	830503
LCSSRM 460-830503/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	830503

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

General Chemistry

Analysis Batch: 828831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	7196A	
MB 460-828831/10	Method Blank	Total/NA	Water	7196A	
LCSSRM 460-828831/11	Lab Control Sample	Total/NA	Water	7196A	
MRL 460-828831/9	Lab Control Sample	Total/NA	Water	7196A	
460-252650-3 MS	140_FB-8	Total/NA	Water	7196A	
460-252650-3 DU	140_FB-8	Total/NA	Water	7196A	

Prep Batch: 829158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-829158/1-A	Lab Control Sample	Total/NA	Water	9012B	

Prep Batch: 829193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	3060A	
460-252650-2	139_DUP-7	Total/NA	Solid	3060A	
MB 460-829193/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-829193/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-829193/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-829193/4-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 829254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	7196A	829193
460-252650-2	139_DUP-7	Total/NA	Solid	7196A	829193
MB 460-829193/1-A	Method Blank	Total/NA	Solid	7196A	829193
LCSI 460-829193/3-A	Lab Control Sample	Total/NA	Solid	7196A	829193
LCSSRM 460-829193/2-A	Lab Control Sample	Total/NA	Solid	7196A	829193
LCSSRM 460-829193/4-A	Lab Control Sample	Total/NA	Solid	7196A	829193

Prep Batch: 829282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	9012B	
MB 460-829282/1-A	Method Blank	Total/NA	Water	9012B	
LCS 460-829282/2-A	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 829319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-3	140_FB-8	Total/NA	Water	9012B	829282
MB 460-829282/1-A	Method Blank	Total/NA	Water	9012B	829282
LCS 460-829282/2-A	Lab Control Sample	Total/NA	Water	9012B	829282
MRL 460-829158/1-A	Lab Control Sample	Total/NA	Water	9012B	829158

Analysis Batch: 829333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	7196A	
460-252650-2	139_DUP-7	Total/NA	Solid	7196A	
460-252650-3	140_FB-8	Total/NA	Water	7196A	

Analysis Batch: 829393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	Moisture	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

General Chemistry (Continued)

Analysis Batch: 829393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-2	139_DUP-7	Total/NA	Solid	Moisture	

Prep Batch: 829487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	9012B	
460-252650-2	139_DUP-7	Total/NA	Solid	9012B	
MB 460-829487/2-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-829487/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
MRL 460-829487/1-A	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 829518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252650-1	138_PE-4	Total/NA	Solid	9012B	829487
460-252650-2	139_DUP-7	Total/NA	Solid	9012B	829487
MB 460-829487/2-A	Method Blank	Total/NA	Solid	9012B	829487
LCSSRM 460-829487/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	829487
MRL 460-829487/1-A	Lab Control Sample	Total/NA	Solid	9012B	829487

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 138_PE-4

Date Collected: 02/16/22 13:30

Date Received: 02/16/22 19:00

Lab Sample ID: 460-252650-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	829333	02/20/22 18:10	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	829393	02/21/22 10:57	MVA	TAL EDI

Client Sample ID: 138_PE-4

Date Collected: 02/16/22 13:30

Date Received: 02/16/22 19:00

Lab Sample ID: 460-252650-1

Matrix: Solid

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			828799	02/17/22 09:26	YXG	TAL EDI
Total/NA	Analysis	8260D		1	829238	02/20/22 07:46	AAT	TAL EDI
Total/NA	Prep	3546			829002	02/18/22 10:22	OTS	TAL EDI
Total/NA	Analysis	8270E		1	829098	02/18/22 21:38	YAH	TAL EDI
Total/NA	Prep	3546			828868	02/17/22 16:58	ARA	TAL EDI
Total/NA	Analysis	8081B		1	828804	02/18/22 05:28	FAM	TAL EDI
Total/NA	Prep	3546			828865	02/17/22 16:54	ARA	TAL EDI
Total/NA	Analysis	8082A		1	828933	02/18/22 10:08	JHP	TAL EDI
Total/NA	Prep	8151A			828922	02/18/22 01:50	AFR	TAL EDI
Total/NA	Analysis	8151A		1	828955	02/20/22 13:12	SAK	TAL EDI
Total/NA	Prep	SHAKE			226621	02/22/22 21:30	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			227148	02/24/22 06:53	VK3G	ELLE
Total/NA	Analysis	537 (Modified)		1	227200	02/25/22 01:46	ZG8V	ELLE
Total/NA	Prep	3050B			830503	02/26/22 07:55	SXC	TAL EDI
Total/NA	Analysis	6020B		1	830568	02/26/22 14:15	MDC	TAL EDI
Total/NA	Prep	7471B			829550	02/22/22 04:42	TJS	TAL EDI
Total/NA	Analysis	7471B		1	829625	02/22/22 10:30	TJS	TAL EDI
Total/NA	Prep	3060A			829193	02/19/22 10:07	OXG	TAL EDI
Total/NA	Analysis	7196A		1	829254	02/20/22 15:13	OXG	TAL EDI
Total/NA	Prep	9012B			829487	02/21/22 18:54	VBG	TAL EDI
Total/NA	Analysis	9012B		1	829518	02/21/22 22:23	VBG	TAL EDI

Client Sample ID: 139_DUP-7

Date Collected: 02/16/22 13:24

Date Received: 02/16/22 19:00

Lab Sample ID: 460-252650-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	829333	02/20/22 18:10	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	829393	02/21/22 10:57	MVA	TAL EDI

Client Sample ID: 139_DUP-7

Date Collected: 02/16/22 13:24

Date Received: 02/16/22 19:00

Lab Sample ID: 460-252650-2

Matrix: Solid

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			828799	02/17/22 09:26	YXG	TAL EDI
Total/NA	Analysis	8260D		1	829238	02/20/22 08:09	AAT	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 139_DUP-7

Lab Sample ID: 460-252650-2

Date Collected: 02/16/22 13:24

Matrix: Solid

Date Received: 02/16/22 19:00

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			829002	02/18/22 10:22	OTS	TAL EDI
Total/NA	Analysis	8270E		1	829098	02/18/22 22:02	YAH	TAL EDI
Total/NA	Prep	3546			828868	02/17/22 16:58	ARA	TAL EDI
Total/NA	Analysis	8081B		1	828804	02/18/22 05:44	FAM	TAL EDI
Total/NA	Prep	3546			828865	02/17/22 16:54	ARA	TAL EDI
Total/NA	Analysis	8082A		1	828933	02/18/22 10:24	JHP	TAL EDI
Total/NA	Prep	8151A			828922	02/18/22 01:50	AFR	TAL EDI
Total/NA	Analysis	8151A		1	828955	02/20/22 13:25	SAK	TAL EDI
Total/NA	Prep	SHAKE			226621	02/22/22 21:30	K9VR	ELLE
Total/NA	Cleanup	Extract Aliquot			227148	02/24/22 06:53	VK3G	ELLE
Total/NA	Analysis	537 (Modified)		1	227200	02/25/22 01:57	ZG8V	ELLE
Total/NA	Prep	3050B			830503	02/26/22 07:55	SXC	TAL EDI
Total/NA	Analysis	6020B		1	830568	02/26/22 14:17	MDC	TAL EDI
Total/NA	Prep	7471B			829550	02/22/22 04:42	TJS	TAL EDI
Total/NA	Analysis	7471B		1	829625	02/22/22 10:41	TJS	TAL EDI
Total/NA	Prep	3060A			829193	02/19/22 10:07	OXG	TAL EDI
Total/NA	Analysis	7196A		1	829254	02/20/22 15:13	OXG	TAL EDI
Total/NA	Prep	9012B			829487	02/21/22 18:54	VBG	TAL EDI
Total/NA	Analysis	9012B		1	829518	02/21/22 22:24	VBG	TAL EDI

Client Sample ID: 140_FB-8

Lab Sample ID: 460-252650-3

Date Collected: 02/16/22 14:20

Matrix: Water

Date Received: 02/16/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	829551	02/22/22 08:45	SZD	TAL EDI
Total/NA	Prep	3510C			828963	02/18/22 07:45	DXD	TAL EDI
Total/NA	Analysis	8270E		1	829088	02/19/22 01:13	YAH	TAL EDI
Total/NA	Prep	3510C			828785	02/17/22 10:00	OTS	TAL EDI
Total/NA	Analysis	8270E SIM ID		1	828901	02/18/22 02:56	MME	TAL EDI
Total/NA	Prep	3510C			828782	02/17/22 09:56	ZEH	TAL EDI
Total/NA	Analysis	8081B		1	828808	02/18/22 06:40	FAM	TAL EDI
Total/NA	Prep	3510C			828789	02/17/22 10:02	ZEH	TAL EDI
Total/NA	Analysis	8082A		1	828964	02/18/22 13:51	JHP	TAL EDI
Total/NA	Prep	8151A			828921	02/18/22 01:49	AFR	TAL EDI
Total/NA	Analysis	8151A		1	828956	02/18/22 10:53	SAK	TAL EDI
Total/NA	Prep	537 IDA			226056	02/21/22 17:01	ZWK6	ELLE
Total/NA	Analysis	537 IDA		1	226550	02/23/22 12:02	ZG8V	ELLE
Total/NA	Prep	3010A			829593	02/22/22 08:35	RSS	TAL EDI
Total/NA	Analysis	6020B		1	829621	02/22/22 10:19	MDC	TAL EDI
Total/NA	Prep	7470A			829397	02/21/22 10:53	RBS	TAL EDI
Total/NA	Analysis	7470A		1	829475	02/21/22 14:46	RBS	TAL EDI
Total/NA	Analysis	7196A		1	829333	02/20/22 18:10	TJW	TAL EDI
Total/NA	Analysis	7196A		1	828831	02/17/22 12:55	OXG	TAL EDI

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Client Sample ID: 140_FB-8

Date Collected: 02/16/22 14:20

Date Received: 02/16/22 19:00

Lab Sample ID: 460-252650-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			829282	02/20/22 12:15	VBG	TAL EDI
Total/NA	Analysis	9012B		1	829319	02/20/22 14:55	VBG	TAL EDI

Client Sample ID: 141_TB-13

Date Collected: 02/16/22 14:20

Date Received: 02/16/22 19:00

Lab Sample ID: 460-252650-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	829468	02/21/22 19:32	VBP	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
7196A		Water	Cr (III)
8270E	3510C	Water	3 & 4 Methylphenol
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22 *
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22 *
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-205	01-31-22 *
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-22 *
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	02-28-22
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270E SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 (Modified)	Fluorinated Alkyl Substances	EPA	ELLE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
7470A	Preparation, Mercury	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-252650-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-252650-1	138_PE-4	Solid	02/16/22 13:30	02/16/22 19:00
460-252650-2	139_DUP-7	Solid	02/16/22 13:24	02/16/22 19:00
460-252650-3	140_FB-8	Water	02/16/22 14:20	02/16/22 19:00
460-252650-4	141_TB-13	Water	02/16/22 14:20	02/16/22 19:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

[illegible]

Job Number:

057458

Number of Coaters:

IR Gun #

Cooler Temperatures

	CORRECTED		RAM		CONNECTED		RAM		DISCONNECTED	
	DAILY	WEEKLY								
Cooler #1	☒	☒								
Cooler #2	☒	☒								
Cooler #3	☒	☒								
Cooler #4										
Cooler #5										
Cooler #6										
Cooler #7										
Cooler #8										
Cooler #9										
Cooler #10										
Cooler #11										
Cooler #12										
Cooler #13										
Cooler #14										
Cooler #15										
Cooler #16										
Cooler #17										
Cooler #18										
Cooler #19										
Cooler #20										
Cooler #21										
Cooler #22										
Cooler #23										
Cooler #24										
Cooler #25										
Cooler #26										
Cooler #27										
Cooler #28										
Cooler #29										
Cooler #30										
Cooler #31										
Cooler #32										
Cooler #33										
Cooler #34										
Cooler #35										
Cooler #36										
Cooler #37										
Cooler #38										
Cooler #39										
Cooler #40										
Cooler #41										
Cooler #42										
Cooler #43										
Cooler #44										
Cooler #45										
Cooler #46										
Cooler #47										
Cooler #48										
Cooler #49										
Cooler #50										
Cooler #51										
Cooler #52										
Cooler #53										
Cooler #54										
Cooler #55										
Cooler #56										
Cooler #57										
Cooler #58										
Cooler #59										
Cooler #60										
Cooler #61										
Cooler #62										
Cooler #63										
Cooler #64										
Cooler #65										
Cooler #66										
Cooler #67										
Cooler #68										
Cooler #69										
Cooler #70										
Cooler #71										
Cooler #72										
Cooler #73										
Cooler #74										
Cooler #75										
Cooler #76										
Cooler #77										
Cooler #78										
Cooler #79										
Cooler #80										
Cooler #81										
Cooler #82										
Cooler #83										
Cooler #84										
Cooler #85										
Cooler #86										
Cooler #87										
Cooler #88										
Cooler #89										
Cooler #90										
Cooler #91										
Cooler #92										
Cooler #93										
Cooler #94										
Cooler #95										
Cooler #96										
Cooler #97										
Cooler #98										
Cooler #99										
Cooler #100										

TALS Sample Number

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Lot # of Preservative(s):

i): _____ Expiration Date: _____
 The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.
 * Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

EDS-WI-038, Rev 4.1
10/22/2019

Initials:

Date: 2/6/22



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-252650-1

Login Number: 252650

List Number: 1

Creator: Sgro, Angela M

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-252650-1

Login Number: 252650

List Number: 2

Creator: Reiff, Nicole L

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 02/18/22 07:52 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

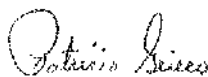
Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-252838-1
Client Project/Site: 2455 Third Ave

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Amanda Forsburg



Authorized for release by:
3/2/2022 11:26:49 AM

Patricia Grieco, Senior Project Manager
(732)593-2507
Patricia.Grieco@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

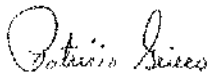
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
3/2/2022 11:26:49 AM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	10
Client Sample Results	11
Surrogate Summary	16
Isotope Dilution Summary	18
QC Sample Results	19
QC Association Summary	50
Lab Chronicle	55
Certification Summary	56
Method Summary	58
Sample Summary	59
Chain of Custody	60
Receipt Checklists	63



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
*	Surrogate is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
*	Duplicate analysis not within control limits.
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Job ID: 460-252838-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Ave

Report Number: 460-252838-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 02/18/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 150-PE-12 (460-252838-1) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 02/20/2022 and analyzed on 02/22/2022.

The continuing calibration verification (CCV) analyzed in batch 460-829737 was outside the method criteria for the following analyte: tert-Butylbenzene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-829545 was outside the method criteria for the following analyte: Tetrachloroethene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 460-829809 recovered outside control limits for the following analyte: 1,4-Dioxane.

2-Butanone (MEK), cis-1,2-Dichloroethene, Tetrachloroethene and Trichloroethene failed the recovery criteria low for LCS 460-829545/4. 2-Butanone (MEK) failed the recovery criteria low for LCS 460-829809/5. 2-Butanone (MEK) failed the recovery criteria low for LCSD 460-829545/5. For LCSD 460-829809/6, 2-Butanone (MEK) failed the recovery criteria low. 1,4-Dioxane failed the recovery criteria high. Also, 1,4-Dioxane exceeded the RPD limit. Refer to the QC report for details.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Job ID: 460-252838-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Toluene-d8 (Surr) failed the surrogate recovery criteria high for 150-PE-12MSD (460-252838-1MSD). Refer to the QC report for details.

Several analytes failed the recovery criteria low for the MS of sample 150-PE-12MS (460-252838-1) in batch 460-829809.

Several analytes failed the recovery criteria low for the MSD of sample 150-PE-12MSD (460-252838-1) in batch 460-829809.

Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 151-TB-15 (460-252838-2) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 02/23/2022.

1,4-Dioxane failed the recovery criteria high for LCSD 460-829737/5. Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 150-PE-12 (460-252838-1) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared and analyzed on 02/22/2022.

Several analytes failed the recovery criteria high for the MS of sample 150-PE-12MS (460-252838-1) in batch 460-829582.

Several analytes failed the recovery criteria high for the MSD of sample 150-PE-12MSD (460-252838-1) in batch 460-829582.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Sample 150-PE-12 (460-252838-1) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 02/22/2022 and analyzed on 02/23/2022.

The continuing calibration verification (CCV) associated with batch 460-829767 recovered outside acceptance criteria, low biased, for Methoxychlor on the secondary column. A reporting limit (RL) standard was analyzed, and the target analytes are detected. The analyte was within control limits on the primary column, the data are reported. (CCVIS 460-829767/3)

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Sample 150-PE-12 (460-252838-1) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 02/22/2022 and analyzed on 02/23/2022.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Job ID: 460-252838-1 (Continued)

Laboratory: Eurofins Edison (Continued)

CHLORINATED HERBICIDES

Sample 150-PE-12 (460-252838-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared and analyzed on 02/22/2022.

The continuing calibration verification (CCV) associated with batch 460-829567 recovered above the upper control limit for 2,4,5-T. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The closing continuing calibration verification (CCVC) associated with batch 460-829567 recovered above the upper control limit for many analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Silvex (2,4,5-TP) failed the recovery criteria high for LCS 460-829524/2-A. Silvex (2,4,5-TP) failed the recovery criteria high for LCSD 460-829524/3-A. Refer to the QC report for details.

Silvex (2,4,5-TP) failed the recovery criteria high for the MS of sample 150-PE-12MS (460-252838-1) in batch 460-829567.

Silvex (2,4,5-TP) failed the recovery criteria high for the MSD of sample 150-PE-12MSD (460-252838-1) in batch 460-829567.

Refer to the QC report for details.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Sample 150-PE-12 (460-252838-1) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 02/26/2022 and analyzed on 03/02/2022.

The recovery for the labeled isotope(s) is outside of QC acceptance limits in the background sample: 150-PE-12 (460-252838-1) and the associated matrix spike and matrix spike duplicate samples.

No other difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Sample 150-PE-12 (460-252838-1) was analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 02/26/2022 and analyzed on 02/27/2022.

Barium and Manganese failed the recovery criteria low for the MS of sample 150-PE-12MS (460-252838-1) in batch 460-830693.

Refer to the QC report for details.

Arsenic exceeded the RPD limit for the duplicate of sample 150-PE-12DU (460-252838-1). Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample 150-PE-12 (460-252838-1) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 02/25/2022 and analyzed on 02/26/2022.

No difficulties were encountered during the hexchrome Cr6 analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Job ID: 460-252838-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample 150-PE-12 (460-252838-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 02/24/2022.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Sample 150-PE-12 (460-252838-1) was analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 02/23/2022.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Sample 150-PE-12 (460-252838-1) was analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 02/24/2022.

Cyanide, Total failed the recovery criteria high for the MS of sample 150-PE-12MS (460-252838-1) in batch 460-830152.

Cyanide, Total failed the recovery criteria high for the MSD of sample 150-PE-12MSD (460-252838-1) in batch 460-830152.

Cyanide, Total failed the recovery criteria high for the MSD of sample 150-PE-12MSD (460-252838-1) in batch 460-830152.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Sample 150-PE-12 (460-252838-1) was analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 02/22/2022.

Percent Moisture exceeded the RPD limit for the duplicate of sample 150-PE-12DU (460-252838-1). Refer to the QC report for details.

No other difficulties were encountered during the %solids/moisture analysis.

All other quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Client Sample ID: 150-PE-12

Lab Sample ID: 460-252838-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	53	J	400	7.0	ug/Kg	1	✱		8270E	Total/NA
Fluoranthene	44	J	400	14	ug/Kg	1	✱		8270E	Total/NA
Pyrene	58	J	400	9.9	ug/Kg	1	✱		8270E	Total/NA
Benzo[a]anthracene	31	J	40	14	ug/Kg	1	✱		8270E	Total/NA
Chrysene	25	J	400	6.7	ug/Kg	1	✱		8270E	Total/NA
Benzo[b]fluoranthene	24	J	40	10	ug/Kg	1	✱		8270E	Total/NA
Benzo[k]fluoranthene	9.5	J	40	7.8	ug/Kg	1	✱		8270E	Total/NA
Benzo[a]pyrene	20	J	40	11	ug/Kg	1	✱		8270E	Total/NA
Arsenic	1.2		1.2	0.12	mg/Kg	1	✱		6020B	Total/NA
Barium	20.9		2.4	0.18	mg/Kg	1	✱		6020B	Total/NA
Beryllium	0.22	J	0.48	0.069	mg/Kg	1	✱		6020B	Total/NA
Chromium	7.3		2.4	0.32	mg/Kg	1	✱		6020B	Total/NA
Copper	7.5		2.4	0.45	mg/Kg	1	✱		6020B	Total/NA
Manganese	212		4.8	0.49	mg/Kg	1	✱		6020B	Total/NA
Nickel	6.9		2.4	0.57	mg/Kg	1	✱		6020B	Total/NA
Lead	7.3		0.73	0.24	mg/Kg	1	✱		6020B	Total/NA
Zinc	25.3		9.7	3.7	mg/Kg	1	✱		6020B	Total/NA
Mercury	0.030		0.020	0.0095	mg/Kg	1	✱		7471B	Total/NA
Cr (III)	7.3		2.0	2.0	mg/Kg	1			7196A	Total/NA

Client Sample ID: 151-TB-15

Lab Sample ID: 460-252838-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Client Sample ID: 150-PE-12

Lab Sample ID: 460-252838-1

Date Collected: 02/18/22 08:30

Matrix: Solid

Date Received: 02/18/22 20:00

Percent Solids: 82.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.32	U	0.32	0.075	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,1-Dichloroethane	0.32	U	0.32	0.066	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,1-Dichloroethene	0.32	U	0.32	0.072	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,2,4-Trimethylbenzene	0.32	U	0.32	0.079	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,2-Dichlorobenzene	0.32	U	0.32	0.12	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,2-Dichloroethane	0.32	U	0.32	0.095	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,3,5-Trimethylbenzene	0.32	U	0.32	0.10	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,3-Dichlorobenzene	0.32	U	0.32	0.12	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,4-Dichlorobenzene	0.32	U	0.32	0.072	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
1,4-Dioxane	32	U	32	3.0	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
2-Butanone (MEK)	1.6	U *	1.6	0.12	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Acetone	1.9	U	1.9	1.8	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Benzene	0.32	U	0.32	0.083	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Carbon tetrachloride	0.32	U	0.32	0.12	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Chlorobenzene	0.32	U	0.32	0.057	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Chloroform	0.32	U	0.32	0.31	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
cis-1,2-Dichloroethene	0.32	U *	0.32	0.12	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Ethylbenzene	0.32	U	0.32	0.064	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Methyl tert-butyl ether	0.32	U	0.32	0.16	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Methylene Chloride	0.64	U	0.64	0.37	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
n-Butylbenzene	0.32	U	0.32	0.095	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
N-Propylbenzene	0.32	U	0.32	0.056	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
sec-Butylbenzene	0.32	U	0.32	0.093	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
tert-Butylbenzene	0.32	U	0.32	0.089	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Tetrachloroethene	0.32	U *	0.32	0.098	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Toluene	0.32	U	0.32	0.075	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
trans-1,2-Dichloroethene	0.32	U	0.32	0.079	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Trichloroethene	0.32	U *	0.32	0.10	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Vinyl chloride	0.32	U	0.32	0.18	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1
Xylenes, Total	0.64	U	0.64	0.21	ug/Kg	☆	02/20/22 07:45	02/22/22 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		77 - 145	02/20/22 07:45	02/22/22 14:37	1
4-Bromofluorobenzene	101		70 - 139	02/20/22 07:45	02/22/22 14:37	1
Dibromofluoromethane (Surr)	97		48 - 150	02/20/22 07:45	02/22/22 14:37	1
Toluene-d8 (Surr)	110		80 - 120	02/20/22 07:45	02/22/22 14:37	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
2-Methylphenol	400	U	400	15	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
Pentachlorophenol	320	U	320	82	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
Naphthalene	400	U	400	6.9	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
Acenaphthylene	400	U	400	4.0	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
Acenaphthene	400	U	400	11	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
Dibenzofuran	400	U	400	5.6	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
Fluorene	400	U	400	5.4	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
Hexachlorobenzene	40	U	40	19	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1
Phenanthrene	53	J	400	7.0	ug/Kg	☆	02/22/22 01:52	02/22/22 10:30	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Client Sample ID: 150-PE-12

Lab Sample ID: 460-252838-1

Date Collected: 02/18/22 08:30

Matrix: Solid

Date Received: 02/18/22 20:00

Percent Solids: 82.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	400	U	400	12	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Fluoranthene	44	J	400	14	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Pyrene	58	J	400	9.9	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Benzo[a]anthracene	31	J	40	14	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Chrysene	25	J	400	6.7	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Benzo[b]fluoranthene	24	J	40	10	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Benzo[k]fluoranthene	9.5	J	40	7.8	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Benzo[a]pyrene	20	J	40	11	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	02/22/22 01:52	02/22/22 10:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	92		11 - 104	02/22/22 01:52	02/22/22 10:30	1
Phenol-d5 (Surr)	92		15 - 100	02/22/22 01:52	02/22/22 10:30	1
Terphenyl-d14 (Surr)	102		12 - 126	02/22/22 01:52	02/22/22 10:30	1
2,4,6-Tribromophenol (Surr)	99		10 - 123	02/22/22 01:52	02/22/22 10:30	1
2-Fluorophenol (Surr)	92		10 - 105	02/22/22 01:52	02/22/22 10:30	1
2-Fluorobiphenyl	91		14 - 103	02/22/22 01:52	02/22/22 10:30	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.1	U	8.1	1.4	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
4,4'-DDE	8.1	U	8.1	0.96	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
4,4'-DDT	8.1	U	8.1	1.5	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
beta-BHC	2.4	U	2.4	0.91	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Chlordane (technical)	81	U	81	20	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Endosulfan II	8.1	U	8.1	2.1	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Endrin	8.1	U	8.1	1.2	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Heptachlor	8.1	U	8.1	0.96	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Methoxychlor	8.1	U	8.1	1.9	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
Toxaphene	81	U	81	29	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	✱	02/22/22 17:03	02/23/22 05:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	107		10 - 150	02/22/22 17:03	02/23/22 05:52	1
DCB Decachlorobiphenyl	109		10 - 150	02/22/22 17:03	02/23/22 05:52	1
Tetrachloro-m-xylene	97		10 - 133	02/22/22 17:03	02/23/22 05:52	1
Tetrachloro-m-xylene	89		10 - 133	02/22/22 17:03	02/23/22 05:52	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Client Sample ID: 150-PE-12

Lab Sample ID: 460-252838-1

Date Collected: 02/18/22 08:30

Matrix: Solid

Date Received: 02/18/22 20:00

Percent Solids: 82.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Aroclor 1221	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Aroclor 1232	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Aroclor 1242	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Aroclor 1248	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Aroclor 1254	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Aroclor 1260	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Aroclor-1262	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Aroclor 1268	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1
Polychlorinated biphenyls, Total	81	U	81	22	ug/Kg	☆	02/22/22 16:51	02/23/22 09:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	119		37 - 150	02/22/22 16:51	02/23/22 09:36	1
DCB Decachlorobiphenyl	122		37 - 150	02/22/22 16:51	02/23/22 09:36	1
Tetrachloro-m-xylene	116		54 - 150	02/22/22 16:51	02/23/22 09:36	1
Tetrachloro-m-xylene	111		54 - 150	02/22/22 16:51	02/23/22 09:36	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U *	40	4.2	ug/Kg	☆	02/22/22 00:34	02/22/22 10:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	145		65 - 150	02/22/22 00:34	02/22/22 10:11	1
2,4-Dichlorophenylacetic acid	141		65 - 150	02/22/22 00:34	02/22/22 10:11	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.059	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
8:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.021	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
NEtFOSAA	0.24	U	0.24	0.027	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
NMeFOSAA	0.24	U	0.24	0.038	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorobutanesulfonic acid	0.48	U	0.48	0.44	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorobutanoic acid	0.24	U	0.24	0.029	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorodecanesulfonic acid	0.24	U	0.24	0.025	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorodecanoic acid	0.24	U	0.24	0.029	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorododecanoic acid	0.24	U	0.24	0.028	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluoroheptanesulfonic acid	0.24	U	0.24	0.024	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluoroheptanoic acid	0.24	U	0.24	0.029	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorohexanesulfonic acid	0.24	U	0.24	0.023	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorohexanoic acid	0.24	U	0.24	0.023	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorononanoic acid	0.24	U	0.24	0.028	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorooctanesulfonamide	0.24	U	0.24	0.025	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorooctanesulfonic acid	0.24	U	0.24	0.042	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorooctanoic acid	0.24	U	0.24	0.027	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluoropentanoic acid	0.24	U	0.24	0.029	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorotetradecanoic acid	0.24	U	0.24	0.029	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluorotridecanoic acid	0.24	U	0.24	0.025	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1
Perfluoroundecanoic acid	0.24	U	0.24	0.068	ug/Kg	☆	02/26/22 17:06	03/02/22 00:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	97		10 - 200	02/26/22 17:06	03/02/22 00:14	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Client Sample ID: 150-PE-12

Lab Sample ID: 460-252838-1

Date Collected: 02/18/22 08:30

Matrix: Solid

Date Received: 02/18/22 20:00

Percent Solids: 82.6

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	89		15 - 200	02/26/22 17:06	03/02/22 00:14	1
13C2 PFTeDA	81		10 - 169	02/26/22 17:06	03/02/22 00:14	1
13C3 PFBS	91		27 - 179	02/26/22 17:06	03/02/22 00:14	1
13C4 PFBA	88		28 - 153	02/26/22 17:06	03/02/22 00:14	1
13C4 PFHpA	93		10 - 178	02/26/22 17:06	03/02/22 00:14	1
13C5 PFPeA	84		24 - 161	02/26/22 17:06	03/02/22 00:14	1
13C8 PFOA	90		26 - 159	02/26/22 17:06	03/02/22 00:14	1
13C8 PFOS	87		41 - 154	02/26/22 17:06	03/02/22 00:14	1
d3-NMeFOSAA	69		10 - 178	02/26/22 17:06	03/02/22 00:14	1
d5-NEtFOSAA	73		10 - 193	02/26/22 17:06	03/02/22 00:14	1
13C3 PFHxS	95		24 - 171	02/26/22 17:06	03/02/22 00:14	1
13C5 PFHxA	89		10 - 174	02/26/22 17:06	03/02/22 00:14	1
13C6 PFDA	85		26 - 161	02/26/22 17:06	03/02/22 00:14	1
13C7 PFUnA	82		12 - 173	02/26/22 17:06	03/02/22 00:14	1
13C8 FOSA	12 *		14 - 163	02/26/22 17:06	03/02/22 00:14	1
13C2-PFDoDA	82		11 - 166	02/26/22 17:06	03/02/22 00:14	1
13C9 PFNA	86		26 - 165	02/26/22 17:06	03/02/22 00:14	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Arsenic	1.2		1.2	0.12	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Barium	20.9		2.4	0.18	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Beryllium	0.22	J	0.48	0.069	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Cadmium	1.2	U	1.2	0.14	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Chromium	7.3		2.4	0.32	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Copper	7.5		2.4	0.45	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Manganese	212		4.8	0.49	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Nickel	6.9		2.4	0.57	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Lead	7.3		0.73	0.24	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Selenium	1.5	U	1.5	0.15	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1
Zinc	25.3		9.7	3.7	mg/Kg	☆	02/26/22 09:22	02/27/22 22:09	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.020	0.0095	mg/Kg	☆	02/24/22 03:03	02/24/22 06:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	7.3		2.0	2.0	mg/Kg			02/23/22 06:49	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	☆	02/25/22 21:35	02/26/22 11:51	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	☆	02/24/22 07:35	02/24/22 13:26	1
Percent Moisture	17.4		1.0	1.0	%			02/22/22 11:51	1
Percent Solids	82.6		1.0	1.0	%			02/22/22 11:51	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Client Sample ID: 151-TB-15

Lab Sample ID: 460-252838-2

Date Collected: 02/18/22 09:30

Matrix: Water

Date Received: 02/18/22 20:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/23/22 06:05	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/23/22 06:05	1
Acetone	5.0	U	5.0	4.4	ug/L			02/23/22 06:05	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/23/22 06:05	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/23/22 06:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/23/22 06:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/23/22 06:05	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/23/22 06:05	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/23/22 06:05	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/23/22 06:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/23/22 06:05	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/23/22 06:05	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/23/22 06:05	1
Benzene	1.0	U	1.0	0.20	ug/L			02/23/22 06:05	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/23/22 06:05	1
Toluene	1.0	U	1.0	0.38	ug/L			02/23/22 06:05	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/23/22 06:05	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/23/22 06:05	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/23/22 06:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/23/22 06:05	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/23/22 06:05	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/23/22 06:05	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/23/22 06:05	1
1,4-Dioxane	50	U *	50	28	ug/L			02/23/22 06:05	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/23/22 06:05	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/23/22 06:05	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/23/22 06:05	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/23/22 06:05	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/23/22 06:05	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/23/22 06:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 123		02/23/22 06:05	1
Toluene-d8 (Surr)	103		80 - 120		02/23/22 06:05	1
4-Bromofluorobenzene	105		76 - 120		02/23/22 06:05	1
Dibromofluoromethane (Surr)	102		77 - 124		02/23/22 06:05	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-252838-1	150-PE-12	124	101	97	110
460-252838-1 MS	150-PE-12	115	107	98	120
460-252838-1 MSD	150-PE-12	116	106	97	123 *
LCS 460-829545/4	Lab Control Sample	102	90	81	98
LCS 460-829809/5	Lab Control Sample	100	87	81	101
LCSD 460-829545/5	Lab Control Sample Dup	116	98	93	111
LCSD 460-829809/6	Lab Control Sample Dup	99	88	81	99
MB 460-829545/9	Method Blank	107	88	85	99
MB 460-829809/11	Method Blank	108	98	91	113

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-252838-2	151-TB-15	89	103	105	102
LCS 460-829737/4	Lab Control Sample	86	103	100	100
LCSD 460-829737/5	Lab Control Sample Dup	92	104	103	101
MB 460-829737/8	Method Blank	89	103	104	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-252838-1	150-PE-12	92	92	102	99	92	91
460-252838-1 MS	150-PE-12	94	98	108	109	94	99
460-252838-1 MSD	150-PE-12	99	100	111	111	99	103
LCS 460-829528/2-A	Lab Control Sample	78	77	84	91	74	78
LCSD 460-829528/3-A	Lab Control Sample Dup	81	79	91	93	78	81
MB 460-829528/1-A	Method Blank	82	80	88	87	78	82

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave
FBP = 2-Fluorobiphenyl

Job ID: 460-252838-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-252838-1	150-PE-12	109	107	89	97
460-252838-1 MS	150-PE-12	85	89	79	72
460-252838-1 MSD	150-PE-12	77	77	67	67
LCS 460-829705/2-A	Lab Control Sample	81	85	75	73
LCSD 460-829705/3-A	Lab Control Sample Dup	82	85	76	73
MB 460-829705/1-A	Method Blank	83	86	66	72

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-252838-1	150-PE-12	122	119	111	116
460-252838-1 MS	150-PE-12	117	114	106	112
460-252838-1 MSD	150-PE-12	124	122	115	120
LCS 460-829696/2-A	Lab Control Sample	109	108	103	107
LCSD 460-829696/3-A	Lab Control Sample Dup	103	102	96	100
MB 460-829696/1-A	Method Blank	121	118	112	117

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1 (65-150)	DCPAA2 (65-150)
460-252838-1	150-PE-12	145	141
460-252838-1 MS	150-PE-12	143	140
460-252838-1 MSD	150-PE-12	145	148
LCS 460-829524/2-A	Lab Control Sample	148	143
LCSD 460-829524/3-A	Lab Control Sample Dup	150	143
MB 460-829524/1-A	Method Blank	149	131

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (10-200)	M282FTS (15-200)	PFTDA (10-169)	C3PFBS (27-179)	PFBA (28-153)	C4PFHA (10-178)	PFPeA (24-161)	C8PFOA (26-159)
460-252838-1	150-PE-12	97	89	81	91	88	93	84	90
460-252838-1 MS	150-PE-12	82	82	73	82	80	82	78	80
460-252838-1 MSD	150-PE-12	108	96	92	99	102	103	96	104
LCS 410-227991/2-B	Lab Control Sample	99	91	84	91	89	96	89	96
MB 410-227991/1-B	Method Blank	102	91	87	100	98	103	96	101

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C8PFOS (41-154)	d3NMFOS (10-178)	d5NEFOS (10-193)	C3PFHS (24-171)	13C5PHA (10-174)	C6PFDA (26-161)	13C7PUA (12-173)	PFOSA (14-163)
460-252838-1	150-PE-12	87	69	73	95	89	85	82	12 *
460-252838-1 MS	150-PE-12	84	55	60	84	78	81	78	11 *
460-252838-1 MSD	150-PE-12	101	74	80	105	100	103	101	6 *
LCS 410-227991/2-B	Lab Control Sample	92	55	58	101	94	92	91	80
MB 410-227991/1-B	Method Blank	100	56	62	104	97	102	102	78

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (11-166)	C9PFNA (26-165)
460-252838-1	150-PE-12	82	86
460-252838-1 MS	150-PE-12	77	82
460-252838-1 MSD	150-PE-12	98	103
LCS 410-227991/2-B	Lab Control Sample	85	85
MB 410-227991/1-B	Method Blank	92	98

Surrogate Legend

M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
PFDODA = 13C2-PFDODA
C9PFNA = 13C9 PFNA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 829809

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829256

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.32	U	6.58	5.07	*	ug/Kg	☼	77	78 - 132
1,1-Dichloroethane	0.32	U	6.58	7.07		ug/Kg	☼	107	76 - 129
1,1-Dichloroethene	0.32	U	6.58	5.03	*	ug/Kg	☼	76	77 - 132
1,2,4-Trimethylbenzene	0.32	U	6.58	6.74		ug/Kg	☼	102	79 - 120
1,2-Dichlorobenzene	0.32	U	6.58	5.97		ug/Kg	☼	91	80 - 120
1,2-Dichloroethane	0.32	U	6.58	6.60		ug/Kg	☼	100	70 - 132
1,3,5-Trimethylbenzene	0.32	U	6.58	6.65		ug/Kg	☼	101	79 - 120
1,3-Dichlorobenzene	0.32	U	6.58	6.16		ug/Kg	☼	94	80 - 120
1,4-Dichlorobenzene	0.32	U	6.58	6.16		ug/Kg	☼	94	80 - 120
1,4-Dioxane	32	U	132	127		ug/Kg	☼	96	73 - 136
2-Butanone (MEK)	1.6	U *	32.9	23.8	*	ug/Kg	☼	72	75 - 120
Acetone	1.9	U	32.9	33.6		ug/Kg	☼	102	63 - 131
Benzene	0.32	U	6.58	6.80		ug/Kg	☼	103	80 - 123
Carbon tetrachloride	0.32	U	6.58	4.59	*	ug/Kg	☼	70	72 - 136
Chlorobenzene	0.32	U	6.58	5.99		ug/Kg	☼	91	80 - 120
Chloroform	0.32	U	6.58	6.08		ug/Kg	☼	92	79 - 126
cis-1,2-Dichloroethene	0.32	U *	6.58	5.69		ug/Kg	☼	86	80 - 123
Ethylbenzene	0.32	U	6.58	5.81		ug/Kg	☼	88	80 - 120
Methyl tert-butyl ether	0.32	U	6.58	5.55		ug/Kg	☼	84	80 - 125
Methylene Chloride	0.64	U	6.58	6.81		ug/Kg	☼	103	76 - 127
m-Xylene & p-Xylene	0.32	U	6.58	5.95		ug/Kg	☼	90	80 - 120
n-Butylbenzene	0.32	U	6.58	6.73		ug/Kg	☼	102	77 - 123
N-Propylbenzene	0.32	U	6.58	6.89		ug/Kg	☼	105	78 - 120
o-Xylene	0.32	U	6.58	5.93		ug/Kg	☼	90	80 - 120
sec-Butylbenzene	0.32	U	6.58	6.15		ug/Kg	☼	93	78 - 120
tert-Butylbenzene	0.32	U	6.58	5.99		ug/Kg	☼	91	76 - 120
Tetrachloroethene	0.32	U *	6.58	4.63	*	ug/Kg	☼	70	78 - 123
Toluene	0.32	U	6.58	6.17		ug/Kg	☼	94	80 - 120
trans-1,2-Dichloroethene	0.32	U	6.58	5.44		ug/Kg	☼	83	78 - 128
Trichloroethene	0.32	U *	6.58	5.06	*	ug/Kg	☼	77	79 - 120
Vinyl chloride	0.32	U	6.58	6.09		ug/Kg	☼	93	56 - 147
Xylenes, Total	0.64	U	13.2	11.9		ug/Kg	☼	90	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	115		77 - 145
4-Bromofluorobenzene	107		70 - 139
Dibromofluoromethane (Surr)	98		48 - 150
Toluene-d8 (Surr)	120		80 - 120

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 829809

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829256

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,1,1-Trichloroethane	0.32	U	6.83	5.15	*	ug/Kg	☼	75	78 - 132	2	30
1,1-Dichloroethane	0.32	U	6.83	7.43		ug/Kg	☼	109	76 - 129	5	30
1,1-Dichloroethene	0.32	U	6.83	5.01	*	ug/Kg	☼	73	77 - 132	0	30
1,2,4-Trimethylbenzene	0.32	U	6.83	6.81		ug/Kg	☼	100	79 - 120	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 829809

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829256

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	0.32	U	6.83	6.07		ug/Kg	☼	89	80 - 120	2	30
1,2-Dichloroethane	0.32	U	6.83	6.69		ug/Kg	☼	98	70 - 132	1	30
1,3,5-Trimethylbenzene	0.32	U	6.83	6.66		ug/Kg	☼	97	79 - 120	0	30
1,3-Dichlorobenzene	0.32	U	6.83	6.12		ug/Kg	☼	89	80 - 120	1	30
1,4-Dichlorobenzene	0.32	U	6.83	6.03		ug/Kg	☼	88	80 - 120	2	30
1,4-Dioxane	32	U	137	137		ug/Kg	☼	100	73 - 136	8	30
2-Butanone (MEK)	1.6	U *	34.2	22.5	*	ug/Kg	☼	66	75 - 120	6	30
Acetone	1.9	U	34.2	31.2		ug/Kg	☼	91	63 - 131	7	30
Benzene	0.32	U	6.83	7.22		ug/Kg	☼	106	80 - 123	6	30
Carbon tetrachloride	0.32	U	6.83	4.50	*	ug/Kg	☼	66	72 - 136	2	30
Chlorobenzene	0.32	U	6.83	6.11		ug/Kg	☼	89	80 - 120	2	30
Chloroform	0.32	U	6.83	6.38		ug/Kg	☼	93	79 - 126	5	30
cis-1,2-Dichloroethene	0.32	U *	6.83	5.78		ug/Kg	☼	85	80 - 123	2	30
Ethylbenzene	0.32	U	6.83	5.92		ug/Kg	☼	87	80 - 120	2	30
Methyl tert-butyl ether	0.32	U	6.83	5.65		ug/Kg	☼	83	80 - 125	2	30
Methylene Chloride	0.64	U	6.83	6.61		ug/Kg	☼	97	76 - 127	3	30
m-Xylene & p-Xylene	0.32	U	6.83	6.03		ug/Kg	☼	88	80 - 120	1	30
n-Butylbenzene	0.32	U	6.83	6.55		ug/Kg	☼	96	77 - 123	3	30
N-Propylbenzene	0.32	U	6.83	6.73		ug/Kg	☼	98	78 - 120	2	30
o-Xylene	0.32	U	6.83	6.13		ug/Kg	☼	90	80 - 120	3	30
sec-Butylbenzene	0.32	U	6.83	5.94		ug/Kg	☼	87	78 - 120	4	30
tert-Butylbenzene	0.32	U	6.83	5.81		ug/Kg	☼	85	76 - 120	3	30
Tetrachloroethene	0.32	U *	6.83	4.73	*	ug/Kg	☼	69	78 - 123	2	30
Toluene	0.32	U	6.83	6.46		ug/Kg	☼	95	80 - 120	5	30
trans-1,2-Dichloroethene	0.32	U	6.83	5.49		ug/Kg	☼	80	78 - 128	1	30
Trichloroethene	0.32	U *	6.83	5.23	*	ug/Kg	☼	76	79 - 120	3	30
Vinyl chloride	0.32	U	6.83	7.31		ug/Kg	☼	107	56 - 147	18	30
Xylenes, Total	0.64	U	13.7	12.2		ug/Kg	☼	89	80 - 120	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		77 - 145
4-Bromofluorobenzene	106		70 - 139
Dibromofluoromethane (Surr)	97		48 - 150
Toluene-d8 (Surr)	123	*	80 - 120

Lab Sample ID: MB 460-829545/9

Matrix: Solid

Analysis Batch: 829545

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			02/22/22 08:25	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			02/22/22 08:25	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			02/22/22 08:25	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			02/22/22 08:25	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			02/22/22 08:25	1
Acetone	6.0	U	6.0	5.7	ug/Kg			02/22/22 08:25	1
Benzene	1.0	U	1.0	0.26	ug/Kg			02/22/22 08:25	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			02/22/22 08:25	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-829545/9

Matrix: Solid

Analysis Batch: 829545

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	1.0	U	1.0	0.97	ug/Kg			02/22/22 08:25	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			02/22/22 08:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			02/22/22 08:25	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			02/22/22 08:25	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			02/22/22 08:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			02/22/22 08:25	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			02/22/22 08:25	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			02/22/22 08:25	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			02/22/22 08:25	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			02/22/22 08:25	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			02/22/22 08:25	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			02/22/22 08:25	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			02/22/22 08:25	1
Toluene	1.0	U	1.0	0.23	ug/Kg			02/22/22 08:25	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			02/22/22 08:25	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/22/22 08:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			02/22/22 08:25	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			02/22/22 08:25	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			02/22/22 08:25	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/22/22 08:25	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			02/22/22 08:25	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			02/22/22 08:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 145		02/22/22 08:25	1
4-Bromofluorobenzene	88		70 - 139		02/22/22 08:25	1
Toluene-d8 (Surr)	99		80 - 120		02/22/22 08:25	1
Dibromofluoromethane (Surr)	85		48 - 150		02/22/22 08:25	1

Lab Sample ID: LCS 460-829545/4

Matrix: Solid

Analysis Batch: 829545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	16.6		ug/Kg		83	77 - 132
1,1-Dichloroethane	20.0	19.6		ug/Kg		98	76 - 129
1,2-Dichloroethane	20.0	18.0		ug/Kg		90	70 - 132
1,1,1-Trichloroethane	20.0	15.9		ug/Kg		80	78 - 132
2-Butanone (MEK)	100	59.6	*	ug/Kg		60	75 - 120
Acetone	100	80.0		ug/Kg		80	63 - 131
Benzene	20.0	19.3		ug/Kg		97	80 - 123
Carbon tetrachloride	20.0	15.2		ug/Kg		76	72 - 136
Chloroform	20.0	16.5		ug/Kg		82	79 - 126
Chlorobenzene	20.0	16.8		ug/Kg		84	80 - 120
cis-1,2-Dichloroethene	20.0	15.4	*	ug/Kg		77	80 - 123
Ethylbenzene	20.0	16.8		ug/Kg		84	80 - 120
Methylene Chloride	20.0	16.4		ug/Kg		82	76 - 127
m-Xylene & p-Xylene	20.0	16.8		ug/Kg		84	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-829545/4

Matrix: Solid

Analysis Batch: 829545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	20.0	16.4		ug/Kg		82	80 - 125
1,3-Dichlorobenzene	20.0	17.8		ug/Kg		89	80 - 120
1,4-Dichlorobenzene	20.0	17.7		ug/Kg		88	80 - 120
o-Xylene	20.0	16.4		ug/Kg		82	80 - 120
1,2-Dichlorobenzene	20.0	17.2		ug/Kg		86	80 - 120
1,4-Dioxane	400	307		ug/Kg		77	73 - 136
1,2,4-Trimethylbenzene	20.0	18.6		ug/Kg		93	79 - 120
Tetrachloroethene	20.0	15.3	*	ug/Kg		76	78 - 123
1,3,5-Trimethylbenzene	20.0	18.5		ug/Kg		93	79 - 120
Toluene	20.0	17.6		ug/Kg		88	80 - 120
N-Propylbenzene	20.0	19.9		ug/Kg		99	78 - 120
sec-Butylbenzene	20.0	18.8		ug/Kg		94	78 - 120
trans-1,2-Dichloroethene	20.0	16.0		ug/Kg		80	78 - 128
tert-Butylbenzene	20.0	17.2		ug/Kg		86	76 - 120
Trichloroethene	20.0	15.5	*	ug/Kg		77	79 - 120
n-Butylbenzene	20.0	20.8		ug/Kg		104	77 - 123
Vinyl chloride	20.0	19.2		ug/Kg		96	56 - 147
Xylenes, Total	40.0	33.2		ug/Kg		83	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 145
4-Bromofluorobenzene	90		70 - 139
Toluene-d8 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	81		48 - 150

Lab Sample ID: LCSD 460-829545/5

Matrix: Solid

Analysis Batch: 829545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	18.8		ug/Kg		94	77 - 132	12	30
1,1-Dichloroethane	20.0	22.1		ug/Kg		110	76 - 129	12	30
1,2-Dichloroethane	20.0	21.0		ug/Kg		105	70 - 132	15	30
1,1,1-Trichloroethane	20.0	17.7		ug/Kg		89	78 - 132	11	30
2-Butanone (MEK)	100	68.7	*	ug/Kg		69	75 - 120	14	30
Acetone	100	89.1		ug/Kg		89	63 - 131	11	30
Benzene	20.0	21.6		ug/Kg		108	80 - 123	11	30
Carbon tetrachloride	20.0	17.2		ug/Kg		86	72 - 136	12	30
Chloroform	20.0	18.7		ug/Kg		93	79 - 126	12	30
Chlorobenzene	20.0	19.2		ug/Kg		96	80 - 120	13	30
cis-1,2-Dichloroethene	20.0	17.5		ug/Kg		88	80 - 123	13	30
Ethylbenzene	20.0	19.3		ug/Kg		96	80 - 120	14	30
Methylene Chloride	20.0	18.7		ug/Kg		93	76 - 127	13	30
m-Xylene & p-Xylene	20.0	19.2		ug/Kg		96	80 - 120	13	30
Methyl tert-butyl ether	20.0	19.4		ug/Kg		97	80 - 125	17	30
1,3-Dichlorobenzene	20.0	20.0		ug/Kg		100	80 - 120	12	30
1,4-Dichlorobenzene	20.0	20.1		ug/Kg		100	80 - 120	13	30
o-Xylene	20.0	18.6		ug/Kg		93	80 - 120	13	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-829545/5

Matrix: Solid

Analysis Batch: 829545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	20.0	19.9		ug/Kg		100	80 - 120	15	30
1,4-Dioxane	400	406		ug/Kg		102	73 - 136	28	30
1,2,4-Trimethylbenzene	20.0	21.0		ug/Kg		105	79 - 120	12	30
Tetrachloroethene	20.0	17.2		ug/Kg		86	78 - 123	12	30
1,3,5-Trimethylbenzene	20.0	20.7		ug/Kg		103	79 - 120	11	30
Toluene	20.0	19.8		ug/Kg		99	80 - 120	12	30
N-Propylbenzene	20.0	22.1		ug/Kg		111	78 - 120	11	30
sec-Butylbenzene	20.0	20.8		ug/Kg		104	78 - 120	10	30
trans-1,2-Dichloroethene	20.0	18.7		ug/Kg		93	78 - 128	15	30
tert-Butylbenzene	20.0	19.1		ug/Kg		95	76 - 120	10	30
Trichloroethene	20.0	17.4		ug/Kg		87	79 - 120	11	30
n-Butylbenzene	20.0	23.7		ug/Kg		118	77 - 123	13	30
Vinyl chloride	20.0	21.5		ug/Kg		108	56 - 147	11	30
Xylenes, Total	40.0	37.9		ug/Kg		95	80 - 120	13	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		77 - 145
4-Bromofluorobenzene	98		70 - 139
Toluene-d8 (Surr)	111		80 - 120
Dibromofluoromethane (Surr)	93		48 - 150

Lab Sample ID: MB 460-829737/8

Matrix: Water

Analysis Batch: 829737

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			02/22/22 22:50	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			02/22/22 22:50	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			02/22/22 22:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			02/22/22 22:50	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			02/22/22 22:50	1
Acetone	5.0	U	5.0	4.4	ug/L			02/22/22 22:50	1
Benzene	1.0	U	1.0	0.20	ug/L			02/22/22 22:50	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			02/22/22 22:50	1
Chloroform	1.0	U	1.0	0.33	ug/L			02/22/22 22:50	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			02/22/22 22:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			02/22/22 22:50	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			02/22/22 22:50	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			02/22/22 22:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			02/22/22 22:50	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			02/22/22 22:50	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			02/22/22 22:50	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			02/22/22 22:50	1
1,4-Dioxane	50	U	50	28	ug/L			02/22/22 22:50	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			02/22/22 22:50	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			02/22/22 22:50	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			02/22/22 22:50	1
Toluene	1.0	U	1.0	0.38	ug/L			02/22/22 22:50	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-829737/8

Matrix: Water

Analysis Batch: 829737

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			02/22/22 22:50	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			02/22/22 22:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			02/22/22 22:50	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			02/22/22 22:50	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			02/22/22 22:50	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			02/22/22 22:50	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			02/22/22 22:50	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			02/22/22 22:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 123		02/22/22 22:50	1
4-Bromofluorobenzene	104		76 - 120		02/22/22 22:50	1
Toluene-d8 (Surr)	103		80 - 120		02/22/22 22:50	1
Dibromofluoromethane (Surr)	102		77 - 124		02/22/22 22:50	1

Lab Sample ID: LCS 460-829737/4

Matrix: Water

Analysis Batch: 829737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	19.6		ug/L		98	68 - 133
1,1-Dichloroethane	20.0	19.8		ug/L		99	73 - 130
1,2-Dichloroethane	20.0	18.1		ug/L		91	75 - 121
1,1,1-Trichloroethane	20.0	18.8		ug/L		94	68 - 128
2-Butanone (MEK)	100	107		ug/L		107	69 - 128
Acetone	100	95.9		ug/L		96	61 - 134
Benzene	20.0	20.0		ug/L		100	78 - 126
Carbon tetrachloride	20.0	18.3		ug/L		91	56 - 131
Chloroform	20.0	19.6		ug/L		98	78 - 125
Chlorobenzene	20.0	19.5		ug/L		97	80 - 119
cis-1,2-Dichloroethene	20.0	20.5		ug/L		103	78 - 121
Ethylbenzene	20.0	20.4		ug/L		102	78 - 120
Methylene Chloride	20.0	20.6		ug/L		103	74 - 127
m-Xylene & p-Xylene	20.0	20.4		ug/L		102	78 - 123
Methyl tert-butyl ether	20.0	21.3		ug/L		106	65 - 131
1,3-Dichlorobenzene	20.0	18.9		ug/L		94	80 - 121
1,4-Dichlorobenzene	20.0	18.7		ug/L		94	80 - 118
o-Xylene	20.0	20.9		ug/L		105	78 - 122
1,2-Dichlorobenzene	20.0	19.3		ug/L		96	79 - 122
1,4-Dioxane	400	567		ug/L		142	70 - 142
1,2,4-Trimethylbenzene	20.0	20.1		ug/L		100	75 - 125
Tetrachloroethene	20.0	19.6		ug/L		98	70 - 127
1,3,5-Trimethylbenzene	20.0	20.0		ug/L		100	75 - 125
Toluene	20.0	19.4		ug/L		97	78 - 119
N-Propylbenzene	20.0	19.8		ug/L		99	74 - 129
sec-Butylbenzene	20.0	19.8		ug/L		99	73 - 129
trans-1,2-Dichloroethene	20.0	20.1		ug/L		100	74 - 126
tert-Butylbenzene	20.0	14.8		ug/L		74	72 - 124

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-829737/4

Matrix: Water

Analysis Batch: 829737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	18.3		ug/L		91	71 - 121
n-Butylbenzene	20.0	19.5		ug/L		97	69 - 135
Vinyl chloride	20.0	17.0		ug/L		85	61 - 144
Xylenes, Total	40.0	41.3		ug/L		103	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		75 - 123
4-Bromofluorobenzene	100		76 - 120
Toluene-d8 (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	100		77 - 124

Lab Sample ID: LCSD 460-829737/5

Matrix: Water

Analysis Batch: 829737

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	22.0		ug/L		110	68 - 133	12	30
1,1-Dichloroethane	20.0	21.4		ug/L		107	73 - 130	8	30
1,2-Dichloroethane	20.0	19.1		ug/L		96	75 - 121	5	30
1,1,1-Trichloroethane	20.0	20.6		ug/L		103	68 - 128	9	30
2-Butanone (MEK)	100	112		ug/L		112	69 - 128	5	30
Acetone	100	105		ug/L		105	61 - 134	10	30
Benzene	20.0	21.7		ug/L		108	78 - 126	8	30
Carbon tetrachloride	20.0	19.9		ug/L		99	56 - 131	9	30
Chloroform	20.0	21.3		ug/L		107	78 - 125	8	30
Chlorobenzene	20.0	20.8		ug/L		104	80 - 119	7	30
cis-1,2-Dichloroethene	20.0	22.5		ug/L		112	78 - 121	9	30
Ethylbenzene	20.0	22.3		ug/L		112	78 - 120	9	30
Methylene Chloride	20.0	22.5		ug/L		113	74 - 127	9	30
m-Xylene & p-Xylene	20.0	22.3		ug/L		111	78 - 123	9	30
Methyl tert-butyl ether	20.0	22.8		ug/L		114	65 - 131	7	30
1,3-Dichlorobenzene	20.0	20.6		ug/L		103	80 - 121	9	30
1,4-Dichlorobenzene	20.0	20.1		ug/L		100	80 - 118	7	30
o-Xylene	20.0	22.7		ug/L		113	78 - 122	8	30
1,2-Dichlorobenzene	20.0	20.5		ug/L		102	79 - 122	6	30
1,4-Dioxane	400	628 *		ug/L		157	70 - 142	10	30
1,2,4-Trimethylbenzene	20.0	21.4		ug/L		107	75 - 125	7	30
Tetrachloroethene	20.0	21.5		ug/L		107	70 - 127	9	30
1,3,5-Trimethylbenzene	20.0	21.5		ug/L		108	75 - 125	7	30
Toluene	20.0	21.2		ug/L		106	78 - 119	9	30
N-Propylbenzene	20.0	21.3		ug/L		107	74 - 129	7	30
sec-Butylbenzene	20.0	21.1		ug/L		105	73 - 129	6	30
trans-1,2-Dichloroethene	20.0	21.9		ug/L		110	74 - 126	9	30
tert-Butylbenzene	20.0	15.7		ug/L		78	72 - 124	6	30
Trichloroethene	20.0	20.4		ug/L		102	71 - 121	11	30
n-Butylbenzene	20.0	21.3		ug/L		106	69 - 135	9	30
Vinyl chloride	20.0	18.8		ug/L		94	61 - 144	10	30
Xylenes, Total	40.0	45.0		ug/L		112	78 - 122	9	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-829737/5

Matrix: Water

Analysis Batch: 829737

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		75 - 123
4-Bromofluorobenzene	103		76 - 120
Toluene-d8 (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	101		77 - 124

Lab Sample ID: MB 460-829809/11

Matrix: Solid

Analysis Batch: 829809

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			02/23/22 11:38	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			02/23/22 11:38	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			02/23/22 11:38	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			02/23/22 11:38	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			02/23/22 11:38	1
Acetone	6.0	U	6.0	5.7	ug/Kg			02/23/22 11:38	1
Benzene	1.0	U	1.0	0.26	ug/Kg			02/23/22 11:38	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			02/23/22 11:38	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			02/23/22 11:38	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			02/23/22 11:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			02/23/22 11:38	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			02/23/22 11:38	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			02/23/22 11:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			02/23/22 11:38	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			02/23/22 11:38	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			02/23/22 11:38	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			02/23/22 11:38	1
1,4-Dioxane	100	U	100	9.2	ug/Kg			02/23/22 11:38	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			02/23/22 11:38	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			02/23/22 11:38	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			02/23/22 11:38	1
Toluene	1.0	U	1.0	0.23	ug/Kg			02/23/22 11:38	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			02/23/22 11:38	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/23/22 11:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			02/23/22 11:38	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			02/23/22 11:38	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			02/23/22 11:38	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			02/23/22 11:38	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			02/23/22 11:38	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			02/23/22 11:38	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,2-Dichloroethane-d4 (Surr)	108		77 - 145		02/23/22 11:38	1			
4-Bromofluorobenzene	98		70 - 139		02/23/22 11:38	1			
Toluene-d8 (Surr)	113		80 - 120		02/23/22 11:38	1			
Dibromofluoromethane (Surr)	91		48 - 150		02/23/22 11:38	1			

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-829809/5

Matrix: Solid

Analysis Batch: 829809

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	18.8		ug/Kg		94	77 - 132
1,1-Dichloroethane	20.0	22.4		ug/Kg		112	76 - 129
1,2-Dichloroethane	20.0	19.9		ug/Kg		99	70 - 132
1,1,1-Trichloroethane	20.0	18.0		ug/Kg		90	78 - 132
2-Butanone (MEK)	100	66.0	*	ug/Kg		66	75 - 120
Acetone	100	89.8		ug/Kg		90	63 - 131
Benzene	20.0	21.8		ug/Kg		109	80 - 123
Carbon tetrachloride	20.0	17.3		ug/Kg		87	72 - 136
Chloroform	20.0	18.4		ug/Kg		92	79 - 126
Chlorobenzene	20.0	18.7		ug/Kg		94	80 - 120
cis-1,2-Dichloroethene	20.0	17.3		ug/Kg		86	80 - 123
Ethylbenzene	20.0	18.9		ug/Kg		95	80 - 120
Methylene Chloride	20.0	18.1		ug/Kg		91	76 - 127
m-Xylene & p-Xylene	20.0	19.2		ug/Kg		96	80 - 120
Methyl tert-butyl ether	20.0	16.5		ug/Kg		82	80 - 125
1,3-Dichlorobenzene	20.0	19.4		ug/Kg		97	80 - 120
1,4-Dichlorobenzene	20.0	19.3		ug/Kg		97	80 - 120
o-Xylene	20.0	18.2		ug/Kg		91	80 - 120
1,2-Dichlorobenzene	20.0	18.8		ug/Kg		94	80 - 120
1,4-Dioxane	400	365		ug/Kg		91	73 - 136
1,2,4-Trimethylbenzene	20.0	21.0		ug/Kg		105	79 - 120
Tetrachloroethene	20.0	17.3		ug/Kg		87	78 - 123
1,3,5-Trimethylbenzene	20.0	20.8		ug/Kg		104	79 - 120
Toluene	20.0	20.1		ug/Kg		100	80 - 120
N-Propylbenzene	20.0	22.9		ug/Kg		115	78 - 120
sec-Butylbenzene	20.0	21.4		ug/Kg		107	78 - 120
trans-1,2-Dichloroethene	20.0	18.1		ug/Kg		90	78 - 128
tert-Butylbenzene	20.0	19.8		ug/Kg		99	76 - 120
Trichloroethene	20.0	17.0		ug/Kg		85	79 - 120
n-Butylbenzene	20.0	24.4		ug/Kg		122	77 - 123
Vinyl chloride	20.0	25.1		ug/Kg		126	56 - 147
Xylenes, Total	40.0	37.4		ug/Kg		94	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		77 - 145
4-Bromofluorobenzene	87		70 - 139
Toluene-d8 (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	81		48 - 150

Lab Sample ID: LCSD 460-829809/6

Matrix: Solid

Analysis Batch: 829809

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	17.8		ug/Kg		89	77 - 132	6	30
1,1-Dichloroethane	20.0	22.5		ug/Kg		112	76 - 129	0	30
1,2-Dichloroethane	20.0	20.5		ug/Kg		103	70 - 132	3	30
1,1,1-Trichloroethane	20.0	17.2		ug/Kg		86	78 - 132	5	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-829809/6

Matrix: Solid

Analysis Batch: 829809

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	100	70.1	*	ug/Kg		70	75 - 120	6	30
Acetone	100	97.3		ug/Kg		97	63 - 131	8	30
Benzene	20.0	21.6		ug/Kg		108	80 - 123	1	30
Carbon tetrachloride	20.0	16.2		ug/Kg		81	72 - 136	7	30
Chloroform	20.0	18.8		ug/Kg		94	79 - 126	2	30
Chlorobenzene	20.0	18.8		ug/Kg		94	80 - 120	0	30
cis-1,2-Dichloroethene	20.0	17.4		ug/Kg		87	80 - 123	1	30
Ethylbenzene	20.0	18.9		ug/Kg		94	80 - 120	0	30
Methylene Chloride	20.0	18.7		ug/Kg		94	76 - 127	3	30
m-Xylene & p-Xylene	20.0	19.2		ug/Kg		96	80 - 120	0	30
Methyl tert-butyl ether	20.0	17.2		ug/Kg		86	80 - 125	4	30
1,3-Dichlorobenzene	20.0	20.5		ug/Kg		102	80 - 120	6	30
1,4-Dichlorobenzene	20.0	20.2		ug/Kg		101	80 - 120	5	30
o-Xylene	20.0	18.8		ug/Kg		94	80 - 120	3	30
1,2-Dichlorobenzene	20.0	19.7		ug/Kg		98	80 - 120	5	30
1,4-Dioxane	400	679	*	ug/Kg		170	73 - 136	60	30
1,2,4-Trimethylbenzene	20.0	21.6		ug/Kg		108	79 - 120	3	30
Tetrachloroethene	20.0	16.5		ug/Kg		83	78 - 123	5	30
1,3,5-Trimethylbenzene	20.0	21.2		ug/Kg		106	79 - 120	2	30
Toluene	20.0	19.6		ug/Kg		98	80 - 120	2	30
N-Propylbenzene	20.0	23.0		ug/Kg		115	78 - 120	0	30
sec-Butylbenzene	20.0	21.2		ug/Kg		106	78 - 120	1	30
trans-1,2-Dichloroethene	20.0	17.6		ug/Kg		88	78 - 128	3	30
tert-Butylbenzene	20.0	19.7		ug/Kg		99	76 - 120	0	30
Trichloroethene	20.0	16.8		ug/Kg		84	79 - 120	1	30
n-Butylbenzene	20.0	24.0		ug/Kg		120	77 - 123	2	30
Vinyl chloride	20.0	21.2		ug/Kg		106	56 - 147	17	30
Xylenes, Total	40.0	38.0		ug/Kg		95	80 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		77 - 145
4-Bromofluorobenzene	88		70 - 139
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	81		48 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-829528/1-A

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
2-Methylphenol	330	U	330	12	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Pentachlorophenol	270	U	270	68	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Naphthalene	330	U	330	5.7	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Acenaphthylene	330	U	330	3.3	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Acenaphthene	330	U	330	9.4	ug/Kg		02/22/22 01:52	02/22/22 09:21	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-829528/1-A

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	330	U	330	4.6	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Fluorene	330	U	330	4.5	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Hexachlorobenzene	33	U	33	16	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Phenanthrene	330	U	330	5.8	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Anthracene	330	U	330	10	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Fluoranthene	330	U	330	12	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Pyrene	330	U	330	8.2	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Chrysene	330	U	330	5.6	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		02/22/22 01:52	02/22/22 09:21	1
1,4-Dioxane	33	U	33	29	ug/Kg		02/22/22 01:52	02/22/22 09:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	82		11 - 104	02/22/22 01:52	02/22/22 09:21	1
Phenol-d5 (Surr)	80		15 - 100	02/22/22 01:52	02/22/22 09:21	1
Terphenyl-d14 (Surr)	88		12 - 126	02/22/22 01:52	02/22/22 09:21	1
2,4,6-Tribromophenol (Surr)	87		10 - 123	02/22/22 01:52	02/22/22 09:21	1
2-Fluorophenol (Surr)	78		10 - 105	02/22/22 01:52	02/22/22 09:21	1
2-Fluorobiphenyl	82		14 - 103	02/22/22 01:52	02/22/22 09:21	1

Lab Sample ID: LCS 460-829528/2-A

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	3330	2780		ug/Kg		83	63 - 110
2-Methylphenol	3330	2800		ug/Kg		84	63 - 108
3 & 4 Methylphenol	3330	2750		ug/Kg		83	61 - 108
Pentachlorophenol	6670	5140		ug/Kg		77	44 - 126
Naphthalene	3330	2790		ug/Kg		84	63 - 106
Acenaphthylene	3330	2770		ug/Kg		83	64 - 108
Acenaphthene	3330	2830		ug/Kg		85	53 - 110
Dibenzofuran	3330	2970		ug/Kg		89	65 - 108
Fluorene	3330	3080		ug/Kg		92	65 - 109
Hexachlorobenzene	3330	2950		ug/Kg		89	61 - 113
Phenanthrene	3330	2850		ug/Kg		85	66 - 112
Anthracene	3330	2880		ug/Kg		86	67 - 114
Fluoranthene	3330	2850		ug/Kg		86	61 - 106
Pyrene	3330	2970		ug/Kg		89	61 - 111
Benzo[a]anthracene	3330	2870		ug/Kg		86	67 - 115
Chrysene	3330	2890		ug/Kg		87	71 - 122
Benzo[b]fluoranthene	3330	2900		ug/Kg		87	70 - 125
Benzo[k]fluoranthene	3330	3210		ug/Kg		96	67 - 115

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-829528/2-A

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	3330	2730		ug/Kg		82	73 - 123
Indeno[1,2,3-cd]pyrene	3330	3130		ug/Kg		94	62 - 121
Dibenz(a,h)anthracene	3330	3050		ug/Kg		91	66 - 119
Benzo[g,h,i]perylene	3330	2890		ug/Kg		87	61 - 113
1,4-Dioxane	3330	2510		ug/Kg		75	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	78		11 - 104
Phenol-d5 (Surr)	77		15 - 100
Terphenyl-d14 (Surr)	84		12 - 126
2,4,6-Tribromophenol (Surr)	91		10 - 123
2-Fluorophenol (Surr)	74		10 - 105
2-Fluorobiphenyl	78		14 - 103

Lab Sample ID: LCSD 460-829528/3-A

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 829528

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	3330	2940		ug/Kg		88	63 - 110	6	30
2-Methylphenol	3330	2900		ug/Kg		87	63 - 108	4	30
3 & 4 Methylphenol	3330	2840		ug/Kg		85	61 - 108	3	30
Pentachlorophenol	6670	5500		ug/Kg		82	44 - 126	7	30
Naphthalene	3330	2900		ug/Kg		87	63 - 106	4	30
Acenaphthylene	3330	2870		ug/Kg		86	64 - 108	3	30
Acenaphthene	3330	2930		ug/Kg		88	53 - 110	3	30
Dibenzofuran	3330	3010		ug/Kg		90	65 - 108	1	30
Fluorene	3330	3130		ug/Kg		94	65 - 109	2	30
Hexachlorobenzene	3330	3100		ug/Kg		93	61 - 113	5	30
Phenanthrene	3330	3010		ug/Kg		90	66 - 112	5	30
Anthracene	3330	3020		ug/Kg		90	67 - 114	5	30
Fluoranthene	3330	2980		ug/Kg		89	61 - 106	4	30
Pyrene	3330	3210		ug/Kg		96	61 - 111	8	30
Benzo[a]anthracene	3330	3030		ug/Kg		91	67 - 115	5	30
Chrysene	3330	3090		ug/Kg		93	71 - 122	7	30
Benzo[b]fluoranthene	3330	3300		ug/Kg		99	70 - 125	13	30
Benzo[k]fluoranthene	3330	3070		ug/Kg		92	67 - 115	4	30
Benzo[a]pyrene	3330	2860		ug/Kg		86	73 - 123	4	30
Indeno[1,2,3-cd]pyrene	3330	3330		ug/Kg		100	62 - 121	6	30
Dibenz(a,h)anthracene	3330	3260		ug/Kg		98	66 - 119	7	30
Benzo[g,h,i]perylene	3330	3080		ug/Kg		92	61 - 113	6	30
1,4-Dioxane	3330	2620		ug/Kg		79	31 - 81	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	81		11 - 104
Phenol-d5 (Surr)	79		15 - 100
Terphenyl-d14 (Surr)	91		12 - 126
2,4,6-Tribromophenol (Surr)	93		10 - 123

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-829528/3-A

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 829528

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorophenol (Surr)	78		10 - 105
2-Fluorobiphenyl	81		14 - 103

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829528

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	400	U	4020	4250		ug/Kg	☼	106	63 - 110
2-Methylphenol	400	U	4020	4250		ug/Kg	☼	106	63 - 108
3 & 4 Methylphenol	400	U	4020	4170		ug/Kg	☼	104	61 - 108
Pentachlorophenol	320	U	8050	7850		ug/Kg	☼	98	44 - 126
Naphthalene	400	U	4020	4110		ug/Kg	☼	102	63 - 106
Acenaphthylene	400	U	4020	4190		ug/Kg	☼	104	64 - 108
Acenaphthene	400	U	4020	4270		ug/Kg	☼	106	53 - 110
Dibenzofuran	400	U	4020	4440	*	ug/Kg	☼	110	65 - 108
Fluorene	400	U	4020	4490	*	ug/Kg	☼	112	65 - 109
Hexachlorobenzene	40	U	4020	4500		ug/Kg	☼	112	61 - 113
Phenanthrene	53	J	4020	4350		ug/Kg	☼	107	66 - 112
Anthracene	400	U	4020	4320		ug/Kg	☼	107	67 - 114
Fluoranthene	44	J	4020	4140		ug/Kg	☼	102	61 - 106
Pyrene	58	J	4020	4790	*	ug/Kg	☼	118	61 - 111
Benzo[a]anthracene	31	J	4020	4320		ug/Kg	☼	107	67 - 115
Chrysene	25	J	4020	4250		ug/Kg	☼	105	71 - 122
Benzo[b]fluoranthene	24	J	4020	4530		ug/Kg	☼	112	70 - 125
Benzo[k]fluoranthene	9.5	J	4020	4670	*	ug/Kg	☼	116	67 - 115
Benzo[a]pyrene	20	J	4020	4160		ug/Kg	☼	103	73 - 123
Indeno[1,2,3-cd]pyrene	40	U	4020	4900	*	ug/Kg	☼	122	62 - 121
Dibenz(a,h)anthracene	40	U	4020	4670		ug/Kg	☼	116	66 - 119
Benzo[g,h,i]perylene	400	U	4020	4460		ug/Kg	☼	111	61 - 113
1,4-Dioxane	40	U	4020	3140		ug/Kg	☼	78	31 - 81

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5 (Surr)	94		11 - 104
Phenol-d5 (Surr)	98		15 - 100
Terphenyl-d14 (Surr)	108		12 - 126
2,4,6-Tribromophenol (Surr)	109		10 - 123
2-Fluorophenol (Surr)	94		10 - 105
2-Fluorobiphenyl	99		14 - 103

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829528

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	400	U	4030	4490	*	ug/Kg	☼	112	63 - 110	5	30
2-Methylphenol	400	U	4030	4420	*	ug/Kg	☼	110	63 - 108	4	30
3 & 4 Methylphenol	400	U	4030	4210		ug/Kg	☼	105	61 - 108	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 829582

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829528

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	320	U	8050	8480		ug/Kg	☼	105	44 - 126	8	30
Naphthalene	400	U	4030	4330	*	ug/Kg	☼	108	63 - 106	5	30
Acenaphthylene	400	U	4030	4350		ug/Kg	☼	108	64 - 108	4	30
Acenaphthene	400	U	4030	4450	*	ug/Kg	☼	111	53 - 110	4	30
Dibenzofuran	400	U	4030	4620	*	ug/Kg	☼	115	65 - 108	4	30
Fluorene	400	U	4030	4720	*	ug/Kg	☼	117	65 - 109	5	30
Hexachlorobenzene	40	U	4030	4780	*	ug/Kg	☼	119	61 - 113	6	30
Phenanthrene	53	J	4030	4550		ug/Kg	☼	112	66 - 112	4	30
Anthracene	400	U	4030	4580		ug/Kg	☼	114	67 - 114	6	30
Fluoranthene	44	J	4030	4290		ug/Kg	☼	106	61 - 106	4	30
Pyrene	58	J	4030	4970	*	ug/Kg	☼	122	61 - 111	4	30
Benzo[a]anthracene	31	J	4030	4520		ug/Kg	☼	112	67 - 115	5	30
Chrysene	25	J	4030	4480		ug/Kg	☼	111	71 - 122	5	30
Benzo[b]fluoranthene	24	J	4030	4940		ug/Kg	☼	122	70 - 125	9	30
Benzo[k]fluoranthene	9.5	J	4030	4730	*	ug/Kg	☼	117	67 - 115	1	30
Benzo[a]pyrene	20	J	4030	4250		ug/Kg	☼	105	73 - 123	2	30
Indeno[1,2,3-cd]pyrene	40	U	4030	4760		ug/Kg	☼	118	62 - 121	3	30
Dibenz(a,h)anthracene	40	U	4030	4660		ug/Kg	☼	116	66 - 119	0	30
Benzo[g,h,i]perylene	400	U	4030	4420		ug/Kg	☼	110	61 - 113	1	30
1,4-Dioxane	40	U	4030	3570	*	ug/Kg	☼	89	31 - 81	13	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5 (Surr)	99		11 - 104								
Phenol-d5 (Surr)	100		15 - 100								
Terphenyl-d14 (Surr)	111		12 - 126								
2,4,6-Tribromophenol (Surr)	111		10 - 123								
2-Fluorophenol (Surr)	99		10 - 105								
2-Fluorobiphenyl	103		14 - 103								

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-829705/1-A

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Chlordane (technical)	67	U	67	16	ug/Kg		02/22/22 17:03	02/23/22 04:51	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-829705/1-A

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	67	U	67	16	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endrin	6.7	U	6.7	0.96	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Toxaphene	67	U	67	24	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
Toxaphene	67	U	67	24	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/22/22 17:03	02/23/22 04:51	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		02/22/22 17:03	02/23/22 04:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		10 - 150	02/22/22 17:03	02/23/22 04:51	1
DCB Decachlorobiphenyl	83		10 - 150	02/22/22 17:03	02/23/22 04:51	1
Tetrachloro-m-xylene	72		10 - 133	02/22/22 17:03	02/23/22 04:51	1
Tetrachloro-m-xylene	66		10 - 133	02/22/22 17:03	02/23/22 04:51	1

Lab Sample ID: LCS 460-829705/2-A

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	118		ug/Kg		88	70 - 140
4,4'-DDD	133	134		ug/Kg		100	70 - 140
4,4'-DDE	133	126		ug/Kg		95	71 - 137
4,4'-DDE	133	127		ug/Kg		95	71 - 137
4,4'-DDT	133	124		ug/Kg		93	63 - 131
4,4'-DDT	133	140		ug/Kg		105	63 - 131
Aldrin	133	131		ug/Kg		98	74 - 140

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-829705/2-A

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	133	127		ug/Kg		95	74 - 140
alpha-BHC	133	130		ug/Kg		98	72 - 142
alpha-BHC	133	128		ug/Kg		96	72 - 142
beta-BHC	133	134		ug/Kg		101	65 - 137
beta-BHC	133	137		ug/Kg		102	65 - 137
delta-BHC	133	116		ug/Kg		87	70 - 143
delta-BHC	133	123		ug/Kg		92	70 - 143
Dieldrin	133	134		ug/Kg		100	70 - 135
Dieldrin	133	130		ug/Kg		97	70 - 135
Endosulfan I	133	127		ug/Kg		96	68 - 135
Endosulfan I	133	126		ug/Kg		94	68 - 135
Endosulfan II	133	137		ug/Kg		103	64 - 130
Endosulfan II	133	135		ug/Kg		102	64 - 130
Endosulfan sulfate	133	130		ug/Kg		97	66 - 143
Endosulfan sulfate	133	143		ug/Kg		108	66 - 143
Endrin	133	131		ug/Kg		98	68 - 136
Endrin	133	133		ug/Kg		100	68 - 136
Endrin aldehyde	133	130		ug/Kg		97	68 - 132
Endrin aldehyde	133	129		ug/Kg		96	68 - 132
Endrin ketone	133	120		ug/Kg		90	60 - 150
Endrin ketone	133	127		ug/Kg		95	60 - 150
gamma-BHC (Lindane)	133	131		ug/Kg		98	70 - 134
gamma-BHC (Lindane)	133	124		ug/Kg		93	70 - 134
Heptachlor	133	134		ug/Kg		101	69 - 134
Heptachlor	133	134		ug/Kg		101	69 - 134
Heptachlor epoxide	133	131		ug/Kg		98	70 - 135
Heptachlor epoxide	133	126		ug/Kg		94	70 - 135
Methoxychlor	133	102		ug/Kg		76	57 - 135
Methoxychlor	133	130		ug/Kg		98	57 - 135
cis-Chlordane	133	130		ug/Kg		98	70 - 136
cis-Chlordane	133	128		ug/Kg		96	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	85		10 - 150
DCB Decachlorobiphenyl	81		10 - 150
Tetrachloro-m-xylene	73		10 - 133
Tetrachloro-m-xylene	75		10 - 133

Lab Sample ID: LCSD 460-829705/3-A

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 829705

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	133	115		ug/Kg		86	70 - 140	2	30
4,4'-DDD	133	132		ug/Kg		99	70 - 140	1	30
4,4'-DDE	133	123		ug/Kg		92	71 - 137	3	30
4,4'-DDE	133	124		ug/Kg		93	71 - 137	3	30
4,4'-DDT	133	119		ug/Kg		89	63 - 131	4	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-829705/3-A

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 829705

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDT	133	136		ug/Kg		102	63 - 131	3	30
Aldrin	133	127		ug/Kg		95	74 - 140	3	30
Aldrin	133	124		ug/Kg		93	74 - 140	2	30
alpha-BHC	133	127		ug/Kg		95	72 - 142	3	30
alpha-BHC	133	125		ug/Kg		94	72 - 142	2	30
beta-BHC	133	118		ug/Kg		89	65 - 137	13	30
beta-BHC	133	133		ug/Kg		100	65 - 137	2	30
delta-BHC	133	114		ug/Kg		86	70 - 143	1	30
delta-BHC	133	120		ug/Kg		90	70 - 143	3	30
Dieldrin	133	130		ug/Kg		97	70 - 135	3	30
Dieldrin	133	126		ug/Kg		94	70 - 135	3	30
Endosulfan I	133	120		ug/Kg		90	68 - 135	6	30
Endosulfan I	133	122		ug/Kg		91	68 - 135	3	30
Endosulfan II	133	133		ug/Kg		100	64 - 130	3	30
Endosulfan II	133	133		ug/Kg		100	64 - 130	2	30
Endosulfan sulfate	133	126		ug/Kg		95	66 - 143	3	30
Endosulfan sulfate	133	141		ug/Kg		106	66 - 143	2	30
Endrin	133	126		ug/Kg		94	68 - 136	4	30
Endrin	133	131		ug/Kg		98	68 - 136	2	30
Endrin aldehyde	133	125		ug/Kg		93	68 - 132	4	30
Endrin aldehyde	133	126		ug/Kg		94	68 - 132	2	30
Endrin ketone	133	116		ug/Kg		87	60 - 150	4	30
Endrin ketone	133	124		ug/Kg		93	60 - 150	3	30
gamma-BHC (Lindane)	133	123		ug/Kg		92	70 - 134	6	30
gamma-BHC (Lindane)	133	121		ug/Kg		91	70 - 134	3	30
Heptachlor	133	131		ug/Kg		98	69 - 134	3	30
Heptachlor	133	132		ug/Kg		99	69 - 134	2	30
Heptachlor epoxide	133	127		ug/Kg		96	70 - 135	3	30
Heptachlor epoxide	133	123		ug/Kg		92	70 - 135	2	30
Methoxychlor	133	96.4		ug/Kg		72	57 - 135	6	30
Methoxychlor	133	128		ug/Kg		96	57 - 135	2	30
cis-Chlordane	133	123		ug/Kg		92	70 - 136	5	30
cis-Chlordane	133	124		ug/Kg		93	70 - 136	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	85		10 - 150
DCB Decachlorobiphenyl	82		10 - 150
Tetrachloro-m-xylene	73		10 - 133
Tetrachloro-m-xylene	76		10 - 133

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829705

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	8.1	U	161	141		ug/Kg	✱	88	70 - 140
4,4'-DDD	8.1	U	161	156		ug/Kg	✱	97	70 - 140
4,4'-DDE	8.1	U	161	143		ug/Kg	✱	89	71 - 137

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829705

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDE	8.1	U	161	142		ug/Kg	✱	88	71 - 137
4,4'-DDT	8.1	U	161	139		ug/Kg	✱	86	63 - 131
4,4'-DDT	8.1	U	161	164		ug/Kg	✱	102	63 - 131
Aldrin	8.1	U	161	148		ug/Kg	✱	92	74 - 140
Aldrin	8.1	U	161	148		ug/Kg	✱	92	74 - 140
alpha-BHC	2.4	U	161	148		ug/Kg	✱	92	72 - 142
alpha-BHC	2.4	U	161	149		ug/Kg	✱	92	72 - 142
beta-BHC	2.4	U	161	136		ug/Kg	✱	85	65 - 137
beta-BHC	2.4	U	161	143		ug/Kg	✱	89	65 - 137
delta-BHC	2.4	U	161	131		ug/Kg	✱	81	70 - 143
delta-BHC	2.4	U	161	142		ug/Kg	✱	88	70 - 143
Dieldrin	2.4	U	161	152		ug/Kg	✱	94	70 - 135
Dieldrin	2.4	U	161	154		ug/Kg	✱	95	70 - 135
Endosulfan I	8.1	U	161	140		ug/Kg	✱	87	68 - 135
Endosulfan I	8.1	U	161	150		ug/Kg	✱	93	68 - 135
Endosulfan II	8.1	U	161	155		ug/Kg	✱	96	64 - 130
Endosulfan II	8.1	U	161	159		ug/Kg	✱	99	64 - 130
Endosulfan sulfate	8.1	U	161	148		ug/Kg	✱	92	66 - 143
Endosulfan sulfate	8.1	U	161	162		ug/Kg	✱	101	66 - 143
Endrin	8.1	U	161	146		ug/Kg	✱	90	68 - 136
Endrin	8.1	U	161	159		ug/Kg	✱	98	68 - 136
Endrin aldehyde	8.1	U	161	145		ug/Kg	✱	90	68 - 132
Endrin aldehyde	8.1	U	161	148		ug/Kg	✱	92	68 - 132
Endrin ketone	8.1	U	161	136		ug/Kg	✱	84	60 - 150
Endrin ketone	8.1	U	161	152		ug/Kg	✱	94	60 - 150
gamma-BHC (Lindane)	2.4	U	161	145		ug/Kg	✱	90	70 - 134
gamma-BHC (Lindane)	2.4	U	161	145		ug/Kg	✱	90	70 - 134
Heptachlor	8.1	U	161	152		ug/Kg	✱	94	69 - 134
Heptachlor	8.1	U	161	158		ug/Kg	✱	98	69 - 134
Heptachlor epoxide	8.1	U	161	150		ug/Kg	✱	93	70 - 135
Heptachlor epoxide	8.1	U	161	149		ug/Kg	✱	92	70 - 135
Methoxychlor	8.1	U	161	116		ug/Kg	✱	72	57 - 135
Methoxychlor	8.1	U	161	158		ug/Kg	✱	98	57 - 135
cis-Chlordane	8.1	U	161	143		ug/Kg	✱	89	70 - 136
cis-Chlordane	8.1	U	161	148		ug/Kg	✱	92	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	89		10 - 150
DCB Decachlorobiphenyl	85		10 - 150
Tetrachloro-m-xylene	72		10 - 133
Tetrachloro-m-xylene	79		10 - 133

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829705

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	8.1	U	161	125		ug/Kg	✱	78	70 - 140	12	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 829767

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829705

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	8.1	U	161	140		ug/Kg	✱	87	70 - 140	11	30
4,4'-DDE	8.1	U	161	130		ug/Kg	✱	81	71 - 137	10	30
4,4'-DDE	8.1	U	161	131		ug/Kg	✱	81	71 - 137	8	30
4,4'-DDT	8.1	U	161	125		ug/Kg	✱	78	63 - 131	10	30
4,4'-DDT	8.1	U	161	143		ug/Kg	✱	89	63 - 131	14	30
Aldrin	8.1	U	161	133		ug/Kg	✱	83	74 - 140	11	30
Aldrin	8.1	U	161	130		ug/Kg	✱	81	74 - 140	13	30
alpha-BHC	2.4	U	161	130		ug/Kg	✱	81	72 - 142	13	30
alpha-BHC	2.4	U	161	129		ug/Kg	✱	80	72 - 142	14	30
beta-BHC	2.4	U	161	123		ug/Kg	✱	77	65 - 137	10	30
beta-BHC	2.4	U	161	135		ug/Kg	✱	84	65 - 137	6	30
delta-BHC	2.4	U	161	124		ug/Kg	✱	77	70 - 143	6	30
delta-BHC	2.4	U	161	124		ug/Kg	✱	77	70 - 143	13	30
Dieldrin	2.4	U	161	136		ug/Kg	✱	85	70 - 135	11	30
Dieldrin	2.4	U	161	134		ug/Kg	✱	84	70 - 135	13	30
Endosulfan I	8.1	U	161	127		ug/Kg	✱	79	68 - 135	10	30
Endosulfan I	8.1	U	161	130		ug/Kg	✱	81	68 - 135	14	30
Endosulfan II	8.1	U	161	140		ug/Kg	✱	87	64 - 130	11	30
Endosulfan II	8.1	U	161	140		ug/Kg	✱	87	64 - 130	13	30
Endosulfan sulfate	8.1	U	161	133		ug/Kg	✱	83	66 - 143	11	30
Endosulfan sulfate	8.1	U	161	149		ug/Kg	✱	93	66 - 143	8	30
Endrin	8.1	U	161	132		ug/Kg	✱	82	68 - 136	10	30
Endrin	8.1	U	161	137		ug/Kg	✱	85	68 - 136	15	30
Endrin aldehyde	8.1	U	161	133		ug/Kg	✱	83	68 - 132	9	30
Endrin aldehyde	8.1	U	161	131		ug/Kg	✱	82	68 - 132	12	30
Endrin ketone	8.1	U	161	127		ug/Kg	✱	79	60 - 150	6	30
Endrin ketone	8.1	U	161	129		ug/Kg	✱	80	60 - 150	16	30
gamma-BHC (Lindane)	2.4	U	161	128		ug/Kg	✱	80	70 - 134	12	30
gamma-BHC (Lindane)	2.4	U	161	125		ug/Kg	✱	78	70 - 134	15	30
Heptachlor	8.1	U	161	135		ug/Kg	✱	84	69 - 134	12	30
Heptachlor	8.1	U	161	138		ug/Kg	✱	86	69 - 134	13	30
Heptachlor epoxide	8.1	U	161	134		ug/Kg	✱	83	70 - 135	11	30
Heptachlor epoxide	8.1	U	161	130		ug/Kg	✱	81	70 - 135	14	30
Methoxychlor	8.1	U	161	106		ug/Kg	✱	66	57 - 135	9	30
Methoxychlor	8.1	U	161	134		ug/Kg	✱	84	57 - 135	16	30
cis-Chlordane	8.1	U	161	130		ug/Kg	✱	81	70 - 136	10	30
cis-Chlordane	8.1	U	161	133		ug/Kg	✱	83	70 - 136	11	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	77		10 - 150
DCB Decachlorobiphenyl	77		10 - 150
Tetrachloro-m-xylene	67		10 - 133
Tetrachloro-m-xylene	67		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-829696/1-A

Matrix: Solid

Analysis Batch: 829784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829696

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1016	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1221	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1221	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1232	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1232	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1242	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1242	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1248	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1248	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1254	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1254	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1260	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1260	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor-1262	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor-1262	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1268	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Aroclor 1268	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		02/22/22 16:51	02/23/22 06:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	118		37 - 150	02/22/22 16:51	02/23/22 06:33	1
DCB Decachlorobiphenyl	121		37 - 150	02/22/22 16:51	02/23/22 06:33	1
Tetrachloro-m-xylene	117		54 - 150	02/22/22 16:51	02/23/22 06:33	1
Tetrachloro-m-xylene	112		54 - 150	02/22/22 16:51	02/23/22 06:33	1

Lab Sample ID: LCS 460-829696/2-A

Matrix: Solid

Analysis Batch: 829784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829696

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	369		ug/Kg		111	65 - 133
Aroclor 1016	333	356		ug/Kg		107	65 - 133
Aroclor 1260	333	367		ug/Kg		110	71 - 150
Aroclor 1260	333	352		ug/Kg		106	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	108		37 - 150
DCB Decachlorobiphenyl	109		37 - 150
Tetrachloro-m-xylene	107		54 - 150
Tetrachloro-m-xylene	103		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-829696/3-A

Matrix: Solid

Analysis Batch: 829784

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 829696

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	365		ug/Kg		109	65 - 133	1	30
Aroclor 1016	333	355		ug/Kg		107	65 - 133	0	30
Aroclor 1260	333	373		ug/Kg		112	71 - 150	2	30
Aroclor 1260	333	352		ug/Kg		106	71 - 150	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	102		37 - 150
DCB Decachlorobiphenyl	103		37 - 150
Tetrachloro-m-xylene	100		54 - 150
Tetrachloro-m-xylene	96		54 - 150

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 829784

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829696

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	81	U	402	484		ug/Kg	⊛	120	65 - 133
Aroclor 1016	81	U	402	458		ug/Kg	⊛	114	65 - 133
Aroclor 1260	81	U	402	489		ug/Kg	⊛	121	71 - 150
Aroclor 1260	81	U	402	436		ug/Kg	⊛	108	71 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	114		37 - 150
DCB Decachlorobiphenyl	117		37 - 150
Tetrachloro-m-xylene	112		54 - 150
Tetrachloro-m-xylene	106		54 - 150

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 829784

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829696

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	81	U	401	518		ug/Kg	⊛	129	65 - 133	7	30
Aroclor 1016	81	U	401	494		ug/Kg	⊛	123	65 - 133	8	30
Aroclor 1260	81	U	401	524		ug/Kg	⊛	131	71 - 150	7	30
Aroclor 1260	81	U	401	475		ug/Kg	⊛	118	71 - 150	9	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	122		37 - 150
DCB Decachlorobiphenyl	124		37 - 150
Tetrachloro-m-xylene	120		54 - 150
Tetrachloro-m-xylene	115		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-829524/1-A

Matrix: Solid

Analysis Batch: 829567

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 829524

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/22/22 00:34	02/22/22 09:08	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		02/22/22 00:34	02/22/22 09:08	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	149		65 - 150				02/22/22 00:34	02/22/22 09:08	1
2,4-Dichlorophenylacetic acid	131		65 - 150				02/22/22 00:34	02/22/22 09:08	1

Lab Sample ID: LCS 460-829524/2-A

Matrix: Solid

Analysis Batch: 829567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 829524

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	41.7	66.4	*	ug/Kg		159	58 - 150
Silvex (2,4,5-TP)	41.7	61.7		ug/Kg		148	58 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	148		65 - 150				
2,4-Dichlorophenylacetic acid	143		65 - 150				

Lab Sample ID: LCSD 460-829524/3-A

Matrix: Solid

Analysis Batch: 829567

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 829524

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	41.7	64.5	*	ug/Kg		155	58 - 150	3	30
Silvex (2,4,5-TP)	41.7	61.9		ug/Kg		149	58 - 150	0	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	150		65 - 150						
2,4-Dichlorophenylacetic acid	143		65 - 150						

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 829567

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829524

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	40	U	50.3	81.1	*	ug/Kg	☼	161	58 - 150
Silvex (2,4,5-TP)	40	U *	50.3	83.5	*	ug/Kg	☼	166	58 - 150
Surrogate	MS %Recovery	MS Qualifier	Limits						
2,4-Dichlorophenylacetic acid	143		65 - 150						
2,4-Dichlorophenylacetic acid	140		65 - 150						

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 829567

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 829524

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	40	U	50.3	79.9	*	ug/Kg	☼	159	58 - 150	2	30
Silvex (2,4,5-TP)	40	U *	50.3	80.1	*	ug/Kg	☼	159	58 - 150	4	30
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
2,4-Dichlorophenylacetic acid	145		65 - 150								
2,4-Dichlorophenylacetic acid	148		65 - 150								

Method: 537 (Modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-227991/1-B

Matrix: Solid

Analysis Batch: 228638

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 227991

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
6:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.049	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
8:2 Fluorotelomer sulfonic acid	0.20	U	0.20	0.017	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
NEtFOSAA	0.20	U	0.20	0.022	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
NMeFOSAA	0.20	U	0.20	0.031	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorobutanesulfonic acid	0.40	U	0.40	0.36	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorobutanoic acid	0.20	U	0.20	0.024	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorodecanesulfonic acid	0.20	U	0.20	0.021	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorodecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorododecanoic acid	0.20	U	0.20	0.023	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluoroheptanesulfonic acid	0.20	U	0.20	0.020	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluoroheptanoic acid	0.20	U	0.20	0.024	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorohexanesulfonic acid	0.20	U	0.20	0.019	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorohexanoic acid	0.20	U	0.20	0.019	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorononanoic acid	0.20	U	0.20	0.023	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorooctanesulfonamide	0.20	U	0.20	0.021	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorooctanesulfonic acid	0.20	U	0.20	0.035	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorooctanoic acid	0.20	U	0.20	0.022	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluoropentanoic acid	0.20	U	0.20	0.024	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorotetradecanoic acid	0.20	U	0.20	0.024	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluorotridecanoic acid	0.20	U	0.20	0.021	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
Perfluoroundecanoic acid	0.20	U	0.20	0.056	ug/Kg		02/26/22 17:06	03/01/22 23:18	1
MB MB									
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-6:2 FTS	102		10 - 200				02/26/22 17:06	03/01/22 23:18	1
M2-8:2 FTS	91		15 - 200				02/26/22 17:06	03/01/22 23:18	1
13C2 PFTeDA	87		10 - 169				02/26/22 17:06	03/01/22 23:18	1
13C3 PFBS	100		27 - 179				02/26/22 17:06	03/01/22 23:18	1
13C4 PFBA	98		28 - 153				02/26/22 17:06	03/01/22 23:18	1
13C4 PFHpA	103		10 - 178				02/26/22 17:06	03/01/22 23:18	1
13C5 PFPeA	96		24 - 161				02/26/22 17:06	03/01/22 23:18	1
13C8 PFOA	101		26 - 159				02/26/22 17:06	03/01/22 23:18	1
13C8 PFOS	100		41 - 154				02/26/22 17:06	03/01/22 23:18	1
d3-NMeFOSAA	56		10 - 178				02/26/22 17:06	03/01/22 23:18	1
d5-NEtFOSAA	62		10 - 193				02/26/22 17:06	03/01/22 23:18	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-227991/1-B

Matrix: Solid

Analysis Batch: 228638

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 227991

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	104		24 - 171	02/26/22 17:06	03/01/22 23:18	1
13C5 PFHxA	97		10 - 174	02/26/22 17:06	03/01/22 23:18	1
13C6 PFDA	102		26 - 161	02/26/22 17:06	03/01/22 23:18	1
13C7 PFUnA	102		12 - 173	02/26/22 17:06	03/01/22 23:18	1
13C8 FOSA	78		14 - 163	02/26/22 17:06	03/01/22 23:18	1
13C2-PFDoDA	92		11 - 166	02/26/22 17:06	03/01/22 23:18	1
13C9 PFNA	98		26 - 165	02/26/22 17:06	03/01/22 23:18	1

Lab Sample ID: LCS 410-227991/2-B

Matrix: Solid

Analysis Batch: 228638

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 227991

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
6:2 Fluorotelomer sulfonic acid	2.37	1.892		ug/Kg		80	59 - 135
8:2 Fluorotelomer sulfonic acid	2.40	2.025		ug/Kg		85	55 - 133
NEtFOSAA	2.50	2.053		ug/Kg		82	57 - 127
NMeFOSAA	2.50	2.059		ug/Kg		82	60 - 134
Perfluorobutanesulfonic acid	2.21	1.780		ug/Kg		80	54 - 130
Perfluorobutanoic acid	2.50	1.986		ug/Kg		79	60 - 128
Perfluorodecanesulfonic acid	2.41	1.769		ug/Kg		73	57 - 132
Perfluorodecanoic acid	2.50	1.981		ug/Kg		79	56 - 133
Perfluorododecanoic acid	2.50	2.089		ug/Kg		84	60 - 135
Perfluoroheptanesulfonic acid	2.38	1.905		ug/Kg		80	59 - 132
Perfluoroheptanoic acid	2.50	2.096		ug/Kg		84	59 - 137
Perfluorohexanesulfonic acid	2.28	1.863		ug/Kg		82	59 - 129
Perfluorohexanoic acid	2.50	1.966		ug/Kg		79	59 - 132
Perfluorononanoic acid	2.50	2.031		ug/Kg		81	61 - 134
Perfluorooctanesulfonamide	2.50	2.036		ug/Kg		81	47 - 149
Perfluorooctanesulfonic acid	2.31	1.824		ug/Kg		79	61 - 126
Perfluorooctanoic acid	2.50	2.099		ug/Kg		84	59 - 131
Perfluoropentanoic acid	2.50	1.857		ug/Kg		74	58 - 134
Perfluorotetradecanoic acid	2.50	2.118		ug/Kg		85	62 - 134
Perfluorotridecanoic acid	2.50	2.110		ug/Kg		84	53 - 143
Perfluoroundecanoic acid	2.50	2.076		ug/Kg		83	60 - 134

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	99		10 - 200
M2-8:2 FTS	91		15 - 200
13C2 PFTeDA	84		10 - 169
13C3 PFBS	91		27 - 179
13C4 PFBA	89		28 - 153
13C4 PFHpA	96		10 - 178
13C5 PFPeA	89		24 - 161
13C8 PFOA	96		26 - 159
13C8 PFOS	92		41 - 154
d3-NMeFOSAA	55		10 - 178
d5-NEtFOSAA	58		10 - 193
13C3 PFHxS	101		24 - 171
13C5 PFHxA	94		10 - 174

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-227991/2-B

Matrix: Solid

Analysis Batch: 228638

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 227991

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C6 PFDA	92		26 - 161
13C7 PFUnA	91		12 - 173
13C8 FOSA	80		14 - 163
13C2-PFDoDA	85		11 - 166
13C9 PFNA	85		26 - 165

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 228638

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 227991

Analyte	Sample		Spike Added	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
6:2 Fluorotelomer sulfonic acid	0.24	U	2.86	2.276		ug/Kg	⊛	80	59 - 135
8:2 Fluorotelomer sulfonic acid	0.24	U	2.89	2.389		ug/Kg	⊛	83	55 - 133
NEtFOSAA	0.24	U	3.02	2.525		ug/Kg	⊛	84	57 - 127
NMeFOSAA	0.24	U	3.02	2.477		ug/Kg	⊛	82	60 - 134
Perfluorobutanesulfonic acid	0.48	U	2.67	2.153		ug/Kg	⊛	81	54 - 130
Perfluorobutanoic acid	0.24	U	3.02	2.477		ug/Kg	⊛	82	60 - 128
Perfluorodecanesulfonic acid	0.24	U	2.91	2.191		ug/Kg	⊛	75	57 - 132
Perfluorodecanoic acid	0.24	U	3.02	2.235		ug/Kg	⊛	74	56 - 133
Perfluorododecanoic acid	0.24	U	3.02	2.396		ug/Kg	⊛	79	60 - 135
Perfluoroheptanesulfonic acid	0.24	U	2.87	2.156		ug/Kg	⊛	75	59 - 132
Perfluoroheptanoic acid	0.24	U	3.02	2.535		ug/Kg	⊛	84	59 - 137
Perfluorohexanesulfonic acid	0.24	U	2.75	2.198		ug/Kg	⊛	80	59 - 129
Perfluorohexanoic acid	0.24	U	3.02	2.538		ug/Kg	⊛	84	59 - 132
Perfluorononanoic acid	0.24	U	3.02	2.537		ug/Kg	⊛	84	61 - 134
Perfluorooctanesulfonamide	0.24	U	3.02	2.513		ug/Kg	⊛	83	47 - 149
Perfluorooctanesulfonic acid	0.24	U	2.79	2.163		ug/Kg	⊛	77	61 - 126
Perfluorooctanoic acid	0.24	U	3.02	2.527		ug/Kg	⊛	84	59 - 131
Perfluoropentanoic acid	0.24	U	3.02	2.313		ug/Kg	⊛	77	58 - 134
Perfluorotetradecanoic acid	0.24	U	3.02	2.597		ug/Kg	⊛	86	62 - 134
Perfluorotridecanoic acid	0.24	U	3.02	2.414		ug/Kg	⊛	80	53 - 143
Perfluoroundecanoic acid	0.24	U	3.02	2.519		ug/Kg	⊛	84	60 - 134

Isotope Dilution	MS		Limits
	%Recovery	Qualifier	
M2-6:2 FTS	82		10 - 200
M2-8:2 FTS	82		15 - 200
13C2 PFTeDA	73		10 - 169
13C3 PFBS	82		27 - 179
13C4 PFBA	80		28 - 153
13C4 PFHpA	82		10 - 178
13C5 PFPeA	78		24 - 161
13C8 PFOA	80		26 - 159
13C8 PFOS	84		41 - 154
d3-NMeFOSAA	55		10 - 178
d5-NEtFOSAA	60		10 - 193
13C3 PFHxS	84		24 - 171
13C5 PFHxA	78		10 - 174
13C6 PFDA	81		26 - 161
13C7 PFUnA	78		12 - 173

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 228638

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 227991

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C8 FOSA	11	*	14 - 163
13C2-PFDoDA	77		11 - 166
13C9 PFNA	82		26 - 165

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 228638

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 227991

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
6:2 Fluorotelomer sulfonic acid	0.24	U	2.88	2.242		ug/Kg	⊛	78	59 - 135	1	30
8:2 Fluorotelomer sulfonic acid	0.24	U	2.91	2.622		ug/Kg	⊛	90	55 - 133	9	30
NEtFOSAA	0.24	U	3.04	2.450		ug/Kg	⊛	81	57 - 127	3	30
NMeFOSAA	0.24	U	3.04	2.260		ug/Kg	⊛	74	60 - 134	9	30
Perfluorobutanesulfonic acid	0.48	U	2.69	2.172		ug/Kg	⊛	81	54 - 130	1	30
Perfluorobutanoic acid	0.24	U	3.04	2.394		ug/Kg	⊛	79	60 - 128	3	30
Perfluorodecanesulfonic acid	0.24	U	2.93	2.273		ug/Kg	⊛	78	57 - 132	4	30
Perfluorodecanoic acid	0.24	U	3.04	2.357		ug/Kg	⊛	78	56 - 133	5	30
Perfluorododecanoic acid	0.24	U	3.04	2.541		ug/Kg	⊛	84	60 - 135	6	30
Perfluoroheptanesulfonic acid	0.24	U	2.89	2.185		ug/Kg	⊛	76	59 - 132	1	30
Perfluoroheptanoic acid	0.24	U	3.04	2.600		ug/Kg	⊛	86	59 - 137	3	30
Perfluorohexanesulfonic acid	0.24	U	2.77	2.263		ug/Kg	⊛	82	59 - 129	3	30
Perfluorohexanoic acid	0.24	U	3.04	2.569		ug/Kg	⊛	85	59 - 132	1	30
Perfluorononanoic acid	0.24	U	3.04	2.492		ug/Kg	⊛	82	61 - 134	2	30
Perfluorooctanesulfonamide	0.24	U	3.04	2.744		ug/Kg	⊛	90	47 - 149	9	30
Perfluorooctanesulfonic acid	0.24	U	2.81	2.219		ug/Kg	⊛	79	61 - 126	3	30
Perfluorooctanoic acid	0.24	U	3.04	2.523		ug/Kg	⊛	83	59 - 131	0	30
Perfluoropentanoic acid	0.24	U	3.04	2.277		ug/Kg	⊛	75	58 - 134	2	30
Perfluorotetradecanoic acid	0.24	U	3.04	2.641		ug/Kg	⊛	87	62 - 134	2	30
Perfluorotridecanoic acid	0.24	U	3.04	2.564		ug/Kg	⊛	84	53 - 143	6	30
Perfluoroundecanoic acid	0.24	U	3.04	2.561		ug/Kg	⊛	84	60 - 134	2	30

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
M2-6:2 FTS	108		10 - 200
M2-8:2 FTS	96		15 - 200
13C2 PFTeDA	92		10 - 169
13C3 PFBS	99		27 - 179
13C4 PFBA	102		28 - 153
13C4 PFHpA	103		10 - 178
13C5 PFPeA	96		24 - 161
13C8 PFOA	104		26 - 159
13C8 PFOS	101		41 - 154
d3-NMeFOSAA	74		10 - 178
d5-NEtFOSAA	80		10 - 193
13C3 PFHxS	105		24 - 171
13C5 PFHxA	100		10 - 174
13C6 PFDA	103		26 - 161
13C7 PFUnA	101		12 - 173
13C8 FOSA	6	*	14 - 163
13C2-PFDoDA	98		11 - 166

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 228638

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 227991

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C9 PFNA	103		26 - 165

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-830507/1-A

Matrix: Solid

Analysis Batch: 830693

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 830507

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Barium	2.0	U	2.0	0.15	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Chromium	2.0	U	2.0	0.27	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Copper	2.0	U	2.0	0.37	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Manganese	4.0	U	4.0	0.40	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Nickel	2.0	U	2.0	0.47	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Lead	0.60	U	0.60	0.20	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Selenium	1.3	U	1.3	0.13	mg/Kg		02/26/22 09:22	02/27/22 21:57	1
Zinc	8.0	U	8.0	3.1	mg/Kg		02/26/22 09:22	02/27/22 21:57	1

Lab Sample ID: LCSSRM 460-830507/2-A ^5

Matrix: Solid

Analysis Batch: 830693

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 830507

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	33.6	19.56		mg/Kg		58.2	48.2 - 73.5
Arsenic	140	141.2		mg/Kg		100.9	82.9 - 117.9
Barium	202	208.5		mg/Kg		103.2	81.2 - 118.3
Beryllium	42.6	40.81		mg/Kg		95.8	81.0 - 119.0
Cadmium	97.9	94.41		mg/Kg		96.4	80.0 - 119.5
Chromium	60.4	57.08		mg/Kg		94.5	80.3 - 119.7
Copper	122	119.6		mg/Kg		98.1	82.8 - 117.2
Manganese	457	463.5		mg/Kg		101.4	79.6 - 120.6
Nickel	151	143.6		mg/Kg		95.1	79.5 - 121.2
Lead	56.7	56.93		mg/Kg		100.4	82.9 - 116.9
Selenium	35.5	35.36		mg/Kg		99.6	77.5 - 122.3
Zinc	186	176.1		mg/Kg		94.7	79.0 - 121.0

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 830693

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830507

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.2	U	6.05	5.64		mg/Kg	⊛	93	75 - 125
Arsenic	1.2		12.1	12.49		mg/Kg	⊛	93	75 - 125
Barium	20.9		12.1	28.48	N	mg/Kg	⊛	63	75 - 125
Beryllium	0.22	J	6.05	5.92		mg/Kg	⊛	94	75 - 125
Cadmium	1.2	U	6.05	5.68		mg/Kg	⊛	94	75 - 125
Chromium	7.3		12.1	18.99		mg/Kg	⊛	97	75 - 125
Copper	7.5		12.1	20.86		mg/Kg	⊛	111	75 - 125
Manganese	212		60.5	237.5	N	mg/Kg	⊛	42	75 - 125
Nickel	6.9		12.1	18.46		mg/Kg	⊛	96	75 - 125
Lead	7.3		6.05	13.27		mg/Kg	⊛	99	75 - 125
Selenium	1.5	U	12.1	11.00		mg/Kg	⊛	91	75 - 125
Zinc	25.3		60.5	83.56		mg/Kg	⊛	96	75 - 125

Lab Sample ID: 460-252838-1DU

Matrix: Solid

Analysis Batch: 830693

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830507

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.2	U	1.2	U	mg/Kg	⊛	NC	20
Arsenic	1.2		0.947	J	mg/Kg	⊛	22	20
Barium	20.9		17.34		mg/Kg	⊛	19	20
Beryllium	0.22	J	0.196	J	mg/Kg	⊛	10	20
Cadmium	1.2	U	1.2	U	mg/Kg	⊛	NC	20
Chromium	7.3		6.32		mg/Kg	⊛	14	20
Copper	7.5		6.94		mg/Kg	⊛	7	20
Manganese	212		194.7		mg/Kg	⊛	8	20
Nickel	6.9		7.23		mg/Kg	⊛	5	20
Lead	7.3		7.25		mg/Kg	⊛	0.3	20
Selenium	1.5	U	1.5	U	mg/Kg	⊛	NC	20
Zinc	25.3		25.43		mg/Kg	⊛	0.5	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-830004/10-A

Matrix: Solid

Analysis Batch: 830117

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 830004

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0080	mg/Kg		02/24/22 03:03	02/24/22 06:29	1

Lab Sample ID: LCSSRM 460-830004/11-A ^40

Matrix: Solid

Analysis Batch: 830117

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 830004

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	16.5	16.59		mg/Kg		100.5	74.5 - 124.8

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 830117

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830004

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.030		0.0992	0.127		mg/Kg	☆	98	80 - 120

Lab Sample ID: 460-252838-1DU

Matrix: Solid

Analysis Batch: 830117

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830004

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.030		0.0320		mg/Kg	☆	7	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-830452/1-A

Matrix: Solid

Analysis Batch: 830516

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 830452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		02/25/22 21:35	02/26/22 11:51	1

Lab Sample ID: LCSi 460-830452/3-A

Matrix: Solid

Analysis Batch: 830516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 830452

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	711.1		mg/Kg		100	80 - 120

Lab Sample ID: LCSSRM 460-830452/2-A

Matrix: Solid

Analysis Batch: 830516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 830452

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	15.9	14.32		mg/Kg		90.2	84.1 - 114.4

Lab Sample ID: LCSSRM 460-830452/4-A

Matrix: Solid

Analysis Batch: 830516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 830452

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	131	116.9		mg/Kg		89.3	61.3 - 138.2

Lab Sample ID: 460-252838-1 MSI

Matrix: Solid

Analysis Batch: 830516

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830452

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.4	U	857	786.1		mg/Kg	☆	92	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-252838-1 MSS

Matrix: Solid

Analysis Batch: 830516

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830452

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.4	U	48.4	41.85		mg/Kg	✱	86	75 - 125

Lab Sample ID: 460-252838-1DU

Matrix: Solid

Analysis Batch: 830516

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830452

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.4	U	2.3	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-830048/2-A

Matrix: Solid

Analysis Batch: 830152

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 830048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		02/24/22 07:35	02/24/22 13:02	1

Lab Sample ID: LCSSRM 460-830048/3-A ^20

Matrix: Solid

Analysis Batch: 830152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 830048

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	115	68.64		mg/Kg		59.7	25.6 - 125.2

Lab Sample ID: MRL 460-830048/1-A

Matrix: Solid

Analysis Batch: 830152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 830048

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0111		mg/L		111	50 - 150

Lab Sample ID: 460-252838-1 MS

Matrix: Solid

Analysis Batch: 830152

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830048

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.29	U	5.81	6.33	N	mg/Kg	✱	109	11 - 108

Lab Sample ID: 460-252838-1 MSD

Matrix: Solid

Analysis Batch: 830152

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Prep Batch: 830048

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.29	U	5.81	6.53	N	mg/Kg	✱	112	11 - 108	3	40

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method: Moisture - Percent Moisture

Lab Sample ID: 460-252838-1DU

Matrix: Solid

Analysis Batch: 829781

Client Sample ID: 150-PE-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	18.3		14.2	*	%		26	20
Percent Solids	81.7		85.8		%		5	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

GC/MS VOA

Prep Batch: 829256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	5035	
460-252838-1 MS	150-PE-12	Total/NA	Solid	5035	
460-252838-1 MSD	150-PE-12	Total/NA	Solid	5035	

Analysis Batch: 829545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	8260D	829256
MB 460-829545/9	Method Blank	Total/NA	Solid	8260D	
LCS 460-829545/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-829545/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 829737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-2	151-TB-15	Total/NA	Water	8260D	
MB 460-829737/8	Method Blank	Total/NA	Water	8260D	
LCS 460-829737/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-829737/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 829809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-829809/11	Method Blank	Total/NA	Solid	8260D	
LCS 460-829809/5	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-829809/6	Lab Control Sample Dup	Total/NA	Solid	8260D	
460-252838-1 MS	150-PE-12	Total/NA	Solid	8260D	829256
460-252838-1 MSD	150-PE-12	Total/NA	Solid	8260D	829256

GC/MS Semi VOA

Prep Batch: 829528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	3546	
MB 460-829528/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-829528/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-829528/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-252838-1 MS	150-PE-12	Total/NA	Solid	3546	
460-252838-1 MSD	150-PE-12	Total/NA	Solid	3546	

Analysis Batch: 829582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	8270E	829528
MB 460-829528/1-A	Method Blank	Total/NA	Solid	8270E	829528
LCS 460-829528/2-A	Lab Control Sample	Total/NA	Solid	8270E	829528
LCSD 460-829528/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	829528
460-252838-1 MS	150-PE-12	Total/NA	Solid	8270E	829528
460-252838-1 MSD	150-PE-12	Total/NA	Solid	8270E	829528

GC Semi VOA

Prep Batch: 829524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	8151A	
MB 460-829524/1-A	Method Blank	Total/NA	Solid	8151A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

GC Semi VOA (Continued)

Prep Batch: 829524 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-829524/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-829524/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-252838-1 MS	150-PE-12	Total/NA	Solid	8151A	
460-252838-1 MSD	150-PE-12	Total/NA	Solid	8151A	

Analysis Batch: 829567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	8151A	829524
MB 460-829524/1-A	Method Blank	Total/NA	Solid	8151A	829524
LCS 460-829524/2-A	Lab Control Sample	Total/NA	Solid	8151A	829524
LCSD 460-829524/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	829524
460-252838-1 MS	150-PE-12	Total/NA	Solid	8151A	829524
460-252838-1 MSD	150-PE-12	Total/NA	Solid	8151A	829524

Prep Batch: 829696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	3546	
MB 460-829696/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-829696/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-829696/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-252838-1 MS	150-PE-12	Total/NA	Solid	3546	
460-252838-1 MSD	150-PE-12	Total/NA	Solid	3546	

Prep Batch: 829705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	3546	
MB 460-829705/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-829705/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-829705/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-252838-1 MS	150-PE-12	Total/NA	Solid	3546	
460-252838-1 MSD	150-PE-12	Total/NA	Solid	3546	

Analysis Batch: 829767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	8081B	829705
MB 460-829705/1-A	Method Blank	Total/NA	Solid	8081B	829705
LCS 460-829705/2-A	Lab Control Sample	Total/NA	Solid	8081B	829705
LCSD 460-829705/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	829705
460-252838-1 MS	150-PE-12	Total/NA	Solid	8081B	829705
460-252838-1 MSD	150-PE-12	Total/NA	Solid	8081B	829705

Analysis Batch: 829784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	8082A	829696
MB 460-829696/1-A	Method Blank	Total/NA	Solid	8082A	829696
LCS 460-829696/2-A	Lab Control Sample	Total/NA	Solid	8082A	829696
LCSD 460-829696/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	829696
460-252838-1 MS	150-PE-12	Total/NA	Solid	8082A	829696
460-252838-1 MSD	150-PE-12	Total/NA	Solid	8082A	829696

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

LCMS

Prep Batch: 227991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	SHAKE	
MB 410-227991/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-227991/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-252838-1 MS	150-PE-12	Total/NA	Solid	SHAKE	
460-252838-1 MSD	150-PE-12	Total/NA	Solid	SHAKE	

Cleanup Batch: 228440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	Extract Aliquot	227991
MB 410-227991/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	227991
LCS 410-227991/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	227991
460-252838-1 MS	150-PE-12	Total/NA	Solid	Extract Aliquot	227991
460-252838-1 MSD	150-PE-12	Total/NA	Solid	Extract Aliquot	227991

Analysis Batch: 228638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	537 (Modified)	228440
MB 410-227991/1-B	Method Blank	Total/NA	Solid	537 (Modified)	228440
LCS 410-227991/2-B	Lab Control Sample	Total/NA	Solid	537 (Modified)	228440
460-252838-1 MS	150-PE-12	Total/NA	Solid	537 (Modified)	228440
460-252838-1 MSD	150-PE-12	Total/NA	Solid	537 (Modified)	228440

Metals

Prep Batch: 830004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	7471B	
MB 460-830004/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-830004/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	
460-252838-1 MS	150-PE-12	Total/NA	Solid	7471B	
460-252838-1DU	150-PE-12	Total/NA	Solid	7471B	

Analysis Batch: 830117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	7471B	830004
MB 460-830004/10-A	Method Blank	Total/NA	Solid	7471B	830004
LCSSRM 460-830004/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	830004
460-252838-1 MS	150-PE-12	Total/NA	Solid	7471B	830004
460-252838-1DU	150-PE-12	Total/NA	Solid	7471B	830004

Prep Batch: 830507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	3050B	
MB 460-830507/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-830507/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-252838-1 MS	150-PE-12	Total/NA	Solid	3050B	
460-252838-1DU	150-PE-12	Total/NA	Solid	3050B	

Analysis Batch: 830693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	6020B	830507

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Metals (Continued)

Analysis Batch: 830693 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-830507/1-A	Method Blank	Total/NA	Solid	6020B	830507
LCSSRM 460-830507/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	830507
460-252838-1 MS	150-PE-12	Total/NA	Solid	6020B	830507
460-252838-1DU	150-PE-12	Total/NA	Solid	6020B	830507

General Chemistry

Analysis Batch: 829626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	Moisture	
460-252838-1 MS	150-PE-12	Total/NA	Solid	Moisture	
460-252838-1 MSD	150-PE-12	Total/NA	Solid	Moisture	

Analysis Batch: 829781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1DU	150-PE-12	Total/NA	Solid	Moisture	

Analysis Batch: 829799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	7196A	

Prep Batch: 830048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	9012B	
MB 460-830048/2-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-830048/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
MRL 460-830048/1-A	Lab Control Sample	Total/NA	Solid	9012B	
460-252838-1 MS	150-PE-12	Total/NA	Solid	9012B	
460-252838-1 MSD	150-PE-12	Total/NA	Solid	9012B	

Analysis Batch: 830152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	9012B	830048
MB 460-830048/2-A	Method Blank	Total/NA	Solid	9012B	830048
LCSSRM 460-830048/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	830048
MRL 460-830048/1-A	Lab Control Sample	Total/NA	Solid	9012B	830048
460-252838-1 MS	150-PE-12	Total/NA	Solid	9012B	830048
460-252838-1 MSD	150-PE-12	Total/NA	Solid	9012B	830048

Prep Batch: 830452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	3060A	
MB 460-830452/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-830452/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-830452/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-830452/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-252838-1 MSI	150-PE-12	Total/NA	Solid	3060A	
460-252838-1 MSS	150-PE-12	Total/NA	Solid	3060A	
460-252838-1DU	150-PE-12	Total/NA	Solid	3060A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

General Chemistry

Analysis Batch: 830516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-252838-1	150-PE-12	Total/NA	Solid	7196A	830452
MB 460-830452/1-A	Method Blank	Total/NA	Solid	7196A	830452
LCSI 460-830452/3-A	Lab Control Sample	Total/NA	Solid	7196A	830452
LCSSRM 460-830452/2-A	Lab Control Sample	Total/NA	Solid	7196A	830452
LCSSRM 460-830452/4-A	Lab Control Sample	Total/NA	Solid	7196A	830452
460-252838-1 MSI	150-PE-12	Total/NA	Solid	7196A	830452
460-252838-1 MSS	150-PE-12	Total/NA	Solid	7196A	830452
460-252838-1DU	150-PE-12	Total/NA	Solid	7196A	830452

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Client Sample ID: 150-PE-12

Lab Sample ID: 460-252838-1

Date Collected: 02/18/22 08:30

Matrix: Solid

Date Received: 02/18/22 20:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	829799	02/23/22 06:49	TJW	TAL EDI
Total/NA	Analysis	Moisture		1	829626	02/22/22 11:51	FBT	TAL EDI

Client Sample ID: 150-PE-12

Lab Sample ID: 460-252838-1

Date Collected: 02/18/22 08:30

Matrix: Solid

Date Received: 02/18/22 20:00

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			829256	02/20/22 07:45	YXG	TAL EDI
Total/NA	Analysis	8260D		1	829545	02/22/22 14:37	EMM	TAL EDI
Total/NA	Prep	3546			829528	02/22/22 01:52	GXY	TAL EDI
Total/NA	Analysis	8270E		1	829582	02/22/22 10:30	DAN	TAL EDI
Total/NA	Prep	3546			829705	02/22/22 17:03	ARA	TAL EDI
Total/NA	Analysis	8081B		1	829767	02/23/22 05:52	FAM	TAL EDI
Total/NA	Prep	3546			829696	02/22/22 16:51	ARA	TAL EDI
Total/NA	Analysis	8082A		1	829784	02/23/22 09:36	JHP	TAL EDI
Total/NA	Prep	8151A			829524	02/22/22 00:34	AFR	TAL EDI
Total/NA	Analysis	8151A		1	829567	02/22/22 10:11	SAK	TAL EDI
Total/NA	Prep	SHAKE			227991	02/26/22 17:06	GU2F	ELLE
Total/NA	Cleanup	Extract Aliquot			228440	02/28/22 19:48	X5YV	ELLE
Total/NA	Analysis	537 (Modified)		1	228638	03/02/22 00:14	PY4D	ELLE
Total/NA	Prep	3050B			830507	02/26/22 09:22	SXC	TAL EDI
Total/NA	Analysis	6020B		1	830693	02/27/22 22:09	DLE	TAL EDI
Total/NA	Prep	7471B			830004	02/24/22 03:03	TJS	TAL EDI
Total/NA	Analysis	7471B		1	830117	02/24/22 06:33	TJS	TAL EDI
Total/NA	Prep	3060A			830452	02/25/22 21:35	VBG	TAL EDI
Total/NA	Analysis	7196A		1	830516	02/26/22 11:51	OXG	TAL EDI
Total/NA	Prep	9012B			830048	02/24/22 07:35	IAA	TAL EDI
Total/NA	Analysis	9012B		1	830152	02/24/22 13:26	HTV	TAL EDI

Client Sample ID: 151-TB-15

Lab Sample ID: 460-252838-2

Date Collected: 02/18/22 09:30

Matrix: Water

Date Received: 02/18/22 20:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	829737	02/23/22 06:05	KLB	TAL EDI

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22 *
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22 *
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-22 *
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-22 *
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	02-28-22 *
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Edison

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
8151A	Herbicides (GC)	SW846	TAL EDI
537 (Modified)	Fluorinated Alkyl Substances	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
8151A	Extraction (Herbicides)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Ave

Job ID: 460-252838-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-252838-1	150-PE-12	Solid	02/18/22 08:30	02/18/22 20:00
460-252838-2	151-TB-15	Water	02/18/22 09:30	02/18/22 20:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Address:

TAL-8210

Company Name: LANGRAN		Client Contact	
Address: 300 Kimball Drive			
City/State/Zip: Parsippany, NJ 07654			
Phone:			
Fax:			
Project Name: 2455 Third Ave			
Site: 190051701			
PO #			

Project Manager: A. Forsburg		Date:	
Tel/Email: 973 560 4774		Carrier:	
Analysis Turnaround Time			
☐ CALENDAR DAYS ☒ WORKING DAYS TAT if different from Below:			
☐ 2 weeks ☒ 1 week ☐ 2 days ☐ 1 day			

Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
02/18/12	0830	G	S	32
02/18/12	0930	N/A	Aq	2

Sample Identification	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs	SVOCs	PCBs	Pesticides	Herbicides	Metals including Hex and Arsenic	Chromium	PFAS	1,4-dioxane	Cyanide
150-PE-12 *	NN	NN	X	X	X	X	X	X	X	X	X	X
151-TB-15	NN	NN										

SHORT HOLD



460-252838 Chain of Custody

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other _____ Possible Hazard Identification: _____ Are any samples from a listed EPA-Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.		Sample Disposal (A fee may be assessed if samples are longer than 1 month) ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months	

Special Instructions/QC Requirements & Comments:	
* = MS/17.5D ASP-B and NYS DEC BCP Custody Seal No.: _____ Relinquished by: Andres Valenzuela Relinquished by: Andres Valenzuela Relinquished by: Andres Valenzuela	

Custody Seal No.: _____		Cooler Temp. (°C): Obs'd: _____	
Company: Langran		Company: Langran	
Date/Time: 2/18/12 11:00		Date/Time: 2/18/12 11:00	
Company: _____		Company: _____	
Date/Time: _____		Date/Time: _____	
Company: _____		Company: _____	
Date/Time: _____		Date/Time: _____	
Company: _____		Company: _____	

29 May

25238

IR Gun #

2

Cooler Temperatures

[illegible]

If pH adjustments are required record the information below:

Volume of Preservative used (ml):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Initials: Kanad

Date: 2/8/22

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-252838-1

Login Number: 252838

List Number: 1

Creator: Casallas, Angela C

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-252838-1

Login Number: 252838

List Number: 2

Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env, LLC

List Creation: 02/21/22 08:05 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

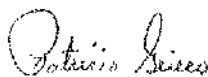
Laboratory Job ID: 460-241856-1

Client Project/Site: 2455 Third Avenue, Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

9/20/2022 12:36:26 PM

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

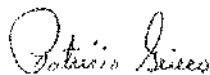
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
9/20/2022 12:36:26 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	11
Client Sample Results	15
Surrogate Summary	52
Isotope Dilution Summary	55
QC Sample Results	57
QC Association Summary	91
Lab Chronicle	100
Certification Summary	108
Method Summary	110
Sample Summary	111
Chain of Custody	112
Receipt Checklists	121



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Job ID: 460-241856-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue, Bronx, NY

Report Number: 460-241856-1

Revision #1: Revise All sample IDs - COC Provided

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 08/30/2021; the samples arrived in good condition, properly preserved and on ice. **Receipt Exceptions**

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. No TAT recorded on the COC. No sample time recorded on the COC for samples 1 or 2. Sample times taken from containers.

The following sample(s) was listed on the Chain of Custody (COC); however, no sample(s) was received:
sample #7 + sample #8.

A change was made to Sample #5 ID a revised acknowledgment form was provided.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 08/31/2021 and analyzed on 08/31/2021 and 09/01/2021.

The continuing calibration verification (CCV) associated with batch 460-799422 recovered above the upper control limit for Carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Toluene-d8 (Surr) failed the surrogate recovery criteria high for LCSD 460-799252/11. Refer to the QC report for details.

1,3-Dichlorobenzene, N-Propylbenzene, sec-Butylbenzene and tert-Butylbenzene failed the recovery criteria high for LCSD 460-799252/11.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Job ID: 460-241856-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Refer to the QC report for details.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 036 / TB-1B (460-241856-13) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 09/02/2021.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 08/31/2021 and analyzed on 09/01/2021.

The continuing calibration verification (CCV) analyzed in batch 460-799215 was outside the method criteria for the following analyte(s): < Benzo[a]pyrene>. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Benzo[g,h,i]perylene failed the recovery criteria low for the MS of sample 460-241854-1 in batch 460-799215.

Benzo[g,h,i]perylene failed the recovery criteria low for the MSD of sample 460-241854-1 in batch 460-799215.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 08/31/2021 and analyzed on 09/01/2021.

Aldrin, Heptachlor and Heptachlor epoxide failed the recovery criteria low for the MS of sample 460-241582-1 in batch 460-799186.

Several analytes failed the recovery criteria low for the MSD of sample 460-241582-1 in batch 460-799186.

Refer to the QC report for details.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for polychlorinated biphenyls in accordance with

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Job ID: 460-241856-1 (Continued)

Laboratory: Eurofins Edison (Continued)

EPA SW-846 Method 8082A. The samples were prepared on 08/31/2021 and analyzed on 09/01/2021.

Aroclor 1260 failed the recovery criteria low for the MS of sample 460-241582-1 in batch 460-799202.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 08/31/2021 and 09/03/2021 and analyzed on 09/01/2021 and 09/03/2021.

The continuing calibration verification (CCV) associated with batch 460-799232 recovered above the upper control limit for 2,4,5-T. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The closing continuing calibration verification (CCVC) associated with batch 460-799232 recovered above the upper control limit for 2,4,5-T. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 09/01/2021 and 09/09/2021 and analyzed on 09/05/2021 and 09/10/2021.

The recovery for the labeled isotope(s) in the following samples: 016 / LB-35_15-16 (460-241856-1), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 021 / LB-37_15-16 (460-241856-6) and 032 / LB-29_5-7 (460-241856-9) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

The recovery for the labeled isotope(s) in the laboratory control spike sample (LCS) associated with samples: 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9) and 035 / LB-30_16-17 (460-241856-12) is outside the QC acceptance limits. Since the recovery for the target analytes is within the QC acceptance limits, the data is reported.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared and analyzed on 09/01/2021.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Job ID: 460-241856-1 (Continued)

Laboratory: Eurofins Edison (Continued)

HEXAVALENT CHROMIUM

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared and analyzed on 09/05/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 09/01/2021.

Mercury failed the recovery criteria low for the MS of sample 460-241700-1 in batch 460-799282.

Refer to the QC report for details.

No other difficulties were encountered during the Hg analysis.

All other quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 09/07/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 09/03/2021 and analyzed on 09/05/2021.

Cyanide, Total exceeded the RPD limit for the MSD of sample 460-242064-1 in batch 460-799930.

Cyanide, Total exceeded the RPD limit for the MSD of sample 460-242064-1 in batch 460-799930.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 016 / LB-35_15-16 (460-241856-1), 017 / LB-35_5-7 (460-241856-2), 018 / LB-36_5-7 (460-241856-3), 019 / LB-36_15-16 (460-241856-4), 020 / LB-28_5-7 (460-241856-5), 021 / LB-37_15-16 (460-241856-6), 032 / LB-29_5-7 (460-241856-9), 033 / LB-29_15-16 (460-241856-10) and 035 / LB-30_16-17 (460-241856-12) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 08/31/2021.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Job ID: 460-241856-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 016_LB-35_15-16

Lab Sample ID: 460-241856-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.5		4.5	0.33	ug/Kg	1	✱	8260D	Total/NA
Acetone	19		5.4	5.2	ug/Kg	1	✱	8260D	Total/NA
Benzo[a]anthracene	23	J	44	15	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	12	J	44	12	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	19	J	44	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	460		440	13	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	9.3	J	44	8.6	ug/Kg	1	✱	8270E	Total/NA
Chrysene	17	J	440	7.4	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	200		44	19	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	8.1	J	440	6.2	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	27	J	440	15	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	260		44	17	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	40	J	440	7.6	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	36	J	440	7.7	ug/Kg	1	✱	8270E	Total/NA
Pyrene	23	J	440	11	ug/Kg	1	✱	8270E	Total/NA
Arsenic	1.6		1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Barium	21.5		2.5	0.18	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.32	J	0.50	0.072	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.3		2.5	0.22	mg/Kg	1	✱	6020B	Total/NA
Copper	14.1		2.5	0.28	mg/Kg	1	✱	6020B	Total/NA
Manganese	105		5.0	0.51	mg/Kg	1	✱	6020B	Total/NA
Nickel	10		2.5	0.24	mg/Kg	1	✱	6020B	Total/NA
Lead	17.9		0.75	0.25	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.17	J	1.6	0.15	mg/Kg	1	✱	6020B	Total/NA
Zinc	33.7		10.0	2.9	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.0062	J	0.022	0.0052	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	12.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 017_LB-35_5-7

Lab Sample ID: 460-241856-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.4	J	7.2	0.53	ug/Kg	1	✱	8260D	Total/NA
Acetone	23		8.7	8.3	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	3.8		2.9	1.7	ug/Kg	1	✱	8260D	Total/NA
Benzo[g,h,i]perylene	24	J	580	17	ug/Kg	1	✱	8270E	Total/NA
Chrysene	11	J	580	9.9	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	21	J	580	20	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	17	J	580	10	ug/Kg	1	✱	8270E	Total/NA
Pyrene	19	J	580	15	ug/Kg	1	✱	8270E	Total/NA
Arsenic	2.5		1.6	0.16	mg/Kg	1	✱	6020B	Total/NA
Barium	25.1		3.3	0.24	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.49	J	0.66	0.094	mg/Kg	1	✱	6020B	Total/NA
Chromium	13.8		3.3	0.29	mg/Kg	1	✱	6020B	Total/NA
Copper	10.4		3.3	0.36	mg/Kg	1	✱	6020B	Total/NA
Manganese	181		6.6	0.66	mg/Kg	1	✱	6020B	Total/NA
Nickel	13.8		3.3	0.32	mg/Kg	1	✱	6020B	Total/NA
Lead	12.9		0.98	0.33	mg/Kg	1	✱	6020B	Total/NA
Zinc	40.5		13.1	3.8	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.022	J	0.027	0.0063	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	13.8		2.0	2.0	mg/Kg	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 018_LB-36_5-7

Lab Sample ID: 460-241856-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.8		5.4	5.2	ug/Kg	1	✱	8260D	Total/NA
4,4'-DDE	2.8	J	8.1	0.96	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanoic acid	0.22	J	0.67	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.37	J	0.67	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	2.9		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	48.0		2.4	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.34	J	0.48	0.068	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.32	J	1.2	0.13	mg/Kg	1	✱	6020B	Total/NA
Chromium	17.9		2.4	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	26.5		2.4	0.26	mg/Kg	1	✱	6020B	Total/NA
Manganese	175		4.8	0.48	mg/Kg	1	✱	6020B	Total/NA
Nickel	13.2		2.4	0.23	mg/Kg	1	✱	6020B	Total/NA
Lead	52.2		0.71	0.24	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.15	J	1.5	0.14	mg/Kg	1	✱	6020B	Total/NA
Zinc	92.6		9.5	2.7	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.014	J	0.021	0.0048	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	17.9		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 019_LB-36_15-16

Lab Sample ID: 460-241856-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.9		4.5	0.33	ug/Kg	1	✱	8260D	Total/NA
Acetone	28		5.5	5.2	ug/Kg	1	✱	8260D	Total/NA
Benzo[a]anthracene	15	J	40	14	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	10	J	40	10	ug/Kg	1	✱	8270E	Total/NA
Chrysene	7.0	J	400	6.7	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	15	J	400	14	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	10	J	400	7.0	ug/Kg	1	✱	8270E	Total/NA
Pyrene	13	J	400	9.9	ug/Kg	1	✱	8270E	Total/NA
Arsenic	1.1	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	24.2		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.18	J	0.46	0.066	mg/Kg	1	✱	6020B	Total/NA
Chromium	8.8		2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	6.3		2.3	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	73.1		4.6	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.7		2.3	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	15.5		0.69	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	21.0		9.2	2.6	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	8.8		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 020_LB-28_5-7

Lab Sample ID: 460-241856-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.53	J	0.88	0.22	ug/Kg	1	✱	8260D	Total/NA
Xylenes, Total	1.4	J	1.8	0.57	ug/Kg	1	✱	8260D	Total/NA
Perfluorooctanoic acid	0.058		0.041	0.014	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.55		0.041	0.014	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.6		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	28.3		2.1	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.37	J	0.43	0.061	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.6		2.1	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	8.4		2.1	0.24	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 020_LB-28_5-7 (Continued)

Lab Sample ID: 460-241856-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	331		4.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.8		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	4.8		0.64	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	21.9		8.6	2.5	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	11.6		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 021_LB-37_15-16

Lab Sample ID: 460-241856-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.46	J	0.87	0.21	ug/Kg	1	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	0.28	J	0.87	0.27	ug/Kg	1	✱	8260D	Total/NA
Acetone	7.0		5.2	5.0	ug/Kg	1	✱	8260D	Total/NA
Ethylbenzene	0.25	J	0.87	0.17	ug/Kg	1	✱	8260D	Total/NA
Xylenes, Total	1.5	J	1.7	0.56	ug/Kg	1	✱	8260D	Total/NA
Perfluorooctanoic acid	0.34	J	0.71	0.24	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.62	J	0.71	0.24	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.5		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	19.7		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.31	J	0.46	0.066	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.9		2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	7.5		2.3	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	131		4.6	0.47	mg/Kg	1	✱	6020B	Total/NA
Nickel	9.9		2.3	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	4.4		0.69	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	20.3		9.2	2.6	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	11.9		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 032_LB-29_5-7

Lab Sample ID: 460-241856-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	18	J	39	10	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	23	J	390	13	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	15	J	390	6.8	ug/Kg	1	✱	8270E	Total/NA
Pyrene	20	J	390	9.6	ug/Kg	1	✱	8270E	Total/NA
Arsenic	1.3		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	31.0		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.24	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Chromium	9.4		2.2	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	8.0		2.2	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	84.0		4.5	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	8.9		2.2	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	22.2		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	33.7		9.0	2.6	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.28		0.018	0.0042	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	9.4		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 033_LB-29_15-16

Lab Sample ID: 460-241856-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.0		5.2	4.9	ug/Kg	1	✱	8260D	Total/NA
Arsenic	1.2		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	39.0		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 033_LB-29_15-16 (Continued)

Lab Sample ID: 460-241856-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.22	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Chromium	10.7		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	7.6		2.2	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	81.7		4.5	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	8.0		2.2	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	28.0		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	30.2		8.9	2.6	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.45		0.019	0.0044	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	10.7		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 035_LB-30_16-17

Lab Sample ID: 460-241856-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11		5.1	4.9	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	1.1	J	1.7	0.98	ug/Kg	1	✱	8260D	Total/NA
Anthracene	13	J	400	12	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	59		40	14	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	51		40	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	75		40	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	19	J	400	12	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	26	J	40	7.8	ug/Kg	1	✱	8270E	Total/NA
Chrysene	50	J	400	6.7	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	100	J	400	14	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	28	J	40	15	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	70	J	400	7.0	ug/Kg	1	✱	8270E	Total/NA
Pyrene	95	J	400	9.9	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanoic acid	0.44	J	0.65	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.2		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	14.0		2.4	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.17	J	0.47	0.068	mg/Kg	1	✱	6020B	Total/NA
Chromium	7.7		2.4	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	6.7		2.4	0.26	mg/Kg	1	✱	6020B	Total/NA
Manganese	106		4.7	0.48	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.4		2.4	0.23	mg/Kg	1	✱	6020B	Total/NA
Lead	9.2		0.71	0.24	mg/Kg	1	✱	6020B	Total/NA
Zinc	16.9		9.5	2.7	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	7.7		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 036_TB-1B

Lab Sample ID: 460-241856-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 016_LB-35_15-16

Lab Sample ID: 460-241856-1

Date Collected: 08/30/21 10:00

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 75.1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.90	U	0.90	0.21	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,1-Dichloroethane	0.90	U	0.90	0.19	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,1-Dichloroethene	0.90	U	0.90	0.20	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,2,4-Trimethylbenzene	0.90	U	0.90	0.22	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,2-Dichlorobenzene	0.90	U	0.90	0.33	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,2-Dichloroethane	0.90	U	0.90	0.27	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,3,5-Trimethylbenzene	0.90	U	0.90	0.28	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,3-Dichlorobenzene	0.90	U	0.90	0.33	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,4-Dichlorobenzene	0.90	U	0.90	0.20	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
1,4-Dioxane	18	U	18	8.3	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
2-Butanone (MEK)	4.5		4.5	0.33	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Acetone	19		5.4	5.2	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Benzene	0.90	U	0.90	0.23	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Carbon tetrachloride	0.90	U	0.90	0.35	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Chlorobenzene	0.90	U	0.90	0.16	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Chloroform	0.90	U	0.90	0.87	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
cis-1,2-Dichloroethene	0.90	U	0.90	0.32	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Ethylbenzene	0.90	U	0.90	0.18	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Methyl tert-butyl ether	0.90	U	0.90	0.46	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
n-Butylbenzene	0.90	U	0.90	0.26	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
N-Propylbenzene	0.90	U	0.90	0.16	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
sec-Butylbenzene	0.90	U	0.90	0.26	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
tert-Butylbenzene	0.90	U	0.90	0.25	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Tetrachloroethene	0.90	U	0.90	0.27	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Toluene	0.90	U	0.90	0.21	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
trans-1,2-Dichloroethene	0.90	U	0.90	0.22	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Trichloroethene	0.90	U	0.90	0.29	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Vinyl chloride	0.90	U	0.90	0.49	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1
Xylenes, Total	1.8	U	1.8	0.58	ug/Kg	✱	08/31/21 12:31	09/01/21 02:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 145	08/31/21 12:31	09/01/21 02:02	1
4-Bromofluorobenzene	126		70 - 139	08/31/21 12:31	09/01/21 02:02	1
Dibromofluoromethane (Surr)	119		48 - 150	08/31/21 12:31	09/01/21 02:02	1
Toluene-d8 (Surr)	113		80 - 120	08/31/21 12:31	09/01/21 02:02	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	44	U	44	38	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
2-Methylphenol	440	U	440	16	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
3 & 4 Methylphenol	440	U	440	27	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Acenaphthene	440	U	440	13	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Acenaphthylene	440	U	440	4.4	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Anthracene	440	U	440	13	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Benzo[a]anthracene	23	J	44	15	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Benzo[a]pyrene	12	J	44	12	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Benzo[b]fluoranthene	19	J	44	11	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Benzo[g,h,i]perylene	460		440	13	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Benzo[k]fluoranthene	9.3	J	44	8.6	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 016_LB-35_15-16

Lab Sample ID: 460-241856-1

Date Collected: 08/30/21 10:00

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 75.1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	17	J	440	7.4	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Dibenz(a,h)anthracene	200		44	19	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Dibenzofuran	8.1	J	440	6.2	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Fluoranthene	27	J	440	15	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Fluorene	440	U	440	6.0	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Hexachlorobenzene	44	U	44	21	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Indeno[1,2,3-cd]pyrene	260		44	17	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Naphthalene	40	J	440	7.6	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Pentachlorophenol	350	U	350	90	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Phenanthrene	36	J	440	7.7	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Phenol	440	U	440	16	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1
Pyrene	23	J	440	11	ug/Kg	✱	08/31/21 20:22	09/01/21 11:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	98		11 - 104	08/31/21 20:22	09/01/21 11:32	1
Phenol-d5 (Surr)	85		15 - 100	08/31/21 20:22	09/01/21 11:32	1
Terphenyl-d14 (Surr)	90		12 - 126	08/31/21 20:22	09/01/21 11:32	1
2,4,6-Tribromophenol (Surr)	97		10 - 123	08/31/21 20:22	09/01/21 11:32	1
2-Fluorophenol (Surr)	86		10 - 105	08/31/21 20:22	09/01/21 11:32	1
2-Fluorobiphenyl	85		14 - 103	08/31/21 20:22	09/01/21 11:32	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.9	U	8.9	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
4,4'-DDE	8.9	U	8.9	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
4,4'-DDT	8.9	U	8.9	1.6	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Aldrin	8.9	U	8.9	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
alpha-BHC	2.7	U	2.7	0.91	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
beta-BHC	2.7	U	2.7	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Chlordane (technical)	89	U	89	22	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
delta-BHC	2.7	U	2.7	0.55	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Dieldrin	2.7	U	2.7	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Endosulfan I	8.9	U	8.9	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Endosulfan II	8.9	U	8.9	2.3	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Endosulfan sulfate	8.9	U	8.9	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Endrin	8.9	U	8.9	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Endrin aldehyde	8.9	U	8.9	2.1	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Endrin ketone	8.9	U	8.9	1.7	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
gamma-BHC (Lindane)	2.7	U	2.7	0.83	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Heptachlor	8.9	U	8.9	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Heptachlor epoxide	8.9	U	8.9	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Methoxychlor	8.9	U	8.9	2.0	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
Toxaphene	89	U	89	32	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1
cis-Chlordane	8.9	U	8.9	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 04:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	61		10 - 150	08/31/21 17:18	09/01/21 04:44	1
DCB Decachlorobiphenyl	56		10 - 150	08/31/21 17:18	09/01/21 04:44	1
Tetrachloro-m-xylene	58		10 - 133	08/31/21 17:18	09/01/21 04:44	1
Tetrachloro-m-xylene	55		10 - 133	08/31/21 17:18	09/01/21 04:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 016_LB-35_15-16

Lab Sample ID: 460-241856-1

Date Collected: 08/30/21 10:00

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 75.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Aroclor 1221	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Aroclor 1232	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Aroclor 1242	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Aroclor 1248	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Aroclor 1254	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Aroclor 1260	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Aroclor-1262	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Aroclor 1268	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1
Polychlorinated biphenyls, Total	89	U	89	24	ug/Kg	✱	08/31/21 17:12	09/01/21 09:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		37 - 150	08/31/21 17:12	09/01/21 09:09	1
DCB Decachlorobiphenyl	84		37 - 150	08/31/21 17:12	09/01/21 09:09	1
Tetrachloro-m-xylene	81		54 - 150	08/31/21 17:12	09/01/21 09:09	1
Tetrachloro-m-xylene	77		54 - 150	08/31/21 17:12	09/01/21 09:09	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	44	U	44	4.6	ug/Kg	✱	08/31/21 23:45	09/01/21 09:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	94		65 - 150	08/31/21 23:45	09/01/21 09:15	1
2,4-Dichlorophenylacetic acid	111		65 - 150	08/31/21 23:45	09/01/21 09:15	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluoroheptanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorooctanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorononanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorodecanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorotridecanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorotetradecanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorobutanesulfonic acid	2.54	U	2.54	0.51	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorohexanesulfonic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorooctanesulfonic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
NEtFOSAA	2.54	U	2.54	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
NMeFOSAA	2.54	U	2.54	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluoroheptanesulfonic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorodecanesulfonic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorooctanesulfonamide	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorobutanoic acid	2.54	U	2.54	1.01	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluoroundecanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluorododecanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
6:2 Fluorotelomer sulfonic acid	2.54	U	2.54	0.76	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
8:2 Fluorotelomer sulfonic acid	3.80	U	3.80	0.76	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1
Perfluoropentanoic acid	0.76	U	0.76	0.25	ug/Kg	✱	09/01/21 10:53	09/05/21 14:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	125		10 - 178	09/01/21 10:53	09/05/21 14:29	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 016_LB-35_15-16

Lab Sample ID: 460-241856-1

Date Collected: 08/30/21 10:00

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 75.1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	123		10 - 182	09/01/21 10:53	09/05/21 14:29	1
13C5 PFHxA	113		11 - 138	09/01/21 10:53	09/05/21 14:29	1
13C4 PFHpA	126		15 - 139	09/01/21 10:53	09/05/21 14:29	1
13C8 PFOA	129		21 - 133	09/01/21 10:53	09/05/21 14:29	1
13C9 PFNA	134		15 - 145	09/01/21 10:53	09/05/21 14:29	1
13C6 PFDA	128		21 - 134	09/01/21 10:53	09/05/21 14:29	1
13C7 PFUnA	132		15 - 138	09/01/21 10:53	09/05/21 14:29	1
13C2-PFDoDA	131 *		28 - 126	09/01/21 10:53	09/05/21 14:29	1
13C2 PFTeDA	124		10 - 138	09/01/21 10:53	09/05/21 14:29	1
13C3 PFBS	151 *		23 - 130	09/01/21 10:53	09/05/21 14:29	1
13C3 PFHxS	126		24 - 136	09/01/21 10:53	09/05/21 14:29	1
13C8 PFOS	130		31 - 130	09/01/21 10:53	09/05/21 14:29	1
d3-NMeFOSAA	128		10 - 172	09/01/21 10:53	09/05/21 14:29	1
d5-NEtFOSAA	137		10 - 176	09/01/21 10:53	09/05/21 14:29	1
13C8 FOSA	125		25 - 135	09/01/21 10:53	09/05/21 14:29	1
13C4 PFBA	125		12 - 137	09/01/21 10:53	09/05/21 14:29	1
13C5 PFPeA	134		12 - 135	09/01/21 10:53	09/05/21 14:29	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	1.3	0.11	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Arsenic	1.6		1.3	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Barium	21.5		2.5	0.18	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Beryllium	0.32	J	0.50	0.072	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Cadmium	1.3	U	1.3	0.14	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Chromium	12.3		2.5	0.22	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Copper	14.1		2.5	0.28	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Manganese	105		5.0	0.51	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Nickel	10		2.5	0.24	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Lead	17.9		0.75	0.25	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Selenium	0.17	J	1.6	0.15	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1
Zinc	33.7		10.0	2.9	mg/Kg	✱	09/01/21 06:34	09/01/21 17:09	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0062	J	0.022	0.0052	mg/Kg	✱	09/01/21 03:21	09/01/21 07:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.3		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.7	U	2.7	1.1	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	✱	09/03/21 21:48	09/05/21 13:12	1
Percent Moisture	24.9		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	75.1		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 017_LB-35_5-7

Lab Sample ID: 460-241856-2

Date Collected: 08/30/21 10:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 56.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.4	U	1.4	0.34	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,1-Dichloroethane	1.4	U	1.4	0.30	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,1-Dichloroethene	1.4	U	1.4	0.33	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,2,4-Trimethylbenzene	1.4	U	1.4	0.36	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,2-Dichlorobenzene	1.4	U	1.4	0.52	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,2-Dichloroethane	1.4	U	1.4	0.43	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,3,5-Trimethylbenzene	1.4	U	1.4	0.45	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,3-Dichlorobenzene	1.4	U	1.4	0.53	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,4-Dichlorobenzene	1.4	U	1.4	0.33	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
1,4-Dioxane	29	U	29	13	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
2-Butanone (MEK)	4.4	J	7.2	0.53	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Acetone	23		8.7	8.3	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Benzene	1.4	U	1.4	0.37	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Carbon tetrachloride	1.4	U	1.4	0.56	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Chlorobenzene	1.4	U	1.4	0.26	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Chloroform	1.4	U	1.4	1.4	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
cis-1,2-Dichloroethene	1.4	U	1.4	0.52	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Ethylbenzene	1.4	U	1.4	0.29	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Methyl tert-butyl ether	1.4	U	1.4	0.74	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Methylene Chloride	3.8		2.9	1.7	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
n-Butylbenzene	1.4	U	1.4	0.43	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
N-Propylbenzene	1.4	U	1.4	0.25	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
sec-Butylbenzene	1.4	U	1.4	0.42	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
tert-Butylbenzene	1.4	U	1.4	0.40	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Tetrachloroethene	1.4	U	1.4	0.44	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Toluene	1.4	U	1.4	0.34	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
trans-1,2-Dichloroethene	1.4	U	1.4	0.36	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Trichloroethene	1.4	U	1.4	0.46	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Vinyl chloride	1.4	U	1.4	0.79	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1
Xylenes, Total	2.9	U	2.9	0.93	ug/Kg	✱	08/31/21 12:31	08/31/21 23:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		77 - 145	08/31/21 12:31	08/31/21 23:01	1
4-Bromofluorobenzene	123		70 - 139	08/31/21 12:31	08/31/21 23:01	1
Dibromofluoromethane (Surr)	122		48 - 150	08/31/21 12:31	08/31/21 23:01	1
Toluene-d8 (Surr)	117		80 - 120	08/31/21 12:31	08/31/21 23:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	58	U	58	51	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
2-Methylphenol	580	U	580	22	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
3 & 4 Methylphenol	580	U	580	37	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Acenaphthene	580	U	580	17	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Acenaphthylene	580	U	580	5.9	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Anthracene	580	U	580	18	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Benzo[a]anthracene	58	U	58	20	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Benzo[a]pyrene	58	U	58	16	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Benzo[b]fluoranthene	58	U	58	15	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Benzo[g,h,i]perylene	24	J	580	17	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Benzo[k]fluoranthene	58	U	58	11	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 017_LB-35_5-7

Lab Sample ID: 460-241856-2

Date Collected: 08/30/21 10:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 56.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	11	J	580	9.9	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Dibenz(a,h)anthracene	58	U	58	25	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Dibenzofuran	580	U	580	8.2	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Fluoranthene	21	J	580	20	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Fluorene	580	U	580	8.0	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Hexachlorobenzene	58	U	58	28	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Indeno[1,2,3-cd]pyrene	58	U	58	23	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Naphthalene	580	U	580	10	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Pentachlorophenol	470	U	470	120	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Phenanthrene	17	J	580	10	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Phenol	580	U	580	22	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1
Pyrene	19	J	580	15	ug/Kg	✱	08/31/21 20:22	09/01/21 11:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	95		11 - 104	08/31/21 20:22	09/01/21 11:49	1
Phenol-d5 (Surr)	85		15 - 100	08/31/21 20:22	09/01/21 11:49	1
Terphenyl-d14 (Surr)	90		12 - 126	08/31/21 20:22	09/01/21 11:49	1
2,4,6-Tribromophenol (Surr)	97		10 - 123	08/31/21 20:22	09/01/21 11:49	1
2-Fluorophenol (Surr)	87		10 - 105	08/31/21 20:22	09/01/21 11:49	1
2-Fluorobiphenyl	83		14 - 103	08/31/21 20:22	09/01/21 11:49	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	12	U	12	2.0	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
4,4'-DDE	12	U	12	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
4,4'-DDT	12	U	12	2.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Aldrin	12	U	12	1.8	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
alpha-BHC	3.5	U	3.5	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
beta-BHC	3.5	U	3.5	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Chlordane (technical)	120	U	120	29	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
delta-BHC	3.5	U	3.5	0.73	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Dieldrin	3.5	U	3.5	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Endosulfan I	12	U	12	1.8	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Endosulfan II	12	U	12	3.0	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Endosulfan sulfate	12	U	12	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Endrin	12	U	12	1.7	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Endrin aldehyde	12	U	12	2.8	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Endrin ketone	12	U	12	2.3	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
gamma-BHC (Lindane)	3.5	U	3.5	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Heptachlor	12	U	12	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Heptachlor epoxide	12	U	12	1.8	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Methoxychlor	12	U	12	2.7	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
Toxaphene	120	U	120	43	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1
cis-Chlordane	12	U	12	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 05:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		10 - 150	08/31/21 17:18	09/01/21 05:00	1
DCB Decachlorobiphenyl	67		10 - 150	08/31/21 17:18	09/01/21 05:00	1
Tetrachloro-m-xylene	69		10 - 133	08/31/21 17:18	09/01/21 05:00	1
Tetrachloro-m-xylene	62		10 - 133	08/31/21 17:18	09/01/21 05:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 017_LB-35_5-7

Lab Sample ID: 460-241856-2

Date Collected: 08/30/21 10:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 56.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Aroclor 1221	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Aroclor 1232	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Aroclor 1242	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Aroclor 1248	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Aroclor 1254	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Aroclor 1260	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Aroclor-1262	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Aroclor 1268	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1
Polychlorinated biphenyls, Total	120	U	120	32	ug/Kg	✱	08/31/21 17:12	09/01/21 09:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		37 - 150	08/31/21 17:12	09/01/21 09:26	1
DCB Decachlorobiphenyl	86		37 - 150	08/31/21 17:12	09/01/21 09:26	1
Tetrachloro-m-xylene	79		54 - 150	08/31/21 17:12	09/01/21 09:26	1
Tetrachloro-m-xylene	75		54 - 150	08/31/21 17:12	09/01/21 09:26	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	59	U	59	6.1	ug/Kg	✱	08/31/21 23:45	09/01/21 09:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	99		65 - 150	08/31/21 23:45	09/01/21 09:30	1
2,4-Dichlorophenylacetic acid	112		65 - 150	08/31/21 23:45	09/01/21 09:30	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluoroheptanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorooctanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorononanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorodecanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorotridecanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorotetradecanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorobutanesulfonic acid	3.54	U	3.54	0.71	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorohexanesulfonic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorooctanesulfonic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
NEtFOSAA	3.54	U	3.54	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
NMeFOSAA	3.54	U	3.54	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluoroheptanesulfonic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorodecanesulfonic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorooctanesulfonamide	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorobutanoic acid	3.54	U	3.54	1.42	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluoroundecanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluorododecanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
6:2 Fluorotelomer sulfonic acid	3.54	U	3.54	1.06	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
8:2 Fluorotelomer sulfonic acid	5.32	U	5.32	1.06	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1
Perfluoropentanoic acid	1.06	U	1.06	0.35	ug/Kg	✱	09/01/21 10:53	09/05/21 14:40	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	119		10 - 178	09/01/21 10:53	09/05/21 14:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 017_LB-35_5-7

Lab Sample ID: 460-241856-2

Date Collected: 08/30/21 10:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 56.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	109		10 - 182	09/01/21 10:53	09/05/21 14:40	1
13C5 PFHxA	103		11 - 138	09/01/21 10:53	09/05/21 14:40	1
13C4 PFHpA	109		15 - 139	09/01/21 10:53	09/05/21 14:40	1
13C8 PFOA	113		21 - 133	09/01/21 10:53	09/05/21 14:40	1
13C9 PFNA	111		15 - 145	09/01/21 10:53	09/05/21 14:40	1
13C6 PFDA	110		21 - 134	09/01/21 10:53	09/05/21 14:40	1
13C7 PFUnA	118		15 - 138	09/01/21 10:53	09/05/21 14:40	1
13C2-PFDoDA	108		28 - 126	09/01/21 10:53	09/05/21 14:40	1
13C2 PFTeDA	107		10 - 138	09/01/21 10:53	09/05/21 14:40	1
13C3 PFBS	128		23 - 130	09/01/21 10:53	09/05/21 14:40	1
13C3 PFHxS	110		24 - 136	09/01/21 10:53	09/05/21 14:40	1
13C8 PFOS	110		31 - 130	09/01/21 10:53	09/05/21 14:40	1
d3-NMeFOSAA	110		10 - 172	09/01/21 10:53	09/05/21 14:40	1
d5-NEtFOSAA	135		10 - 176	09/01/21 10:53	09/05/21 14:40	1
13C8 FOSA	101		25 - 135	09/01/21 10:53	09/05/21 14:40	1
13C4 PFBA	110		12 - 137	09/01/21 10:53	09/05/21 14:40	1
13C5 PFPeA	112		12 - 135	09/01/21 10:53	09/05/21 14:40	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.6	U	1.6	0.15	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Arsenic	2.5		1.6	0.16	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Barium	25.1		3.3	0.24	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Beryllium	0.49	J	0.66	0.094	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Cadmium	1.6	U	1.6	0.19	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Chromium	13.8		3.3	0.29	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Copper	10.4		3.3	0.36	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Manganese	181		6.6	0.66	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Nickel	13.8		3.3	0.32	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Lead	12.9		0.98	0.33	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Selenium	2.1	U	2.1	0.19	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1
Zinc	40.5		13.1	3.8	mg/Kg	✱	09/01/21 06:34	09/01/21 17:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022	J	0.027	0.0063	mg/Kg	✱	09/01/21 03:21	09/01/21 07:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	13.8		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	3.5	U	3.5	1.5	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.43	U	0.43	0.23	mg/Kg	✱	09/03/21 21:48	09/05/21 13:13	1
Percent Moisture	43.6		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	56.4		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 018_LB-36_5-7

Lab Sample ID: 460-241856-3

Date Collected: 08/30/21 10:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 82.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.90	U	0.90	0.21	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,1-Dichloroethane	0.90	U	0.90	0.19	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,1-Dichloroethene	0.90	U	0.90	0.20	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,2,4-Trimethylbenzene	0.90	U	0.90	0.22	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,2-Dichlorobenzene	0.90	U	0.90	0.33	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,2-Dichloroethane	0.90	U	0.90	0.27	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,3,5-Trimethylbenzene	0.90	U	0.90	0.28	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,3-Dichlorobenzene	0.90	U *	0.90	0.33	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,4-Dichlorobenzene	0.90	U	0.90	0.20	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
1,4-Dioxane	18	U	18	8.3	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
2-Butanone (MEK)	4.5	U	4.5	0.33	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Acetone	6.8		5.4	5.2	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Benzene	0.90	U	0.90	0.23	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Carbon tetrachloride	0.90	U	0.90	0.35	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Chlorobenzene	0.90	U	0.90	0.16	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Chloroform	0.90	U	0.90	0.88	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
cis-1,2-Dichloroethene	0.90	U	0.90	0.32	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Ethylbenzene	0.90	U	0.90	0.18	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Methyl tert-butyl ether	0.90	U	0.90	0.46	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
n-Butylbenzene	0.90	U	0.90	0.27	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
N-Propylbenzene	0.90	U *	0.90	0.16	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
sec-Butylbenzene	0.90	U *	0.90	0.26	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
tert-Butylbenzene	0.90	U *	0.90	0.25	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Tetrachloroethene	0.90	U	0.90	0.28	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Toluene	0.90	U	0.90	0.21	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
trans-1,2-Dichloroethene	0.90	U	0.90	0.22	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Trichloroethene	0.90	U	0.90	0.29	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Vinyl chloride	0.90	U	0.90	0.49	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1
Xylenes, Total	1.8	U	1.8	0.58	ug/Kg	✱	08/31/21 12:33	09/01/21 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 145	08/31/21 12:33	09/01/21 13:41	1
4-Bromofluorobenzene	119		70 - 139	08/31/21 12:33	09/01/21 13:41	1
Dibromofluoromethane (Surr)	117		48 - 150	08/31/21 12:33	09/01/21 13:41	1
Toluene-d8 (Surr)	116		80 - 120	08/31/21 12:33	09/01/21 13:41	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	40	U	40	35	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Acenaphthene	400	U	400	11	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Acenaphthylene	400	U	400	4.0	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Anthracene	400	U	400	12	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Benzo[a]anthracene	40	U	40	14	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Benzo[b]fluoranthene	40	U	40	10	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Benzo[k]fluoranthene	40	U	40	7.9	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 018_LB-36_5-7

Lab Sample ID: 460-241856-3

Date Collected: 08/30/21 10:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 82.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	400	U	400	6.8	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Dibenzofuran	400	U	400	5.6	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Fluoranthene	400	U	400	14	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Fluorene	400	U	400	5.4	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Naphthalene	400	U	400	6.9	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Pentachlorophenol	320	U	320	82	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Phenanthrene	400	U	400	7.0	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Phenol	400	U	400	15	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1
Pyrene	400	U	400	10	ug/Kg	✱	08/31/21 20:22	09/01/21 12:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	96		11 - 104	08/31/21 20:22	09/01/21 12:07	1
Phenol-d5 (Surr)	86		15 - 100	08/31/21 20:22	09/01/21 12:07	1
Terphenyl-d14 (Surr)	92		12 - 126	08/31/21 20:22	09/01/21 12:07	1
2,4,6-Tribromophenol (Surr)	96		10 - 123	08/31/21 20:22	09/01/21 12:07	1
2-Fluorophenol (Surr)	87		10 - 105	08/31/21 20:22	09/01/21 12:07	1
2-Fluorobiphenyl	82		14 - 103	08/31/21 20:22	09/01/21 12:07	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.1	U	8.1	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
4,4'-DDE	2.8	J	8.1	0.96	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
4,4'-DDT	8.1	U	8.1	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
beta-BHC	2.4	U	2.4	0.91	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Chlordane (technical)	81	U	81	20	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Endosulfan II	8.1	U	8.1	2.1	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Endrin	8.1	U	8.1	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Heptachlor	8.1	U	8.1	0.96	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Methoxychlor	8.1	U	8.1	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
Toxaphene	81	U	81	29	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 05:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		10 - 150	08/31/21 17:18	09/01/21 05:15	1
DCB Decachlorobiphenyl	71		10 - 150	08/31/21 17:18	09/01/21 05:15	1
Tetrachloro-m-xylene	73		10 - 133	08/31/21 17:18	09/01/21 05:15	1
Tetrachloro-m-xylene	67		10 - 133	08/31/21 17:18	09/01/21 05:15	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 018_LB-36_5-7

Lab Sample ID: 460-241856-3

Date Collected: 08/30/21 10:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 82.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Aroclor 1221	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Aroclor 1232	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Aroclor 1242	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Aroclor 1248	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Aroclor 1254	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Aroclor 1260	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Aroclor-1262	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Aroclor 1268	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1
Polychlorinated biphenyls, Total	81	U	81	22	ug/Kg	✱	08/31/21 17:12	09/01/21 09:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		37 - 150	08/31/21 17:12	09/01/21 09:43	1
DCB Decachlorobiphenyl	88		37 - 150	08/31/21 17:12	09/01/21 09:43	1
Tetrachloro-m-xylene	83		54 - 150	08/31/21 17:12	09/01/21 09:43	1
Tetrachloro-m-xylene	79		54 - 150	08/31/21 17:12	09/01/21 09:43	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	✱	08/31/21 23:45	09/01/21 09:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		65 - 150	08/31/21 23:45	09/01/21 09:45	1
2,4-Dichlorophenylacetic acid	128		65 - 150	08/31/21 23:45	09/01/21 09:45	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorooctanoic acid	0.22	J	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorobutanesulfonic acid	2.24	U	2.24	0.45	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorooctanesulfonic acid	0.37	J	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
NEtFOSAA	2.24	U	2.24	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
NMeFOSAA	2.24	U	2.24	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorobutanoic acid	2.24	U	2.24	0.90	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
6:2 Fluorotelomer sulfonic acid	2.24	U	2.24	0.67	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
8:2 Fluorotelomer sulfonic acid	3.36	U	3.36	0.67	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 14:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	106		10 - 178	09/01/21 10:53	09/05/21 14:51	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 018_LB-36_5-7

Lab Sample ID: 460-241856-3

Date Collected: 08/30/21 10:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 82.6

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	119		10 - 182	09/01/21 10:53	09/05/21 14:51	1
13C5 PFHxA	112		11 - 138	09/01/21 10:53	09/05/21 14:51	1
13C4 PFHpA	119		15 - 139	09/01/21 10:53	09/05/21 14:51	1
13C8 PFOA	126		21 - 133	09/01/21 10:53	09/05/21 14:51	1
13C9 PFNA	121		15 - 145	09/01/21 10:53	09/05/21 14:51	1
13C6 PFDA	118		21 - 134	09/01/21 10:53	09/05/21 14:51	1
13C7 PFUnA	122		15 - 138	09/01/21 10:53	09/05/21 14:51	1
13C2-PFDoDA	117		28 - 126	09/01/21 10:53	09/05/21 14:51	1
13C2 PFTeDA	115		10 - 138	09/01/21 10:53	09/05/21 14:51	1
13C3 PFBS	146 *		23 - 130	09/01/21 10:53	09/05/21 14:51	1
13C3 PFHxS	120		24 - 136	09/01/21 10:53	09/05/21 14:51	1
13C8 PFOS	122		31 - 130	09/01/21 10:53	09/05/21 14:51	1
d3-NMeFOSAA	99		10 - 172	09/01/21 10:53	09/05/21 14:51	1
d5-NEtFOSAA	106		10 - 176	09/01/21 10:53	09/05/21 14:51	1
13C8 FOSA	113		25 - 135	09/01/21 10:53	09/05/21 14:51	1
13C4 PFBA	115		12 - 137	09/01/21 10:53	09/05/21 14:51	1
13C5 PFPeA	122		12 - 135	09/01/21 10:53	09/05/21 14:51	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Arsenic	2.9		1.2	0.12	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Barium	48.0		2.4	0.17	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Beryllium	0.34	J	0.48	0.068	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Cadmium	0.32	J	1.2	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Chromium	17.9		2.4	0.21	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Copper	26.5		2.4	0.26	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Manganese	175		4.8	0.48	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Nickel	13.2		2.4	0.23	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Lead	52.2		0.71	0.24	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Selenium	0.15	J	1.5	0.14	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1
Zinc	92.6		9.5	2.7	mg/Kg	✱	09/01/21 06:34	09/01/21 17:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.021	0.0048	mg/Kg	✱	09/01/21 03:21	09/01/21 07:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	17.9		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	✱	09/03/21 21:48	09/05/21 13:18	1
Percent Moisture	17.4		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	82.6		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 019_LB-36_15-16

Lab Sample ID: 460-241856-4

Date Collected: 08/30/21 10:55

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.91	U	0.91	0.21	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,1-Dichloroethane	0.91	U	0.91	0.19	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,1-Dichloroethene	0.91	U	0.91	0.20	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,2,4-Trimethylbenzene	0.91	U	0.91	0.22	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,2-Dichlorobenzene	0.91	U	0.91	0.33	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,2-Dichloroethane	0.91	U	0.91	0.27	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,3,5-Trimethylbenzene	0.91	U	0.91	0.29	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,3-Dichlorobenzene	0.91	U	0.91	0.33	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,4-Dichlorobenzene	0.91	U	0.91	0.20	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
1,4-Dioxane	18	U	18	8.3	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
2-Butanone (MEK)	4.9		4.5	0.33	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Acetone	28		5.5	5.2	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Benzene	0.91	U	0.91	0.23	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Carbon tetrachloride	0.91	U	0.91	0.35	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Chlorobenzene	0.91	U	0.91	0.16	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Chloroform	0.91	U	0.91	0.88	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
cis-1,2-Dichloroethene	0.91	U	0.91	0.33	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Ethylbenzene	0.91	U	0.91	0.18	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Methyl tert-butyl ether	0.91	U	0.91	0.47	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
n-Butylbenzene	0.91	U	0.91	0.27	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
N-Propylbenzene	0.91	U	0.91	0.16	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
sec-Butylbenzene	0.91	U	0.91	0.26	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
tert-Butylbenzene	0.91	U	0.91	0.25	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Tetrachloroethene	0.91	U	0.91	0.28	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Toluene	0.91	U	0.91	0.21	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
trans-1,2-Dichloroethene	0.91	U	0.91	0.22	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Trichloroethene	0.91	U	0.91	0.29	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Vinyl chloride	0.91	U	0.91	0.50	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1
Xylenes, Total	1.8	U	1.8	0.58	ug/Kg	✱	08/31/21 12:33	08/31/21 23:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		77 - 145	08/31/21 12:33	08/31/21 23:41	1
4-Bromofluorobenzene	128		70 - 139	08/31/21 12:33	08/31/21 23:41	1
Dibromofluoromethane (Surr)	120		48 - 150	08/31/21 12:33	08/31/21 23:41	1
Toluene-d8 (Surr)	114		80 - 120	08/31/21 12:33	08/31/21 23:41	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	40	U	40	35	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Acenaphthene	400	U	400	11	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Acenaphthylene	400	U	400	4.0	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Anthracene	400	U	400	12	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Benzo[a]anthracene	15	J	40	14	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Benzo[b]fluoranthene	10	J	40	10	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Benzo[k]fluoranthene	40	U	40	7.8	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 019_LB-36_15-16

Lab Sample ID: 460-241856-4

Date Collected: 08/30/21 10:55

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	7.0	J	400	6.7	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Dibenzofuran	400	U	400	5.6	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Fluoranthene	15	J	400	14	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Fluorene	400	U	400	5.4	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Indeno[1,2,3-cd]pyrene	40	U	40	15	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Naphthalene	400	U	400	6.9	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Pentachlorophenol	320	U	320	81	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Phenanthrene	10	J	400	7.0	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Phenol	400	U	400	15	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1
Pyrene	13	J	400	9.9	ug/Kg	✱	08/31/21 20:22	09/01/21 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		11 - 104	08/31/21 20:22	09/01/21 12:24	1
Phenol-d5 (Surr)	77		15 - 100	08/31/21 20:22	09/01/21 12:24	1
Terphenyl-d14 (Surr)	82		12 - 126	08/31/21 20:22	09/01/21 12:24	1
2,4,6-Tribromophenol (Surr)	88		10 - 123	08/31/21 20:22	09/01/21 12:24	1
2-Fluorophenol (Surr)	78		10 - 105	08/31/21 20:22	09/01/21 12:24	1
2-Fluorobiphenyl	74		14 - 103	08/31/21 20:22	09/01/21 12:24	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.0	U	8.0	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
4,4'-DDE	8.0	U	8.0	0.95	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
4,4'-DDT	8.0	U	8.0	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Aldrin	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
beta-BHC	2.4	U	2.4	0.90	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Chlordane (technical)	80	U	80	19	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Endosulfan I	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Endosulfan II	8.0	U	8.0	2.1	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Endosulfan sulfate	8.0	U	8.0	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Endrin	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Endrin aldehyde	8.0	U	8.0	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Endrin ketone	8.0	U	8.0	1.6	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
gamma-BHC (Lindane)	2.4	U	2.4	0.74	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Heptachlor	8.0	U	8.0	0.95	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Heptachlor epoxide	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Methoxychlor	8.0	U	8.0	1.8	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
Toxaphene	80	U	80	29	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1
cis-Chlordane	8.0	U	8.0	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 05:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		10 - 150	08/31/21 17:18	09/01/21 05:31	1
DCB Decachlorobiphenyl	69		10 - 150	08/31/21 17:18	09/01/21 05:31	1
Tetrachloro-m-xylene	70		10 - 133	08/31/21 17:18	09/01/21 05:31	1
Tetrachloro-m-xylene	66		10 - 133	08/31/21 17:18	09/01/21 05:31	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 019_LB-36_15-16

Lab Sample ID: 460-241856-4

Date Collected: 08/30/21 10:55

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Aroclor 1221	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Aroclor 1232	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Aroclor 1242	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Aroclor 1248	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Aroclor 1254	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Aroclor 1260	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Aroclor-1262	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Aroclor 1268	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1
Polychlorinated biphenyls, Total	80	U	80	21	ug/Kg	☆	08/31/21 17:12	09/01/21 10:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		37 - 150	08/31/21 17:12	09/01/21 10:00	1
DCB Decachlorobiphenyl	75		37 - 150	08/31/21 17:12	09/01/21 10:00	1
Tetrachloro-m-xylene	69		54 - 150	08/31/21 17:12	09/01/21 10:00	1
Tetrachloro-m-xylene	66		54 - 150	08/31/21 17:12	09/01/21 10:00	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	☆	08/31/21 23:45	09/01/21 09:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	101		65 - 150	08/31/21 23:45	09/01/21 09:59	1
2,4-Dichlorophenylacetic acid	115		65 - 150	08/31/21 23:45	09/01/21 09:59	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluoroheptanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorooctanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorononanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorodecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorotridecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorotetradecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorobutanesulfonic acid	2.28	U	2.28	0.46	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorohexanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorooctanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
NEtFOSAA	2.28	U	2.28	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
NMeFOSAA	2.28	U	2.28	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluoroheptanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorodecanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorooctanesulfonamide	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorobutanoic acid	2.28	U	2.28	0.91	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluoroundecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluorododecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
6:2 Fluorotelomer sulfonic acid	2.28	U	2.28	0.69	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
8:2 Fluorotelomer sulfonic acid	3.43	U	3.43	0.69	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1
Perfluoropentanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/01/21 10:53	09/05/21 15:02	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	123		10 - 178	09/01/21 10:53	09/05/21 15:02	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 019_LB-36_15-16

Lab Sample ID: 460-241856-4

Date Collected: 08/30/21 10:55

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	116		10 - 182	09/01/21 10:53	09/05/21 15:02	1
13C5 PFHxA	124		11 - 138	09/01/21 10:53	09/05/21 15:02	1
13C4 PFHpA	118		15 - 139	09/01/21 10:53	09/05/21 15:02	1
13C8 PFOA	130		21 - 133	09/01/21 10:53	09/05/21 15:02	1
13C9 PFNA	124		15 - 145	09/01/21 10:53	09/05/21 15:02	1
13C6 PFDA	122		21 - 134	09/01/21 10:53	09/05/21 15:02	1
13C7 PFUnA	130		15 - 138	09/01/21 10:53	09/05/21 15:02	1
13C2-PFDoDA	113		28 - 126	09/01/21 10:53	09/05/21 15:02	1
13C2 PFTeDA	121		10 - 138	09/01/21 10:53	09/05/21 15:02	1
13C3 PFBS	135 *		23 - 130	09/01/21 10:53	09/05/21 15:02	1
13C3 PFHxS	119		24 - 136	09/01/21 10:53	09/05/21 15:02	1
13C8 PFOS	124		31 - 130	09/01/21 10:53	09/05/21 15:02	1
d3-NMeFOSAA	121		10 - 172	09/01/21 10:53	09/05/21 15:02	1
d5-NEtFOSAA	135		10 - 176	09/01/21 10:53	09/05/21 15:02	1
13C8 FOSA	115		25 - 135	09/01/21 10:53	09/05/21 15:02	1
13C4 PFBA	116		12 - 137	09/01/21 10:53	09/05/21 15:02	1
13C5 PFPeA	122		12 - 135	09/01/21 10:53	09/05/21 15:02	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.10	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Arsenic	1.1	J	1.2	0.12	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Barium	24.2		2.3	0.17	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Beryllium	0.18	J	0.46	0.066	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Chromium	8.8		2.3	0.20	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Copper	6.3		2.3	0.25	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Manganese	73.1		4.6	0.46	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Nickel	6.7		2.3	0.22	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Lead	15.5		0.69	0.23	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Selenium	1.4	U	1.4	0.14	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1
Zinc	21.0		9.2	2.6	mg/Kg	✱	09/01/21 06:34	09/01/21 17:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	U	0.019	0.0044	mg/Kg	✱	09/01/21 03:21	09/01/21 07:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	8.8		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	✱	09/03/21 21:48	09/05/21 13:18	1
Percent Moisture	16.6		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	83.4		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 020_LB-28_5-7

Lab Sample ID: 460-241856-5

Date Collected: 08/30/21 11:05

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 91.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.88	U	0.88	0.21	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,1-Dichloroethane	0.88	U	0.88	0.18	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,1-Dichloroethene	0.88	U	0.88	0.20	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,2,4-Trimethylbenzene	0.53	J	0.88	0.22	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,2-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,2-Dichloroethane	0.88	U	0.88	0.26	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,3,5-Trimethylbenzene	0.88	U	0.88	0.28	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,3-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,4-Dichlorobenzene	0.88	U	0.88	0.20	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
1,4-Dioxane	18	U	18	8.1	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
2-Butanone (MEK)	4.4	U	4.4	0.32	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Acetone	5.3	U	5.3	5.0	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Benzene	0.88	U	0.88	0.23	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Carbon tetrachloride	0.88	U	0.88	0.34	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Chlorobenzene	0.88	U	0.88	0.16	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Chloroform	0.88	U	0.88	0.85	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
cis-1,2-Dichloroethene	0.88	U	0.88	0.32	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Ethylbenzene	0.88	U	0.88	0.18	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Methyl tert-butyl ether	0.88	U	0.88	0.45	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
n-Butylbenzene	0.88	U	0.88	0.26	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
N-Propylbenzene	0.88	U	0.88	0.15	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
sec-Butylbenzene	0.88	U	0.88	0.25	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
tert-Butylbenzene	0.88	U	0.88	0.24	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Tetrachloroethene	0.88	U	0.88	0.27	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Toluene	0.88	U	0.88	0.21	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
trans-1,2-Dichloroethene	0.88	U	0.88	0.22	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Trichloroethene	0.88	U	0.88	0.28	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Vinyl chloride	0.88	U	0.88	0.48	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1
Xylenes, Total	1.4	J	1.8	0.57	ug/Kg	✱	08/31/21 12:34	09/01/21 00:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		77 - 145	08/31/21 12:34	09/01/21 00:01	1
4-Bromofluorobenzene	128		70 - 139	08/31/21 12:34	09/01/21 00:01	1
Dibromofluoromethane (Surr)	124		48 - 150	08/31/21 12:34	09/01/21 00:01	1
Toluene-d8 (Surr)	116		80 - 120	08/31/21 12:34	09/01/21 00:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	36	U	36	32	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
2-Methylphenol	360	U	360	14	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
3 & 4 Methylphenol	360	U	360	23	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Acenaphthene	360	U	360	10	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Acenaphthylene	360	U	360	3.6	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Anthracene	360	U	360	11	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Benzo[a]anthracene	36	U	36	13	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Benzo[a]pyrene	36	U	36	9.7	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Benzo[b]fluoranthene	36	U	36	9.4	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Benzo[g,h,i]perylene	360	U	360	11	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Benzo[k]fluoranthene	36	U	36	7.1	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 020_LB-28_5-7

Lab Sample ID: 460-241856-5

Date Collected: 08/30/21 11:05

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 91.2

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	360	U	360	6.1	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Dibenz(a,h)anthracene	36	U	36	16	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Dibenzofuran	360	U	360	5.1	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Fluoranthene	360	U	360	13	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Fluorene	360	U	360	4.9	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Hexachlorobenzene	36	U	36	17	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Indeno[1,2,3-cd]pyrene	36	U	36	14	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Naphthalene	360	U	360	6.3	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Pentachlorophenol	290	U	290	74	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Phenanthrene	360	U	360	6.4	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Phenol	360	U	360	13	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1
Pyrene	360	U	360	9.0	ug/Kg	✱	08/31/21 20:22	09/01/21 12:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	93		11 - 104	08/31/21 20:22	09/01/21 12:41	1
Phenol-d5 (Surr)	84		15 - 100	08/31/21 20:22	09/01/21 12:41	1
Terphenyl-d14 (Surr)	91		12 - 126	08/31/21 20:22	09/01/21 12:41	1
2,4,6-Tribromophenol (Surr)	94		10 - 123	08/31/21 20:22	09/01/21 12:41	1
2-Fluorophenol (Surr)	86		10 - 105	08/31/21 20:22	09/01/21 12:41	1
2-Fluorobiphenyl	80		14 - 103	08/31/21 20:22	09/01/21 12:41	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.3	U	7.3	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
4,4'-DDE	7.3	U	7.3	0.87	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
4,4'-DDT	7.3	U	7.3	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Aldrin	7.3	U	7.3	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
alpha-BHC	2.2	U	2.2	0.75	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
beta-BHC	2.2	U	2.2	0.82	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Chlordane (technical)	73	U	73	18	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
delta-BHC	2.2	U	2.2	0.45	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Dieldrin	2.2	U	2.2	0.95	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Endosulfan I	7.3	U	7.3	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Endosulfan II	7.3	U	7.3	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Endosulfan sulfate	7.3	U	7.3	0.92	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Endrin	7.3	U	7.3	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Endrin aldehyde	7.3	U	7.3	1.7	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Endrin ketone	7.3	U	7.3	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
gamma-BHC (Lindane)	2.2	U	2.2	0.68	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Heptachlor	7.3	U	7.3	0.87	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Heptachlor epoxide	7.3	U	7.3	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Methoxychlor	7.3	U	7.3	1.7	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
Toxaphene	73	U	73	27	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1
cis-Chlordane	7.3	U	7.3	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 05:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		10 - 150	08/31/21 17:18	09/01/21 05:47	1
DCB Decachlorobiphenyl	76		10 - 150	08/31/21 17:18	09/01/21 05:47	1
Tetrachloro-m-xylene	74		10 - 133	08/31/21 17:18	09/01/21 05:47	1
Tetrachloro-m-xylene	70		10 - 133	08/31/21 17:18	09/01/21 05:47	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 020_LB-28_5-7

Lab Sample ID: 460-241856-5

Date Collected: 08/30/21 11:05

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 91.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Aroclor 1221	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Aroclor 1232	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Aroclor 1242	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Aroclor 1248	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Aroclor 1254	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Aroclor 1260	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Aroclor-1262	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Aroclor 1268	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1
Polychlorinated biphenyls, Total	73	U	73	20	ug/Kg	✱	08/31/21 17:12	09/01/21 10:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		37 - 150	08/31/21 17:12	09/01/21 10:17	1
DCB Decachlorobiphenyl	87		37 - 150	08/31/21 17:12	09/01/21 10:17	1
Tetrachloro-m-xylene	82		54 - 150	08/31/21 17:12	09/01/21 10:17	1
Tetrachloro-m-xylene	78		54 - 150	08/31/21 17:12	09/01/21 10:17	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	37	U	37	3.8	ug/Kg	✱	08/31/21 23:45	09/01/21 10:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	100		65 - 150	08/31/21 23:45	09/01/21 10:14	1
2,4-Dichlorophenylacetic acid	117		65 - 150	08/31/21 23:45	09/01/21 10:14	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluoroheptanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorooctanoic acid	0.058		0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorononanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorodecanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorotridecanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorotetradecanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorobutanesulfonic acid	0.14	U	0.14	0.027	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorohexanesulfonic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorooctanesulfonic acid	0.55		0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
NEtFOSAA	0.14	U	0.14	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
NMeFOSAA	0.14	U	0.14	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluoroheptanesulfonic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorodecanesulfonic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorooctanesulfonamide	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorobutanoic acid	0.14	U	0.14	0.055	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluoroundecanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluorododecanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
6:2 Fluorotelomer sulfonic acid	0.14	U	0.14	0.041	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
8:2 Fluorotelomer sulfonic acid	0.21	U	0.21	0.041	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1
Perfluoropentanoic acid	0.041	U	0.041	0.014	ug/Kg	✱	09/09/21 12:10	09/10/21 14:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	39		10 - 178	09/09/21 12:10	09/10/21 14:15	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 020_LB-28_5-7

Lab Sample ID: 460-241856-5

Date Collected: 08/30/21 11:05

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 91.2

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	37		10 - 182	09/09/21 12:10	09/10/21 14:15	1
13C5 PFHxA	32		11 - 138	09/09/21 12:10	09/10/21 14:15	1
13C4 PFHpA	33		15 - 139	09/09/21 12:10	09/10/21 14:15	1
13C8 PFOA	35		21 - 133	09/09/21 12:10	09/10/21 14:15	1
13C9 PFNA	34		15 - 145	09/09/21 12:10	09/10/21 14:15	1
13C6 PFDA	33		21 - 134	09/09/21 12:10	09/10/21 14:15	1
13C7 PFUnA	30		15 - 138	09/09/21 12:10	09/10/21 14:15	1
13C2-PFDoDA	30		28 - 126	09/09/21 12:10	09/10/21 14:15	1
13C2 PFTeDA	32		10 - 138	09/09/21 12:10	09/10/21 14:15	1
13C3 PFBS	39		23 - 130	09/09/21 12:10	09/10/21 14:15	1
13C3 PFHxS	35		24 - 136	09/09/21 12:10	09/10/21 14:15	1
13C8 PFOS	35		31 - 130	09/09/21 12:10	09/10/21 14:15	1
d3-NMeFOSAA	13		10 - 172	09/09/21 12:10	09/10/21 14:15	1
d5-NEtFOSAA	15		10 - 176	09/09/21 12:10	09/10/21 14:15	1
13C8 FOSA	29		25 - 135	09/09/21 12:10	09/10/21 14:15	1
13C4 PFBA	31		12 - 137	09/09/21 12:10	09/10/21 14:15	1
13C5 PFPeA	30		12 - 135	09/09/21 12:10	09/10/21 14:15	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.096	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Arsenic	1.6		1.1	0.11	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Barium	28.3		2.1	0.16	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Beryllium	0.37	J	0.43	0.061	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Chromium	11.6		2.1	0.19	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Copper	8.4		2.1	0.24	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Manganese	331		4.3	0.43	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Nickel	10.8		2.1	0.21	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Lead	4.8		0.64	0.21	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Selenium	1.3	U	1.3	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1
Zinc	21.9		8.6	2.5	mg/Kg	✱	09/01/21 06:34	09/01/21 17:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	U	0.019	0.0044	mg/Kg	✱	09/01/21 03:21	09/01/21 07:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.6		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.2	U	2.2	0.94	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	09/03/21 21:48	09/05/21 13:19	1
Percent Moisture	8.8		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	91.2		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 021_LB-37_15-16

Lab Sample ID: 460-241856-6

Date Collected: 08/30/21 11:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 81.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.87	U	0.87	0.20	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,1-Dichloroethane	0.87	U	0.87	0.18	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,1-Dichloroethene	0.87	U	0.87	0.20	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,2,4-Trimethylbenzene	0.46	J	0.87	0.21	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,2-Dichlorobenzene	0.87	U	0.87	0.32	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,2-Dichloroethane	0.87	U	0.87	0.26	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,3,5-Trimethylbenzene	0.28	J	0.87	0.27	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,3-Dichlorobenzene	0.87	U *	0.87	0.32	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,4-Dichlorobenzene	0.87	U	0.87	0.20	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
1,4-Dioxane	17	U	17	8.0	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
2-Butanone (MEK)	4.4	U	4.4	0.32	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Acetone	7.0		5.2	5.0	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Benzene	0.87	U	0.87	0.23	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Carbon tetrachloride	0.87	U	0.87	0.34	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Chlorobenzene	0.87	U	0.87	0.15	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Chloroform	0.87	U	0.87	0.85	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
cis-1,2-Dichloroethene	0.87	U	0.87	0.31	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Ethylbenzene	0.25	J	0.87	0.17	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Methyl tert-butyl ether	0.87	U	0.87	0.45	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Methylene Chloride	1.7	U	1.7	1.0	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
n-Butylbenzene	0.87	U	0.87	0.26	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
N-Propylbenzene	0.87	U *	0.87	0.15	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
sec-Butylbenzene	0.87	U *	0.87	0.25	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
tert-Butylbenzene	0.87	U *	0.87	0.24	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Tetrachloroethene	0.87	U	0.87	0.27	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Toluene	0.87	U	0.87	0.20	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
trans-1,2-Dichloroethene	0.87	U	0.87	0.21	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Trichloroethene	0.87	U	0.87	0.28	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Vinyl chloride	0.87	U	0.87	0.48	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1
Xylenes, Total	1.5	J	1.7	0.56	ug/Kg	✱	08/31/21 12:35	09/01/21 13:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 145	08/31/21 12:35	09/01/21 13:21	1
4-Bromofluorobenzene	117		70 - 139	08/31/21 12:35	09/01/21 13:21	1
Dibromofluoromethane (Surr)	113		48 - 150	08/31/21 12:35	09/01/21 13:21	1
Toluene-d8 (Surr)	112		80 - 120	08/31/21 12:35	09/01/21 13:21	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	40	U	40	35	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Acenaphthene	400	U	400	12	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Acenaphthylene	400	U	400	4.1	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Anthracene	400	U	400	12	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Benzo[a]anthracene	40	U	40	14	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Benzo[b]fluoranthene	40	U	40	10	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Benzo[k]fluoranthene	40	U	40	7.9	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 021_LB-37_15-16

Lab Sample ID: 460-241856-6

Date Collected: 08/30/21 11:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 81.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	400	U	400	6.8	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Dibenz(a,h)anthracene	40	U	40	18	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Dibenzofuran	400	U	400	5.7	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Fluoranthene	400	U	400	14	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Fluorene	400	U	400	5.5	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Naphthalene	400	U	400	7.0	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Pentachlorophenol	330	U	330	83	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Phenanthrene	400	U	400	7.1	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Phenol	400	U	400	15	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1
Pyrene	400	U	400	10	ug/Kg	✱	08/31/21 20:22	09/01/21 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	92		11 - 104	08/31/21 20:22	09/01/21 12:58	1
Phenol-d5 (Surr)	84		15 - 100	08/31/21 20:22	09/01/21 12:58	1
Terphenyl-d14 (Surr)	89		12 - 126	08/31/21 20:22	09/01/21 12:58	1
2,4,6-Tribromophenol (Surr)	97		10 - 123	08/31/21 20:22	09/01/21 12:58	1
2-Fluorophenol (Surr)	84		10 - 105	08/31/21 20:22	09/01/21 12:58	1
2-Fluorobiphenyl	81		14 - 103	08/31/21 20:22	09/01/21 12:58	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.2	U	8.2	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
4,4'-DDE	8.2	U	8.2	0.97	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
4,4'-DDT	8.2	U	8.2	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Aldrin	8.2	U	8.2	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
alpha-BHC	2.4	U	2.4	0.83	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
beta-BHC	2.4	U	2.4	0.92	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Chlordane (technical)	82	U	82	20	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Endosulfan I	8.2	U	8.2	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Endosulfan II	8.2	U	8.2	2.1	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Endosulfan sulfate	8.2	U	8.2	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Endrin	8.2	U	8.2	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Endrin aldehyde	8.2	U	8.2	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Endrin ketone	8.2	U	8.2	1.6	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
gamma-BHC (Lindane)	2.4	U	2.4	0.76	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Heptachlor	8.2	U	8.2	0.97	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Heptachlor epoxide	8.2	U	8.2	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Methoxychlor	8.2	U	8.2	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
Toxaphene	82	U	82	30	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1
cis-Chlordane	8.2	U	8.2	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 06:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		10 - 150	08/31/21 17:18	09/01/21 06:03	1
DCB Decachlorobiphenyl	73		10 - 150	08/31/21 17:18	09/01/21 06:03	1
Tetrachloro-m-xylene	78		10 - 133	08/31/21 17:18	09/01/21 06:03	1
Tetrachloro-m-xylene	70		10 - 133	08/31/21 17:18	09/01/21 06:03	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 021_LB-37_15-16

Lab Sample ID: 460-241856-6

Date Collected: 08/30/21 11:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 81.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Aroclor 1221	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Aroclor 1232	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Aroclor 1242	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Aroclor 1248	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Aroclor 1254	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Aroclor 1260	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Aroclor-1262	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Aroclor 1268	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1
Polychlorinated biphenyls, Total	82	U	82	22	ug/Kg	✱	08/31/21 17:12	09/01/21 10:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		37 - 150	08/31/21 17:12	09/01/21 10:34	1
DCB Decachlorobiphenyl	80		37 - 150	08/31/21 17:12	09/01/21 10:34	1
Tetrachloro-m-xylene	75		54 - 150	08/31/21 17:12	09/01/21 10:34	1
Tetrachloro-m-xylene	71		54 - 150	08/31/21 17:12	09/01/21 10:34	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	41	U	41	4.2	ug/Kg	✱	08/31/21 23:45	09/01/21 10:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	98		65 - 150	08/31/21 23:45	09/01/21 10:29	1
2,4-Dichlorophenylacetic acid	109		65 - 150	08/31/21 23:45	09/01/21 10:29	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluoroheptanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorooctanoic acid	0.34	J	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorononanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorodecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorotridecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorotetradecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorobutanesulfonic acid	2.38	U	2.38	0.48	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorohexanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorooctanesulfonic acid	0.62	J	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
NEtFOSAA	2.38	U	2.38	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
NMeFOSAA	2.38	U	2.38	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluoroheptanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorodecanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorooctanesulfonamide	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorobutanoic acid	2.38	U	2.38	0.95	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluoroundecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluorododecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
6:2 Fluorotelomer sulfonic acid	2.38	U	2.38	0.71	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
8:2 Fluorotelomer sulfonic acid	3.56	U	3.56	0.71	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1
Perfluoropentanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/01/21 10:53	09/05/21 15:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	129		10 - 178	09/01/21 10:53	09/05/21 15:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 021_LB-37_15-16

Lab Sample ID: 460-241856-6

Date Collected: 08/30/21 11:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 81.7

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	126		10 - 182	09/01/21 10:53	09/05/21 15:24	1
13C5 PFHxA	119		11 - 138	09/01/21 10:53	09/05/21 15:24	1
13C4 PFHpA	124		15 - 139	09/01/21 10:53	09/05/21 15:24	1
13C8 PFOA	130		21 - 133	09/01/21 10:53	09/05/21 15:24	1
13C9 PFNA	124		15 - 145	09/01/21 10:53	09/05/21 15:24	1
13C6 PFDA	124		21 - 134	09/01/21 10:53	09/05/21 15:24	1
13C7 PFUnA	128		15 - 138	09/01/21 10:53	09/05/21 15:24	1
13C2-PFDoDA	124		28 - 126	09/01/21 10:53	09/05/21 15:24	1
13C2 PFTeDA	124		10 - 138	09/01/21 10:53	09/05/21 15:24	1
13C3 PFBS	150 *		23 - 130	09/01/21 10:53	09/05/21 15:24	1
13C3 PFHxS	125		24 - 136	09/01/21 10:53	09/05/21 15:24	1
13C8 PFOS	129		31 - 130	09/01/21 10:53	09/05/21 15:24	1
d3-NMeFOSAA	88		10 - 172	09/01/21 10:53	09/05/21 15:24	1
d5-NEtFOSAA	96		10 - 176	09/01/21 10:53	09/05/21 15:24	1
13C8 FOSA	128		25 - 135	09/01/21 10:53	09/05/21 15:24	1
13C4 PFBA	122		12 - 137	09/01/21 10:53	09/05/21 15:24	1
13C5 PFPeA	130		12 - 135	09/01/21 10:53	09/05/21 15:24	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.10	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Arsenic	1.5		1.2	0.12	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Barium	19.7		2.3	0.17	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Beryllium	0.31	J	0.46	0.066	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Chromium	11.9		2.3	0.20	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Copper	7.5		2.3	0.25	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Manganese	131		4.6	0.47	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Nickel	9.9		2.3	0.22	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Lead	4.4		0.69	0.23	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Selenium	1.4	U	1.4	0.14	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1
Zinc	20.3		9.2	2.6	mg/Kg	✱	09/01/21 06:34	09/01/21 17:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0047	mg/Kg	✱	09/01/21 03:21	09/01/21 07:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.9		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	09/03/21 21:48	09/05/21 13:20	1
Percent Moisture	18.3		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	81.7		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 032_LB-29_5-7

Lab Sample ID: 460-241856-9

Date Collected: 08/30/21 14:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 85.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.87	U	0.87	0.20	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,1-Dichloroethane	0.87	U	0.87	0.18	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,1-Dichloroethene	0.87	U	0.87	0.20	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,2,4-Trimethylbenzene	0.87	U	0.87	0.21	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,2-Dichlorobenzene	0.87	U	0.87	0.32	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,2-Dichloroethane	0.87	U	0.87	0.26	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,3,5-Trimethylbenzene	0.87	U	0.87	0.27	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,3-Dichlorobenzene	0.87	U *	0.87	0.32	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,4-Dichlorobenzene	0.87	U	0.87	0.20	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
1,4-Dioxane	17	U	17	8.0	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
2-Butanone (MEK)	4.4	U	4.4	0.32	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Acetone	5.2	U	5.2	5.0	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Benzene	0.87	U	0.87	0.23	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Carbon tetrachloride	0.87	U	0.87	0.34	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Chlorobenzene	0.87	U	0.87	0.15	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Chloroform	0.87	U	0.87	0.85	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
cis-1,2-Dichloroethene	0.87	U	0.87	0.31	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Ethylbenzene	0.87	U	0.87	0.17	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Methyl tert-butyl ether	0.87	U	0.87	0.45	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Methylene Chloride	1.7	U	1.7	1.0	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
n-Butylbenzene	0.87	U	0.87	0.26	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
N-Propylbenzene	0.87	U *	0.87	0.15	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
sec-Butylbenzene	0.87	U *	0.87	0.25	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
tert-Butylbenzene	0.87	U *	0.87	0.24	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Tetrachloroethene	0.87	U	0.87	0.27	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Toluene	0.87	U	0.87	0.20	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
trans-1,2-Dichloroethene	0.87	U	0.87	0.21	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Trichloroethene	0.87	U	0.87	0.28	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Vinyl chloride	0.87	U	0.87	0.48	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1
Xylenes, Total	1.7	U	1.7	0.56	ug/Kg	☆	08/31/21 12:36	09/01/21 13:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		77 - 145	08/31/21 12:36	09/01/21 13:01	1
4-Bromofluorobenzene	118		70 - 139	08/31/21 12:36	09/01/21 13:01	1
Dibromofluoromethane (Surr)	120		48 - 150	08/31/21 12:36	09/01/21 13:01	1
Toluene-d8 (Surr)	119		80 - 120	08/31/21 12:36	09/01/21 13:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	39	U	39	34	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
2-Methylphenol	390	U	390	14	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
Acenaphthene	390	U	390	11	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
Acenaphthylene	390	U	390	3.9	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
Anthracene	390	U	390	12	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
Benzo[a]anthracene	39	U	39	13	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
Benzo[a]pyrene	39	U	39	10	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
Benzo[b]fluoranthene	18	J	39	10	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
Benzo[g,h,i]perylene	390	U	390	11	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1
Benzo[k]fluoranthene	39	U	39	7.6	ug/Kg	☆	08/31/21 20:22	09/01/21 13:15	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 032_LB-29_5-7

Lab Sample ID: 460-241856-9

Date Collected: 08/30/21 14:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 85.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	390	U	390	6.5	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Dibenzofuran	390	U	390	5.4	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Fluoranthene	23	J	390	13	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Fluorene	390	U	390	5.2	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Hexachlorobenzene	39	U	39	18	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Indeno[1,2,3-cd]pyrene	39	U	39	15	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Naphthalene	390	U	390	6.7	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Pentachlorophenol	310	U	310	79	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Phenanthrene	15	J	390	6.8	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Phenol	390	U	390	14	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1
Pyrene	20	J	390	9.6	ug/Kg	✱	08/31/21 20:22	09/01/21 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	90		11 - 104	08/31/21 20:22	09/01/21 13:15	1
Phenol-d5 (Surr)	83		15 - 100	08/31/21 20:22	09/01/21 13:15	1
Terphenyl-d14 (Surr)	87		12 - 126	08/31/21 20:22	09/01/21 13:15	1
2,4,6-Tribromophenol (Surr)	94		10 - 123	08/31/21 20:22	09/01/21 13:15	1
2-Fluorophenol (Surr)	83		10 - 105	08/31/21 20:22	09/01/21 13:15	1
2-Fluorobiphenyl	80		14 - 103	08/31/21 20:22	09/01/21 13:15	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
4,4'-DDE	7.8	U	7.8	0.92	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
4,4'-DDT	7.8	U	7.8	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
beta-BHC	2.3	U	2.3	0.88	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Chlordane (technical)	78	U	78	19	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Endrin	7.8	U	7.8	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Heptachlor	7.8	U	7.8	0.92	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
Toxaphene	78	U	78	28	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 07:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		10 - 150	08/31/21 17:18	09/01/21 07:17	1
DCB Decachlorobiphenyl	77		10 - 150	08/31/21 17:18	09/01/21 07:17	1
Tetrachloro-m-xylene	77		10 - 133	08/31/21 17:18	09/01/21 07:17	1
Tetrachloro-m-xylene	73		10 - 133	08/31/21 17:18	09/01/21 07:17	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 032_LB-29_5-7

Lab Sample ID: 460-241856-9

Date Collected: 08/30/21 14:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Aroclor 1221	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Aroclor 1232	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Aroclor 1242	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Aroclor 1248	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Aroclor 1254	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Aroclor 1260	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Aroclor-1262	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Aroclor 1268	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	✱	08/31/21 17:12	09/01/21 10:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		37 - 150	08/31/21 17:12	09/01/21 10:51	1
DCB Decachlorobiphenyl	74		37 - 150	08/31/21 17:12	09/01/21 10:51	1
Tetrachloro-m-xylene	70		54 - 150	08/31/21 17:12	09/01/21 10:51	1
Tetrachloro-m-xylene	67		54 - 150	08/31/21 17:12	09/01/21 10:51	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.0	ug/Kg	✱	08/31/21 23:45	09/01/21 10:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	100		65 - 150	08/31/21 23:45	09/01/21 10:43	1
2,4-Dichlorophenylacetic acid	115		65 - 150	08/31/21 23:45	09/01/21 10:43	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluoroheptanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorooctanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorononanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorodecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorotridecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorotetradecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorobutanesulfonic acid	2.14	U	2.14	0.43	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorohexanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorooctanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
NEtFOSAA	2.14	U	2.14	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
NMeFOSAA	2.14	U	2.14	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluoroheptanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorodecanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorooctanesulfonamide	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorobutanoic acid	2.14	U	2.14	0.86	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluoroundecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluorododecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
6:2 Fluorotelomer sulfonic acid	2.14	U	2.14	0.64	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
8:2 Fluorotelomer sulfonic acid	3.21	U	3.21	0.64	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1
Perfluoropentanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/01/21 10:53	09/05/21 15:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	128		10 - 178	09/01/21 10:53	09/05/21 15:35	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 032_LB-29_5-7

Lab Sample ID: 460-241856-9

Date Collected: 08/30/21 14:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 85.7

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	116		10 - 182	09/01/21 10:53	09/05/21 15:35	1
13C5 PFHxA	112		11 - 138	09/01/21 10:53	09/05/21 15:35	1
13C4 PFHpA	126		15 - 139	09/01/21 10:53	09/05/21 15:35	1
13C8 PFOA	128		21 - 133	09/01/21 10:53	09/05/21 15:35	1
13C9 PFNA	117		15 - 145	09/01/21 10:53	09/05/21 15:35	1
13C6 PFDA	125		21 - 134	09/01/21 10:53	09/05/21 15:35	1
13C7 PFUnA	134		15 - 138	09/01/21 10:53	09/05/21 15:35	1
13C2-PFDoDA	140 *		28 - 126	09/01/21 10:53	09/05/21 15:35	1
13C2 PFTeDA	129		10 - 138	09/01/21 10:53	09/05/21 15:35	1
13C3 PFBS	154 *		23 - 130	09/01/21 10:53	09/05/21 15:35	1
13C3 PFHxS	127		24 - 136	09/01/21 10:53	09/05/21 15:35	1
13C8 PFOS	127		31 - 130	09/01/21 10:53	09/05/21 15:35	1
d3-NMeFOSAA	80		10 - 172	09/01/21 10:53	09/05/21 15:35	1
d5-NEtFOSAA	85		10 - 176	09/01/21 10:53	09/05/21 15:35	1
13C8 FOSA	129		25 - 135	09/01/21 10:53	09/05/21 15:35	1
13C4 PFBA	113		12 - 137	09/01/21 10:53	09/05/21 15:35	1
13C5 PFPeA	115		12 - 135	09/01/21 10:53	09/05/21 15:35	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.10	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Arsenic	1.3		1.1	0.11	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Barium	31.0		2.2	0.16	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Beryllium	0.24	J	0.45	0.064	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Chromium	9.4		2.2	0.20	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Copper	8.0		2.2	0.25	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Manganese	84.0		4.5	0.45	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Nickel	8.9		2.2	0.22	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Lead	22.2		0.67	0.22	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1
Zinc	33.7		9.0	2.6	mg/Kg	✱	09/01/21 06:34	09/01/21 17:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.28		0.018	0.0042	mg/Kg	✱	09/01/21 03:21	09/01/21 07:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.4		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.23	U	0.23	0.13	mg/Kg	✱	09/03/21 21:48	09/05/21 13:25	1
Percent Moisture	14.3		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	85.7		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 033_LB-29_15-16

Lab Sample ID: 460-241856-10

Date Collected: 08/30/21 14:25

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.86	U	0.86	0.20	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,1-Dichloroethane	0.86	U	0.86	0.18	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,1-Dichloroethene	0.86	U	0.86	0.19	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,2,4-Trimethylbenzene	0.86	U	0.86	0.21	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,2-Dichlorobenzene	0.86	U	0.86	0.31	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,2-Dichloroethane	0.86	U	0.86	0.25	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,3,5-Trimethylbenzene	0.86	U	0.86	0.27	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,3-Dichlorobenzene	0.86	U *	0.86	0.31	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,4-Dichlorobenzene	0.86	U	0.86	0.19	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
1,4-Dioxane	17	U	17	7.9	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
2-Butanone (MEK)	4.3	U	4.3	0.32	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Acetone	6.0		5.2	4.9	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Benzene	0.86	U	0.86	0.22	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Carbon tetrachloride	0.86	U	0.86	0.33	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Chlorobenzene	0.86	U	0.86	0.15	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Chloroform	0.86	U	0.86	0.84	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
cis-1,2-Dichloroethene	0.86	U	0.86	0.31	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Ethylbenzene	0.86	U	0.86	0.17	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Methyl tert-butyl ether	0.86	U	0.86	0.44	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Methylene Chloride	1.7	U	1.7	0.99	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
n-Butylbenzene	0.86	U	0.86	0.25	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
N-Propylbenzene	0.86	U *	0.86	0.15	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
sec-Butylbenzene	0.86	U *	0.86	0.25	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
tert-Butylbenzene	0.86	U *	0.86	0.24	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Tetrachloroethene	0.86	U	0.86	0.26	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Toluene	0.86	U	0.86	0.20	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
trans-1,2-Dichloroethene	0.86	U	0.86	0.21	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Trichloroethene	0.86	U	0.86	0.28	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Vinyl chloride	0.86	U	0.86	0.47	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1
Xylenes, Total	1.7	U	1.7	0.55	ug/Kg	✱	08/31/21 12:37	09/01/21 12:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		77 - 145	08/31/21 12:37	09/01/21 12:41	1
4-Bromofluorobenzene	115		70 - 139	08/31/21 12:37	09/01/21 12:41	1
Dibromofluoromethane (Surr)	113		48 - 150	08/31/21 12:37	09/01/21 12:41	1
Toluene-d8 (Surr)	112		80 - 120	08/31/21 12:37	09/01/21 12:41	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	39	U	39	34	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
2-Methylphenol	390	U	390	15	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
3 & 4 Methylphenol	390	U	390	25	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Acenaphthene	390	U	390	11	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Acenaphthylene	390	U	390	4.0	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Anthracene	390	U	390	12	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Benzo[a]anthracene	39	U	39	14	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Benzo[a]pyrene	39	U	39	11	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Benzo[b]fluoranthene	39	U	39	10	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Benzo[g,h,i]perylene	390	U	390	12	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Benzo[k]fluoranthene	39	U	39	7.7	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 033_LB-29_15-16

Lab Sample ID: 460-241856-10

Date Collected: 08/30/21 14:25

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	390	U	390	6.7	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Dibenzofuran	390	U	390	5.5	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Fluoranthene	390	U	390	14	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Fluorene	390	U	390	5.4	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Hexachlorobenzene	39	U	39	19	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Indeno[1,2,3-cd]pyrene	39	U	39	15	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Naphthalene	390	U	390	6.8	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Pentachlorophenol	320	U	320	81	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Phenanthrene	390	U	390	6.9	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Phenol	390	U	390	15	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1
Pyrene	390	U	390	9.8	ug/Kg	✱	08/31/21 20:22	09/01/21 13:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	91		11 - 104	08/31/21 20:22	09/01/21 13:32	1
Phenol-d5 (Surr)	81		15 - 100	08/31/21 20:22	09/01/21 13:32	1
Terphenyl-d14 (Surr)	89		12 - 126	08/31/21 20:22	09/01/21 13:32	1
2,4,6-Tribromophenol (Surr)	94		10 - 123	08/31/21 20:22	09/01/21 13:32	1
2-Fluorophenol (Surr)	82		10 - 105	08/31/21 20:22	09/01/21 13:32	1
2-Fluorobiphenyl	80		14 - 103	08/31/21 20:22	09/01/21 13:32	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.0	U	8.0	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
4,4'-DDE	8.0	U	8.0	0.94	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
4,4'-DDT	8.0	U	8.0	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Aldrin	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
alpha-BHC	2.4	U	2.4	0.81	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
beta-BHC	2.4	U	2.4	0.89	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Chlordane (technical)	80	U	80	19	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Endosulfan I	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Endosulfan II	8.0	U	8.0	2.1	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Endosulfan sulfate	8.0	U	8.0	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Endrin	8.0	U	8.0	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Endrin aldehyde	8.0	U	8.0	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Endrin ketone	8.0	U	8.0	1.6	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
gamma-BHC (Lindane)	2.4	U	2.4	0.74	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Heptachlor	8.0	U	8.0	0.94	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Heptachlor epoxide	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Methoxychlor	8.0	U	8.0	1.8	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
Toxaphene	80	U	80	29	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1
cis-Chlordane	8.0	U	8.0	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 07:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	80		10 - 150	08/31/21 17:18	09/01/21 07:33	1
DCB Decachlorobiphenyl	78		10 - 150	08/31/21 17:18	09/01/21 07:33	1
Tetrachloro-m-xylene	79		10 - 133	08/31/21 17:18	09/01/21 07:33	1
Tetrachloro-m-xylene	75		10 - 133	08/31/21 17:18	09/01/21 07:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 033_LB-29_15-16

Lab Sample ID: 460-241856-10

Date Collected: 08/30/21 14:25

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Aroclor 1221	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Aroclor 1232	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Aroclor 1242	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Aroclor 1248	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Aroclor 1254	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Aroclor 1260	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Aroclor-1262	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Aroclor 1268	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1
Polychlorinated biphenyls, Total	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		37 - 150	08/31/21 17:12	09/01/21 11:08	1
DCB Decachlorobiphenyl	90		37 - 150	08/31/21 17:12	09/01/21 11:08	1
Tetrachloro-m-xylene	84		54 - 150	08/31/21 17:12	09/01/21 11:08	1
Tetrachloro-m-xylene	80		54 - 150	08/31/21 17:12	09/01/21 11:08	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.1	ug/Kg	✱	08/31/21 23:45	09/01/21 11:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	92		65 - 150	08/31/21 23:45	09/01/21 11:56	1
2,4-Dichlorophenylacetic acid	115		65 - 150	08/31/21 23:45	09/01/21 11:56	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluoroheptanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorooctanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorononanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorodecanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorotridecanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorotetradecanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorobutanesulfonic acid	0.15	U	0.15	0.030	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorohexanesulfonic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorooctanesulfonic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
NEtFOSAA	0.15	U	0.15	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
NMeFOSAA	0.15	U	0.15	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluoroheptanesulfonic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorodecanesulfonic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorooctanesulfonamide	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorobutanoic acid	0.15	U	0.15	0.060	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluoroundecanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluorododecanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
6:2 Fluorotelomer sulfonic acid	0.15	U	0.15	0.045	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
8:2 Fluorotelomer sulfonic acid	0.22	U	0.22	0.045	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1
Perfluoropentanoic acid	0.045	U	0.045	0.015	ug/Kg	✱	09/09/21 12:10	09/10/21 14:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	36		10 - 178	09/09/21 12:10	09/10/21 14:26	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 033_LB-29_15-16

Lab Sample ID: 460-241856-10

Date Collected: 08/30/21 14:25

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.8

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	36		10 - 182	09/09/21 12:10	09/10/21 14:26	1
13C5 PFHxA	33		11 - 138	09/09/21 12:10	09/10/21 14:26	1
13C4 PFHpA	34		15 - 139	09/09/21 12:10	09/10/21 14:26	1
13C8 PFOA	33		21 - 133	09/09/21 12:10	09/10/21 14:26	1
13C9 PFNA	32		15 - 145	09/09/21 12:10	09/10/21 14:26	1
13C6 PFDA	32		21 - 134	09/09/21 12:10	09/10/21 14:26	1
13C7 PFUnA	31		15 - 138	09/09/21 12:10	09/10/21 14:26	1
13C2-PFDoDA	30		28 - 126	09/09/21 12:10	09/10/21 14:26	1
13C2 PFTeDA	34		10 - 138	09/09/21 12:10	09/10/21 14:26	1
13C3 PFBS	36		23 - 130	09/09/21 12:10	09/10/21 14:26	1
13C3 PFHxS	35		24 - 136	09/09/21 12:10	09/10/21 14:26	1
13C8 PFOS	33		31 - 130	09/09/21 12:10	09/10/21 14:26	1
d3-NMeFOSAA	17		10 - 172	09/09/21 12:10	09/10/21 14:26	1
d5-NEtFOSAA	17		10 - 176	09/09/21 12:10	09/10/21 14:26	1
13C8 FOSA	32		25 - 135	09/09/21 12:10	09/10/21 14:26	1
13C4 PFBA	32		12 - 137	09/09/21 12:10	09/10/21 14:26	1
13C5 PFPeA	30		12 - 135	09/09/21 12:10	09/10/21 14:26	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.099	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Arsenic	1.2		1.1	0.11	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Barium	39.0		2.2	0.16	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Beryllium	0.22	J	0.45	0.064	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Chromium	10.7		2.2	0.19	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Copper	7.6		2.2	0.25	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Manganese	81.7		4.5	0.45	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Nickel	8.0		2.2	0.22	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Lead	28.0		0.67	0.22	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1
Zinc	30.2		8.9	2.6	mg/Kg	✱	09/01/21 06:34	09/01/21 17:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.45		0.019	0.0044	mg/Kg	✱	09/01/21 03:37	09/01/21 08:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.7		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	09/03/21 21:48	09/05/21 13:30	1
Percent Moisture	16.2		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	83.8		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 035_LB-30_16-17

Lab Sample ID: 460-241856-12

Date Collected: 08/30/21 14:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.85	U	0.85	0.20	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,1-Dichloroethane	0.85	U	0.85	0.18	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,1-Dichloroethene	0.85	U	0.85	0.19	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,2,4-Trimethylbenzene	0.85	U	0.85	0.21	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,2-Dichlorobenzene	0.85	U	0.85	0.31	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,2-Dichloroethane	0.85	U	0.85	0.25	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,3,5-Trimethylbenzene	0.85	U	0.85	0.27	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,3-Dichlorobenzene	0.85	U	0.85	0.31	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,4-Dichlorobenzene	0.85	U	0.85	0.19	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
1,4-Dioxane	17	U	17	7.8	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
2-Butanone (MEK)	4.3	U	4.3	0.31	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Acetone	11		5.1	4.9	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Benzene	0.85	U	0.85	0.22	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Carbon tetrachloride	0.85	U	0.85	0.33	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Chlorobenzene	0.85	U	0.85	0.15	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Chloroform	0.85	U	0.85	0.83	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
cis-1,2-Dichloroethene	0.85	U	0.85	0.31	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Ethylbenzene	0.85	U	0.85	0.17	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Methyl tert-butyl ether	0.85	U	0.85	0.44	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Methylene Chloride	1.1	J	1.7	0.98	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
n-Butylbenzene	0.85	U	0.85	0.25	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
N-Propylbenzene	0.85	U	0.85	0.15	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
sec-Butylbenzene	0.85	U	0.85	0.25	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
tert-Butylbenzene	0.85	U	0.85	0.24	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Tetrachloroethene	0.85	U	0.85	0.26	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Toluene	0.85	U	0.85	0.20	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
trans-1,2-Dichloroethene	0.85	U	0.85	0.21	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Trichloroethene	0.85	U	0.85	0.27	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Vinyl chloride	0.85	U	0.85	0.47	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1
Xylenes, Total	1.7	U	1.7	0.55	ug/Kg	✱	08/31/21 12:39	09/01/21 01:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 145	08/31/21 12:39	09/01/21 01:41	1
4-Bromofluorobenzene	127		70 - 139	08/31/21 12:39	09/01/21 01:41	1
Dibromofluoromethane (Surr)	119		48 - 150	08/31/21 12:39	09/01/21 01:41	1
Toluene-d8 (Surr)	116		80 - 120	08/31/21 12:39	09/01/21 01:41	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	40	U	40	35	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Acenaphthene	400	U	400	11	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Acenaphthylene	400	U	400	4.0	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Anthracene	13	J	400	12	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Benzo[a]anthracene	59		40	14	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Benzo[a]pyrene	51		40	11	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Benzo[b]fluoranthene	75		40	10	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Benzo[g,h,i]perylene	19	J	400	12	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Benzo[k]fluoranthene	26	J	40	7.8	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 035_LB-30_16-17

Lab Sample ID: 460-241856-12

Date Collected: 08/30/21 14:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	50	J	400	6.7	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Dibenzofuran	400	U	400	5.6	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Fluoranthene	100	J	400	14	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Fluorene	400	U	400	5.4	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Indeno[1,2,3-cd]pyrene	28	J	40	15	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Naphthalene	400	U	400	6.8	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Pentachlorophenol	320	U	320	81	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Phenanthrene	70	J	400	7.0	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Phenol	400	U	400	15	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1
Pyrene	95	J	400	9.9	ug/Kg	✱	08/31/21 20:30	09/01/21 11:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	76		11 - 104	08/31/21 20:30	09/01/21 11:56	1
Phenol-d5 (Surr)	72		15 - 100	08/31/21 20:30	09/01/21 11:56	1
Terphenyl-d14 (Surr)	85		12 - 126	08/31/21 20:30	09/01/21 11:56	1
2,4,6-Tribromophenol (Surr)	77		10 - 123	08/31/21 20:30	09/01/21 11:56	1
2-Fluorophenol (Surr)	76		10 - 105	08/31/21 20:30	09/01/21 11:56	1
2-Fluorobiphenyl	76		14 - 103	08/31/21 20:30	09/01/21 11:56	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.0	U	8.0	1.4	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
4,4'-DDE	8.0	U	8.0	0.95	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
4,4'-DDT	8.0	U	8.0	1.5	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Aldrin	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
alpha-BHC	2.4	U	2.4	0.81	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
beta-BHC	2.4	U	2.4	0.90	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Chlordane (technical)	80	U	80	19	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Endosulfan I	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Endosulfan II	8.0	U	8.0	2.1	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Endosulfan sulfate	8.0	U	8.0	1.0	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Endrin	8.0	U	8.0	1.1	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Endrin aldehyde	8.0	U	8.0	1.9	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Endrin ketone	8.0	U	8.0	1.6	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
gamma-BHC (Lindane)	2.4	U	2.4	0.74	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Heptachlor	8.0	U	8.0	0.95	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Heptachlor epoxide	8.0	U	8.0	1.2	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Methoxychlor	8.0	U	8.0	1.8	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
Toxaphene	80	U	80	29	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1
cis-Chlordane	8.0	U	8.0	1.3	ug/Kg	✱	08/31/21 17:18	09/01/21 08:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	08/31/21 17:18	09/01/21 08:05	1
DCB Decachlorobiphenyl	82		10 - 150	08/31/21 17:18	09/01/21 08:05	1
Tetrachloro-m-xylene	84		10 - 133	08/31/21 17:18	09/01/21 08:05	1
Tetrachloro-m-xylene	78		10 - 133	08/31/21 17:18	09/01/21 08:05	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 035_LB-30_16-17

Lab Sample ID: 460-241856-12

Date Collected: 08/30/21 14:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Aroclor 1221	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Aroclor 1232	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Aroclor 1242	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Aroclor 1248	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Aroclor 1254	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Aroclor 1260	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Aroclor-1262	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Aroclor 1268	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1
Polychlorinated biphenyls, Total	80	U	80	21	ug/Kg	✱	08/31/21 17:12	09/01/21 11:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		37 - 150	08/31/21 17:12	09/01/21 11:42	1
DCB Decachlorobiphenyl	82		37 - 150	08/31/21 17:12	09/01/21 11:42	1
Tetrachloro-m-xylene	77		54 - 150	08/31/21 17:12	09/01/21 11:42	1
Tetrachloro-m-xylene	74		54 - 150	08/31/21 17:12	09/01/21 11:42	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	✱	09/03/21 00:12	09/03/21 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	118		65 - 150	09/03/21 00:12	09/03/21 17:09	1
2,4-Dichlorophenylacetic acid	116		65 - 150	09/03/21 00:12	09/03/21 17:09	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluoroheptanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorooctanoic acid	0.44	J	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorononanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorodecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorotridecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorotetradecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorobutanesulfonic acid	2.18	U	2.18	0.44	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorohexanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorooctanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
NEtFOSAA	2.18	U	2.18	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
NMeFOSAA	2.18	U	2.18	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluoroheptanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorodecanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorooctanesulfonamide	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorobutanoic acid	2.18	U	2.18	0.87	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluoroundecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluorododecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
6:2 Fluorotelomer sulfonic acid	2.18	U	2.18	0.65	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
8:2 Fluorotelomer sulfonic acid	3.27	U	3.27	0.65	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1
Perfluoropentanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/01/21 10:53	09/05/21 15:57	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	88		10 - 178	09/01/21 10:53	09/05/21 15:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 035_LB-30_16-17

Lab Sample ID: 460-241856-12

Date Collected: 08/30/21 14:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.5

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	80		10 - 182	09/01/21 10:53	09/05/21 15:57	1
13C5 PFHxA	90		11 - 138	09/01/21 10:53	09/05/21 15:57	1
13C4 PFHpA	94		15 - 139	09/01/21 10:53	09/05/21 15:57	1
13C8 PFOA	99		21 - 133	09/01/21 10:53	09/05/21 15:57	1
13C9 PFNA	97		15 - 145	09/01/21 10:53	09/05/21 15:57	1
13C6 PFDA	96		21 - 134	09/01/21 10:53	09/05/21 15:57	1
13C7 PFUnA	98		15 - 138	09/01/21 10:53	09/05/21 15:57	1
13C2-PFDoDA	101		28 - 126	09/01/21 10:53	09/05/21 15:57	1
13C2 PFTeDA	102		10 - 138	09/01/21 10:53	09/05/21 15:57	1
13C3 PFBS	115		23 - 130	09/01/21 10:53	09/05/21 15:57	1
13C3 PFHxS	105		24 - 136	09/01/21 10:53	09/05/21 15:57	1
13C8 PFOS	104		31 - 130	09/01/21 10:53	09/05/21 15:57	1
d3-NMeFOSAA	48		10 - 172	09/01/21 10:53	09/05/21 15:57	1
d5-NEtFOSAA	58		10 - 176	09/01/21 10:53	09/05/21 15:57	1
13C8 FOSA	98		25 - 135	09/01/21 10:53	09/05/21 15:57	1
13C4 PFBA	83		12 - 137	09/01/21 10:53	09/05/21 15:57	1
13C5 PFPeA	89		12 - 135	09/01/21 10:53	09/05/21 15:57	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Arsenic	1.2		1.2	0.12	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Barium	14.0		2.4	0.17	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Beryllium	0.17	J	0.47	0.068	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Chromium	7.7		2.4	0.21	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Copper	6.7		2.4	0.26	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Manganese	106		4.7	0.48	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Nickel	6.4		2.4	0.23	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Lead	9.2		0.71	0.24	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1
Zinc	16.9		9.5	2.7	mg/Kg	✱	09/01/21 06:34	09/01/21 17:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0047	mg/Kg	✱	09/01/21 03:37	09/01/21 08:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	7.7		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/05/21 09:28	09/05/21 15:30	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	09/03/21 21:48	09/05/21 13:31	1
Percent Moisture	16.5		1.0	1.0	%			08/31/21 11:54	1
Percent Solids	83.5		1.0	1.0	%			08/31/21 11:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 036_TB-1B

Lab Sample ID: 460-241856-13

Date Collected: 08/30/21 00:00

Matrix: Water

Date Received: 08/30/21 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/02/21 12:26	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/02/21 12:26	1
Acetone	5.0	U	5.0	4.4	ug/L			09/02/21 12:26	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/21 12:26	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/02/21 12:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/02/21 12:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/02/21 12:26	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/02/21 12:26	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/02/21 12:26	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/02/21 12:26	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/21 12:26	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/02/21 12:26	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/02/21 12:26	1
Benzene	1.0	U	1.0	0.20	ug/L			09/02/21 12:26	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/02/21 12:26	1
Toluene	1.0	U	1.0	0.38	ug/L			09/02/21 12:26	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/02/21 12:26	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/02/21 12:26	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/02/21 12:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/02/21 12:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/02/21 12:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/02/21 12:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/02/21 12:26	1
1,4-Dioxane	50	U	50	28	ug/L			09/02/21 12:26	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/02/21 12:26	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/02/21 12:26	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/02/21 12:26	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/02/21 12:26	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/02/21 12:26	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/02/21 12:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 123		09/02/21 12:26	1
Toluene-d8 (Surr)	91		80 - 120		09/02/21 12:26	1
4-Bromofluorobenzene	110		76 - 120		09/02/21 12:26	1
Dibromofluoromethane (Surr)	111		77 - 124		09/02/21 12:26	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-241856-1	016_LB-35_15-16	113	126	119	113
460-241856-2	017_LB-35_5-7	117	123	122	117
460-241856-3	018_LB-36_5-7	113	119	117	116
460-241856-4	019_LB-36_15-16	114	128	120	114
460-241856-5	020_LB-28_5-7	119	128	124	116
460-241856-6	021_LB-37_15-16	113	117	113	112
460-241856-9	032_LB-29_5-7	120	118	120	119
460-241856-10	033_LB-29_15-16	119	115	113	112
460-241856-12	035_LB-30_16-17	113	127	119	116
LCS 460-799122/3	Lab Control Sample	107	124	113	113
LCS 460-799252/4	Lab Control Sample	104	118	109	109
LCSD 460-799122/5	Lab Control Sample Dup	104	117	108	110
LCSD 460-799252/11	Lab Control Sample Dup	116	120	117	121 *
MB 460-799122/8	Method Blank	112	121	116	110
MB 460-799252/7	Method Blank	114	118	117	114

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	BFB (76-120)	TOL (80-120)	DBFM (77-124)
460-241844-C-1 MS	Matrix Spike	94	113	96	107
460-241844-C-1 MSD	Matrix Spike Duplicate	97	112	97	107
460-241856-13	036_TB-1B	101	110	91	111
LCS 460-799422/4	Lab Control Sample	102	113	96	112
MB 460-799422/8	Method Blank	94	106	92	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-241746-E-1-B MS	Matrix Spike	96	88	91	100	87	85
460-241746-E-1-C MSD	Matrix Spike Duplicate	94	87	90	100	86	84
460-241854-E-1-A MS	Matrix Spike	73	75	82	79	74	73
460-241854-E-1-B MSD	Matrix Spike Duplicate	79	80	83	78	80	76
460-241856-1	016_LB-35_15-16	98	85	90	97	86	85

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-241856-2	017_LB-35_5-7	95	85	90	97	87	83
460-241856-3	018_LB-36_5-7	96	86	92	96	87	82
460-241856-4	019_LB-36_15-16	86	77	82	88	78	74
460-241856-5	020_LB-28_5-7	93	84	91	94	86	80
460-241856-6	021_LB-37_15-16	92	84	89	97	84	81
460-241856-9	032_LB-29_5-7	90	83	87	94	83	80
460-241856-10	033_LB-29_15-16	91	81	89	94	82	80
460-241856-12	035_LB-30_16-17	76	72	85	77	76	76
LCS 460-799162/2-A	Lab Control Sample	91	80	92	100	78	80
LCS 460-799163/2-A	Lab Control Sample	81	80	89	83	76	77
LCSD 460-799162/3-A	Lab Control Sample Dup	92	83	91	98	83	82
LCSD 460-799163/3-A	Lab Control Sample Dup	80	81	87	84	77	77
MB 460-799162/1-A	Method Blank	96	83	96	95	84	83
MB 460-799163/1-A	Method Blank	86	78	95	83	81	81

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-241856-1	016_LB-35_15-16	56	61	55	58
460-241856-2	017_LB-35_5-7	67	68	62	69
460-241856-3	018_LB-36_5-7	71	73	67	73
460-241856-4	019_LB-36_15-16	69	77	66	70
460-241856-5	020_LB-28_5-7	76	75	70	74
460-241856-6	021_LB-37_15-16	73	74	70	78
460-241856-9	032_LB-29_5-7	77	74	73	77
460-241856-10	033_LB-29_15-16	78	80	75	79
460-241856-12	035_LB-30_16-17	82	85	78	84
LCS 460-799143/2-A	Lab Control Sample	83	79	85	78
LCSD 460-799143/3-A	Lab Control Sample Dup	85	78	87	77
MB 460-799143/1-A	Method Blank	96	91	88	89

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-241582-A-1-D MS	Matrix Spike	62	61	55	57
460-241582-A-1-E MSD	Matrix Spike Duplicate	62	62	56	59
460-241856-1	016_LB-35_15-16	84	82	77	81
460-241856-2	017_LB-35_5-7	86	82	75	79
460-241856-3	018_LB-36_5-7	88	87	79	83
460-241856-4	019_LB-36_15-16	75	73	66	69
460-241856-5	020_LB-28_5-7	87	86	78	82
460-241856-6	021_LB-37_15-16	80	79	71	75
460-241856-9	032_LB-29_5-7	74	75	67	70
460-241856-10	033_LB-29_15-16	90	89	80	84
460-241856-12	035_LB-30_16-17	82	82	74	77
LCS 460-799141/2-A	Lab Control Sample	84	82	75	77
LCSD 460-799141/3-A	Lab Control Sample Dup	85	81	75	76
MB 460-799141/1-A	Method Blank	121	122	108	113
Surrogate Legend					
DCBP = DCB Decachlorobiphenyl					
TCX = Tetrachloro-m-xylene					

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-241856-1	016_LB-35_15-16	94	111
460-241856-2	017_LB-35_5-7	99	112
460-241856-3	018_LB-36_5-7	112	128
460-241856-4	019_LB-36_15-16	101	115
460-241856-5	020_LB-28_5-7	100	117
460-241856-6	021_LB-37_15-16	98	109
460-241856-9	032_LB-29_5-7	100	115
460-241856-10	033_LB-29_15-16	92	115
460-241856-12	035_LB-30_16-17	116	118
460-241982-B-5-B MSD	Matrix Spike Duplicate	117	118
460-241982-C-5-B MS	Matrix Spike	114	116
LCS 460-799184/2-A	Lab Control Sample	104	124
LCS 460-799564/2-A	Lab Control Sample	111	114
LCSD 460-799184/3-A	Lab Control Sample Dup	102	124
LCSD 460-799564/3-A	Lab Control Sample Dup	112	116
MB 460-799184/1-A	Method Blank	93	114
MB 460-799564/1-A	Method Blank	101	110
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-241856-1	016_LB-35_15-16	125	123	113	126	129	134	128	132
460-241856-2	017_LB-35_5-7	119	109	103	109	113	111	110	118
460-241856-3	018_LB-36_5-7	106	119	112	119	126	121	118	122
460-241856-4	019_LB-36_15-16	123	116	124	118	130	124	122	130
460-241856-5	020_LB-28_5-7	39	37	32	33	35	34	33	30
460-241856-6	021_LB-37_15-16	129	126	119	124	130	124	124	128
460-241856-9	032_LB-29_5-7	128	116	112	126	128	117	125	134
460-241856-10	033_LB-29_15-16	36	36	33	34	33	32	32	31
460-241856-12	035_LB-30_16-17	88	80	90	94	99	97	96	98
LCS 410-166935/2-B	Lab Control Sample	112	110	109	112	122	118	110	119
LCS 410-169575/2-B	Lab Control Sample	36	39	34	32	35	33	35	34
LCSD 410-166935/3-B	Lab Control Sample Dup	127	121	119	118	130	126	128	138
LCSD 410-169575/3-B	Lab Control Sample Dup	36	38	33	32	36	32	35	33
MB 410-166935/1-B	Method Blank	93	94	96	100	110	102	103	111
MB 410-169575/1-B	Method Blank	37	40	34	34	36	35	36	34
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-241856-1	016_LB-35_15-16	131 *	124	151 *	126	130	128	137	125
460-241856-2	017_LB-35_5-7	108	107	128	110	110	110	135	101
460-241856-3	018_LB-36_5-7	117	115	146 *	120	122	99	106	113
460-241856-4	019_LB-36_15-16	113	121	135 *	119	124	121	135	115
460-241856-5	020_LB-28_5-7	30	32	39	35	35	13	15	29
460-241856-6	021_LB-37_15-16	124	124	150 *	125	129	88	96	128
460-241856-9	032_LB-29_5-7	140 *	129	154 *	127	127	80	85	129
460-241856-10	033_LB-29_15-16	30	34	36	35	33	17	17	32
460-241856-12	035_LB-30_16-17	101	102	115	105	104	48	58	98
LCS 410-166935/2-B	Lab Control Sample	113	115	143 *	116	114	120	122	105
LCS 410-169575/2-B	Lab Control Sample	33	35	40	34	34	28	26	33
LCSD 410-166935/3-B	Lab Control Sample Dup	126	125	149 *	125	122	136	132	126
LCSD 410-169575/3-B	Lab Control Sample Dup	33	33	38	33	33	28	26	34
MB 410-166935/1-B	Method Blank	103	104	120	99	99	103	111	86
MB 410-169575/1-B	Method Blank	31	38	38	34	36	27	27	34
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)						
460-241856-1	016_LB-35_15-16	125	134						
460-241856-2	017_LB-35_5-7	110	112						
460-241856-3	018_LB-36_5-7	115	122						
460-241856-4	019_LB-36_15-16	116	122						
460-241856-5	020_LB-28_5-7	31	30						
460-241856-6	021_LB-37_15-16	122	130						
460-241856-9	032_LB-29_5-7	113	115						
460-241856-10	033_LB-29_15-16	32	30						
460-241856-12	035_LB-30_16-17	83	89						
LCS 410-166935/2-B	Lab Control Sample	115	116						
LCS 410-169575/2-B	Lab Control Sample	33	34						
LCSD 410-166935/3-B	Lab Control Sample Dup	123	128						
LCSD 410-169575/3-B	Lab Control Sample Dup	33	33						

Eurofins Edison

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)
MB 410-166935/1-B	Method Blank	96	100
MB 410-169575/1-B	Method Blank	34	34
Surrogate Legend			
M282FTS = M2-8:2 FTS			
M262FTS = M2-6:2 FTS			
13C5PHA = 13C5 PFHxA			
C4PFHA = 13C4 PFHpA			
C8PFOA = 13C8 PFOA			
C9PFNA = 13C9 PFNA			
C6PFDA = 13C6 PFDA			
13C7PUA = 13C7 PFUnA			
PFDoDA = 13C2-PFDoDA			
PFTDA = 13C2 PFTeDA			
C3PFBS = 13C3 PFBS			
C3PFHS = 13C3 PFHxS			
C8PFOS = 13C8 PFOS			
d3NMFOS = d3-NMeFOSAA			
d5NEFOS = d5-NEtFOSAA			
PFOSA = 13C8 FOSA			
PFBA = 13C4 PFBA			
PFPeA = 13C5 PFPeA			

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-799122/8

Matrix: Solid

Analysis Batch: 799122

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			08/31/21 20:34	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			08/31/21 20:34	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			08/31/21 20:34	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			08/31/21 20:34	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			08/31/21 20:34	1
Acetone	6.0	U	6.0	5.7	ug/Kg			08/31/21 20:34	1
Benzene	1.0	U	1.0	0.26	ug/Kg			08/31/21 20:34	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			08/31/21 20:34	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			08/31/21 20:34	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			08/31/21 20:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			08/31/21 20:34	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			08/31/21 20:34	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			08/31/21 20:34	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			08/31/21 20:34	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			08/31/21 20:34	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			08/31/21 20:34	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			08/31/21 20:34	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			08/31/21 20:34	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			08/31/21 20:34	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			08/31/21 20:34	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			08/31/21 20:34	1
Toluene	1.0	U	1.0	0.23	ug/Kg			08/31/21 20:34	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			08/31/21 20:34	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			08/31/21 20:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			08/31/21 20:34	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			08/31/21 20:34	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			08/31/21 20:34	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			08/31/21 20:34	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			08/31/21 20:34	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			08/31/21 20:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 145		08/31/21 20:34	1
4-Bromofluorobenzene	121		70 - 139		08/31/21 20:34	1
Toluene-d8 (Surr)	110		80 - 120		08/31/21 20:34	1
Dibromofluoromethane (Surr)	116		48 - 150		08/31/21 20:34	1

Lab Sample ID: LCS 460-799122/3

Matrix: Solid

Analysis Batch: 799122

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	19.4		ug/Kg		97	77 - 132
1,1-Dichloroethane	20.0	20.6		ug/Kg		103	76 - 129
1,2-Dichloroethane	20.0	19.5		ug/Kg		98	70 - 132
1,1,1-Trichloroethane	20.0	20.9		ug/Kg		104	78 - 132
2-Butanone (MEK)	100	108		ug/Kg		108	75 - 120
Acetone	100	89.5		ug/Kg		89	63 - 131

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799122/3

Matrix: Solid

Analysis Batch: 799122

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.0	20.7		ug/Kg		104	80 - 123
Carbon tetrachloride	20.0	20.4		ug/Kg		102	72 - 136
Chloroform	20.0	19.4		ug/Kg		97	79 - 126
Chlorobenzene	20.0	21.3		ug/Kg		106	80 - 120
cis-1,2-Dichloroethene	20.0	20.7		ug/Kg		104	80 - 123
Ethylbenzene	20.0	20.7		ug/Kg		103	80 - 120
Methylene Chloride	20.0	21.1		ug/Kg		106	76 - 127
m-Xylene & p-Xylene	20.0	21.0		ug/Kg		105	80 - 120
Methyl tert-butyl ether	20.0	21.9		ug/Kg		109	80 - 125
1,3-Dichlorobenzene	20.0	20.3		ug/Kg		102	80 - 120
1,4-Dichlorobenzene	20.0	20.6		ug/Kg		103	80 - 120
o-Xylene	20.0	21.8		ug/Kg		109	80 - 120
1,2-Dichlorobenzene	20.0	20.7		ug/Kg		104	80 - 120
1,4-Dioxane	400	505		ug/Kg		126	73 - 136
1,2,4-Trimethylbenzene	20.0	18.5		ug/Kg		92	79 - 120
Tetrachloroethene	20.0	20.1		ug/Kg		101	78 - 123
1,3,5-Trimethylbenzene	20.0	18.2		ug/Kg		91	79 - 120
Toluene	20.0	20.2		ug/Kg		101	80 - 120
N-Propylbenzene	20.0	19.3		ug/Kg		96	78 - 120
sec-Butylbenzene	20.0	17.0		ug/Kg		85	78 - 120
trans-1,2-Dichloroethene	20.0	20.3		ug/Kg		101	78 - 128
tert-Butylbenzene	20.0	17.0		ug/Kg		85	76 - 120
Trichloroethene	20.0	20.9		ug/Kg		105	79 - 120
n-Butylbenzene	20.0	16.6		ug/Kg		83	77 - 123
Vinyl chloride	20.0	20.8		ug/Kg		104	56 - 147
Xylenes, Total	40.0	42.7		ug/Kg		107	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 145
4-Bromofluorobenzene	124		70 - 139
Toluene-d8 (Surr)	113		80 - 120
Dibromofluoromethane (Surr)	113		48 - 150

Lab Sample ID: LCSD 460-799122/5

Matrix: Solid

Analysis Batch: 799122

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	20.5		ug/Kg		102	77 - 132	5	30
1,1-Dichloroethane	20.0	21.4		ug/Kg		107	76 - 129	4	30
1,2-Dichloroethane	20.0	20.1		ug/Kg		100	70 - 132	3	30
1,1,1-Trichloroethane	20.0	20.8		ug/Kg		104	78 - 132	0	30
2-Butanone (MEK)	100	107		ug/Kg		107	75 - 120	1	30
Acetone	100	98.8		ug/Kg		99	63 - 131	10	30
Benzene	20.0	21.7		ug/Kg		108	80 - 123	5	30
Carbon tetrachloride	20.0	20.6		ug/Kg		103	72 - 136	1	30
Chloroform	20.0	20.3		ug/Kg		102	79 - 126	5	30
Chlorobenzene	20.0	22.2		ug/Kg		111	80 - 120	4	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-799122/5

Matrix: Solid

Analysis Batch: 799122

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	21.5		ug/Kg		108	80 - 123	4	30
Ethylbenzene	20.0	22.4		ug/Kg		112	80 - 120	8	30
Methylene Chloride	20.0	22.1		ug/Kg		110	76 - 127	4	30
m-Xylene & p-Xylene	20.0	22.8		ug/Kg		114	80 - 120	8	30
Methyl tert-butyl ether	20.0	21.9		ug/Kg		110	80 - 125	0	30
1,3-Dichlorobenzene	20.0	22.7		ug/Kg		114	80 - 120	11	30
1,4-Dichlorobenzene	20.0	22.3		ug/Kg		112	80 - 120	8	30
o-Xylene	20.0	22.7		ug/Kg		114	80 - 120	4	30
1,2-Dichlorobenzene	20.0	23.2		ug/Kg		116	80 - 120	11	30
1,4-Dioxane	400	532		ug/Kg		133	73 - 136	5	30
1,2,4-Trimethylbenzene	20.0	22.1		ug/Kg		110	79 - 120	18	30
Tetrachloroethene	20.0	21.0		ug/Kg		105	78 - 123	5	30
1,3,5-Trimethylbenzene	20.0	21.6		ug/Kg		108	79 - 120	17	30
Toluene	20.0	21.3		ug/Kg		107	80 - 120	5	30
N-Propylbenzene	20.0	23.4		ug/Kg		117	78 - 120	19	30
sec-Butylbenzene	20.0	22.8		ug/Kg		114	78 - 120	29	30
trans-1,2-Dichloroethene	20.0	21.0		ug/Kg		105	78 - 128	4	30
tert-Butylbenzene	20.0	21.9		ug/Kg		109	76 - 120	25	30
Trichloroethene	20.0	20.9		ug/Kg		104	79 - 120	0	30
n-Butylbenzene	20.0	22.1		ug/Kg		111	77 - 123	28	30
Vinyl chloride	20.0	18.2		ug/Kg		91	56 - 147	13	30
Xylenes, Total	40.0	45.5		ug/Kg		114	80 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		77 - 145
4-Bromofluorobenzene	117		70 - 139
Toluene-d8 (Surr)	110		80 - 120
Dibromofluoromethane (Surr)	108		48 - 150

Lab Sample ID: MB 460-799252/7

Matrix: Solid

Analysis Batch: 799252

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			09/01/21 10:21	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			09/01/21 10:21	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			09/01/21 10:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			09/01/21 10:21	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			09/01/21 10:21	1
Acetone	6.0	U	6.0	5.7	ug/Kg			09/01/21 10:21	1
Benzene	1.0	U	1.0	0.26	ug/Kg			09/01/21 10:21	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			09/01/21 10:21	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			09/01/21 10:21	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			09/01/21 10:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			09/01/21 10:21	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			09/01/21 10:21	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			09/01/21 10:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			09/01/21 10:21	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-799252/7

Matrix: Solid

Analysis Batch: 799252

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			09/01/21 10:21	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			09/01/21 10:21	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			09/01/21 10:21	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			09/01/21 10:21	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			09/01/21 10:21	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			09/01/21 10:21	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			09/01/21 10:21	1
Toluene	1.0	U	1.0	0.23	ug/Kg			09/01/21 10:21	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			09/01/21 10:21	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/01/21 10:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			09/01/21 10:21	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			09/01/21 10:21	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			09/01/21 10:21	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/01/21 10:21	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			09/01/21 10:21	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			09/01/21 10:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		77 - 145		09/01/21 10:21	1
4-Bromofluorobenzene	118		70 - 139		09/01/21 10:21	1
Toluene-d8 (Surr)	114		80 - 120		09/01/21 10:21	1
Dibromofluoromethane (Surr)	117		48 - 150		09/01/21 10:21	1

Lab Sample ID: LCS 460-799252/4

Matrix: Solid

Analysis Batch: 799252

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	19.1		ug/Kg		96	77 - 132
1,1-Dichloroethane	20.0	20.0		ug/Kg		100	76 - 129
1,2-Dichloroethane	20.0	19.2		ug/Kg		96	70 - 132
1,1,1-Trichloroethane	20.0	19.3		ug/Kg		96	78 - 132
2-Butanone (MEK)	100	105		ug/Kg		105	75 - 120
Acetone	100	97.7		ug/Kg		98	63 - 131
Benzene	20.0	19.8		ug/Kg		99	80 - 123
Carbon tetrachloride	20.0	18.5		ug/Kg		93	72 - 136
Chloroform	20.0	19.2		ug/Kg		96	79 - 126
Chlorobenzene	20.0	21.1		ug/Kg		106	80 - 120
cis-1,2-Dichloroethene	20.0	20.5		ug/Kg		102	80 - 123
Ethylbenzene	20.0	20.3		ug/Kg		102	80 - 120
Methylene Chloride	20.0	21.5		ug/Kg		107	76 - 127
m-Xylene & p-Xylene	20.0	20.9		ug/Kg		104	80 - 120
Methyl tert-butyl ether	20.0	22.1		ug/Kg		110	80 - 125
1,3-Dichlorobenzene	20.0	22.1		ug/Kg		111	80 - 120
1,4-Dichlorobenzene	20.0	21.7		ug/Kg		108	80 - 120
o-Xylene	20.0	20.5		ug/Kg		102	80 - 120
1,2-Dichlorobenzene	20.0	21.5		ug/Kg		107	80 - 120
1,4-Dioxane	400	487		ug/Kg		122	73 - 136

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799252/4

Matrix: Solid

Analysis Batch: 799252

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trimethylbenzene	20.0	20.0		ug/Kg		100	79 - 120
Tetrachloroethene	20.0	19.0		ug/Kg		95	78 - 123
1,3,5-Trimethylbenzene	20.0	19.8		ug/Kg		99	79 - 120
Toluene	20.0	19.7		ug/Kg		99	80 - 120
N-Propylbenzene	20.0	20.6		ug/Kg		103	78 - 120
sec-Butylbenzene	20.0	20.2		ug/Kg		101	78 - 120
trans-1,2-Dichloroethene	20.0	19.3		ug/Kg		97	78 - 128
tert-Butylbenzene	20.0	19.8		ug/Kg		99	76 - 120
Trichloroethene	20.0	19.6		ug/Kg		98	79 - 120
n-Butylbenzene	20.0	19.5		ug/Kg		98	77 - 123
Vinyl chloride	20.0	18.7		ug/Kg		93	56 - 147
Xylenes, Total	40.0	41.3		ug/Kg		103	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		77 - 145
4-Bromofluorobenzene	118		70 - 139
Toluene-d8 (Surr)	109		80 - 120
Dibromofluoromethane (Surr)	109		48 - 150

Lab Sample ID: LCSD 460-799252/11

Matrix: Solid

Analysis Batch: 799252

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	23.3		ug/Kg		116	77 - 132	20	30
1,1-Dichloroethane	20.0	23.5		ug/Kg		118	76 - 129	16	30
1,2-Dichloroethane	20.0	21.7		ug/Kg		108	70 - 132	12	30
1,1,1-Trichloroethane	20.0	22.1		ug/Kg		110	78 - 132	14	30
2-Butanone (MEK)	100	110		ug/Kg		110	75 - 120	5	30
Acetone	100	105		ug/Kg		105	63 - 131	7	30
Benzene	20.0	23.9		ug/Kg		119	80 - 123	18	30
Carbon tetrachloride	20.0	21.4		ug/Kg		107	72 - 136	14	30
Chloroform	20.0	21.8		ug/Kg		109	79 - 126	13	30
Chlorobenzene	20.0	23.5		ug/Kg		118	80 - 120	11	30
cis-1,2-Dichloroethene	20.0	23.2		ug/Kg		116	80 - 123	13	30
Ethylbenzene	20.0	23.1		ug/Kg		115	80 - 120	13	30
Methylene Chloride	20.0	24.9		ug/Kg		124	76 - 127	15	30
m-Xylene & p-Xylene	20.0	23.8		ug/Kg		119	80 - 120	13	30
Methyl tert-butyl ether	20.0	24.8		ug/Kg		124	80 - 125	12	30
1,3-Dichlorobenzene	20.0	24.6	*	ug/Kg		123	80 - 120	11	30
1,4-Dichlorobenzene	20.0	24.1		ug/Kg		120	80 - 120	10	30
o-Xylene	20.0	23.5		ug/Kg		117	80 - 120	14	30
1,2-Dichlorobenzene	20.0	23.7		ug/Kg		118	80 - 120	10	30
1,4-Dioxane	400	498		ug/Kg		124	73 - 136	2	30
1,2,4-Trimethylbenzene	20.0	23.4		ug/Kg		117	79 - 120	16	30
Tetrachloroethene	20.0	22.8		ug/Kg		114	78 - 123	18	30
1,3,5-Trimethylbenzene	20.0	23.3		ug/Kg		116	79 - 120	16	30
Toluene	20.0	23.1		ug/Kg		116	80 - 120	16	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-799252/11

Matrix: Solid

Analysis Batch: 799252

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-Propylbenzene	20.0	24.5	*	ug/Kg		123	78 - 120	17	30
sec-Butylbenzene	20.0	24.4	*	ug/Kg		122	78 - 120	19	30
trans-1,2-Dichloroethene	20.0	22.6		ug/Kg		113	78 - 128	16	30
tert-Butylbenzene	20.0	24.2	*	ug/Kg		121	76 - 120	20	30
Trichloroethene	20.0	21.8		ug/Kg		109	79 - 120	10	30
n-Butylbenzene	20.0	23.3		ug/Kg		116	77 - 123	18	30
Vinyl chloride	20.0	21.0		ug/Kg		105	56 - 147	12	30
Xylenes, Total	40.0	47.3		ug/Kg		118	80 - 120	14	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		77 - 145
4-Bromofluorobenzene	120		70 - 139
Toluene-d8 (Surr)	121	*	80 - 120
Dibromofluoromethane (Surr)	117		48 - 150

Lab Sample ID: MB 460-799422/8

Matrix: Water

Analysis Batch: 799422

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/02/21 10:39	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/02/21 10:39	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/02/21 10:39	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/02/21 10:39	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/02/21 10:39	1
Acetone	5.0	U	5.0	4.4	ug/L			09/02/21 10:39	1
Benzene	1.0	U	1.0	0.20	ug/L			09/02/21 10:39	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/02/21 10:39	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/02/21 10:39	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/02/21 10:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/02/21 10:39	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/02/21 10:39	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/02/21 10:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/02/21 10:39	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/02/21 10:39	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/02/21 10:39	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/02/21 10:39	1
1,4-Dioxane	50	U	50	28	ug/L			09/02/21 10:39	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/02/21 10:39	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/02/21 10:39	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/02/21 10:39	1
Toluene	1.0	U	1.0	0.38	ug/L			09/02/21 10:39	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/02/21 10:39	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/02/21 10:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/02/21 10:39	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/02/21 10:39	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/02/21 10:39	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/02/21 10:39	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-799422/8

Matrix: Water

Analysis Batch: 799422

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/02/21 10:39	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/02/21 10:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 123		09/02/21 10:39	1
4-Bromofluorobenzene	106		76 - 120		09/02/21 10:39	1
Toluene-d8 (Surr)	92		80 - 120		09/02/21 10:39	1
Dibromofluoromethane (Surr)	103		77 - 124		09/02/21 10:39	1

Lab Sample ID: LCS 460-799422/4

Matrix: Water

Analysis Batch: 799422

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	23.1		ug/L		115	68 - 133
1,1-Dichloroethane	20.0	23.0		ug/L		115	73 - 130
1,2-Dichloroethane	20.0	22.2		ug/L		111	75 - 121
1,1,1-Trichloroethane	20.0	24.4		ug/L		122	68 - 128
2-Butanone (MEK)	100	87.4		ug/L		87	69 - 128
Acetone	100	101		ug/L		101	61 - 134
Benzene	20.0	20.5		ug/L		102	78 - 126
Carbon tetrachloride	20.0	24.2		ug/L		121	56 - 131
Chloroform	20.0	22.2		ug/L		111	78 - 125
Chlorobenzene	20.0	20.7		ug/L		104	80 - 119
cis-1,2-Dichloroethene	20.0	23.4		ug/L		117	78 - 121
Ethylbenzene	20.0	20.9		ug/L		104	78 - 120
Methylene Chloride	20.0	21.9		ug/L		109	74 - 127
m-Xylene & p-Xylene	20.0	20.8		ug/L		104	78 - 123
Methyl tert-butyl ether	20.0	22.9		ug/L		115	65 - 131
1,3-Dichlorobenzene	20.0	20.1		ug/L		100	80 - 121
1,4-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 118
o-Xylene	20.0	20.5		ug/L		103	78 - 122
1,2-Dichlorobenzene	20.0	20.4		ug/L		102	79 - 122
1,4-Dioxane	400	364		ug/L		91	70 - 142
1,2,4-Trimethylbenzene	20.0	19.1		ug/L		96	75 - 125
Tetrachloroethene	20.0	23.0		ug/L		115	70 - 127
1,3,5-Trimethylbenzene	20.0	19.2		ug/L		96	75 - 125
Toluene	20.0	19.8		ug/L		99	78 - 119
N-Propylbenzene	20.0	20.5		ug/L		103	74 - 129
sec-Butylbenzene	20.0	20.5		ug/L		102	73 - 129
trans-1,2-Dichloroethene	20.0	23.3		ug/L		116	74 - 126
tert-Butylbenzene	20.0	18.9		ug/L		95	72 - 124
Trichloroethene	20.0	22.8		ug/L		114	71 - 121
n-Butylbenzene	20.0	20.6		ug/L		103	69 - 135
Vinyl chloride	20.0	24.7		ug/L		124	61 - 144
Xylenes, Total	40.0	41.3		ug/L		103	78 - 122

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799422/4

Matrix: Water

Analysis Batch: 799422

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		75 - 123
4-Bromofluorobenzene	113		76 - 120
Toluene-d8 (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	112		77 - 124

Lab Sample ID: 460-241844-C-1 MS

Matrix: Water

Analysis Batch: 799422

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	1.0	U	20.0	20.7		ug/L		103	68 - 133
1,1-Dichloroethane	1.0	U	20.0	20.6		ug/L		103	73 - 130
1,2-Dichloroethane	1.0	U	20.0	19.8		ug/L		99	75 - 121
1,1,1-Trichloroethane	1.0	U	20.0	21.8		ug/L		109	68 - 128
2-Butanone (MEK)	7.2		100	89.4		ug/L		82	69 - 128
Acetone	5.0	U	100	93.8		ug/L		94	61 - 134
Benzene	0.43	J	20.0	19.6		ug/L		96	78 - 126
Carbon tetrachloride	1.0	U	20.0	22.2		ug/L		111	56 - 131
Chloroform	1.0	U	20.0	20.4		ug/L		102	78 - 125
Chlorobenzene	1.0	U	20.0	19.1		ug/L		96	80 - 119
cis-1,2-Dichloroethene	1.0	U	20.0	21.2		ug/L		106	78 - 121
Ethylbenzene	1.0	U	20.0	18.9		ug/L		95	78 - 120
Methylene Chloride	1.0	U	20.0	19.2		ug/L		96	74 - 127
m-Xylene & p-Xylene	1.0	U	20.0	19.5		ug/L		98	78 - 123
Methyl tert-butyl ether	20		20.0	40.3		ug/L		103	65 - 131
1,3-Dichlorobenzene	1.0	U	20.0	19.4		ug/L		97	80 - 121
1,4-Dichlorobenzene	1.0	U	20.0	18.9		ug/L		95	80 - 118
o-Xylene	1.0	U	20.0	19.2		ug/L		96	78 - 122
1,2-Dichlorobenzene	1.0	U	20.0	19.2		ug/L		96	79 - 122
1,4-Dioxane	50	U	400	363		ug/L		91	70 - 142
1,2,4-Trimethylbenzene	1.0	U	20.0	18.7		ug/L		94	75 - 125
Tetrachloroethene	0.39	J	20.0	22.8		ug/L		112	70 - 127
1,3,5-Trimethylbenzene	1.0	U	20.0	18.7		ug/L		94	75 - 125
Toluene	1.0	U	20.0	18.7		ug/L		93	78 - 119
N-Propylbenzene	1.0	U	20.0	19.7		ug/L		98	74 - 129
sec-Butylbenzene	1.0	U	20.0	19.8		ug/L		99	73 - 129
trans-1,2-Dichloroethene	1.0	U	20.0	20.4		ug/L		102	74 - 126
tert-Butylbenzene	1.0	U	20.0	18.5		ug/L		92	72 - 124
Trichloroethene	1.0	U	20.0	20.5		ug/L		103	71 - 121
n-Butylbenzene	1.0	U	20.0	19.1		ug/L		96	69 - 135
Vinyl chloride	1.0	U	20.0	23.4		ug/L		117	61 - 144
Xylenes, Total	2.0	U	40.0	38.7		ug/L		97	78 - 122

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		75 - 123
4-Bromofluorobenzene	113		76 - 120
Toluene-d8 (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	107		77 - 124

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: 460-241844-C-1 MSD

Matrix: Water

Analysis Batch: 799422

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	1.0	U	20.0	23.9		ug/L		120	68 - 133	15	30
1,1-Dichloroethane	1.0	U	20.0	24.6		ug/L		123	73 - 130	17	30
1,2-Dichloroethane	1.0	U	20.0	22.7		ug/L		114	75 - 121	14	30
1,1,1-Trichloroethane	1.0	U	20.0	25.3		ug/L		127	68 - 128	15	30
2-Butanone (MEK)	7.2		100	104		ug/L		97	69 - 128	15	30
Acetone	5.0	U	100	103		ug/L		103	61 - 134	9	30
Benzene	0.43	J	20.0	22.7		ug/L		111	78 - 126	15	30
Carbon tetrachloride	1.0	U	20.0	25.0		ug/L		125	56 - 131	12	30
Chloroform	1.0	U	20.0	23.3		ug/L		116	78 - 125	13	30
Chlorobenzene	1.0	U	20.0	22.3		ug/L		112	80 - 119	15	30
cis-1,2-Dichloroethene	1.0	U	20.0	24.1		ug/L		121	78 - 121	13	30
Ethylbenzene	1.0	U	20.0	22.4		ug/L		112	78 - 120	17	30
Methylene Chloride	1.0	U	20.0	22.5		ug/L		112	74 - 127	16	30
m-Xylene & p-Xylene	1.0	U	20.0	22.3		ug/L		112	78 - 123	13	30
Methyl tert-butyl ether	20		20.0	43.9		ug/L		121	65 - 131	8	30
1,3-Dichlorobenzene	1.0	U	20.0	21.2		ug/L		106	80 - 121	9	30
1,4-Dichlorobenzene	1.0	U	20.0	21.3		ug/L		106	80 - 118	12	30
o-Xylene	1.0	U	20.0	22.5		ug/L		113	78 - 122	16	30
1,2-Dichlorobenzene	1.0	U	20.0	21.3		ug/L		106	79 - 122	10	30
1,4-Dioxane	50	U	400	408		ug/L		102	70 - 142	12	30
1,2,4-Trimethylbenzene	1.0	U	20.0	20.9		ug/L		104	75 - 125	11	30
Tetrachloroethene	0.39	J	20.0	25.5		ug/L		126	70 - 127	11	30
1,3,5-Trimethylbenzene	1.0	U	20.0	20.4		ug/L		102	75 - 125	9	30
Toluene	1.0	U	20.0	21.7		ug/L		108	78 - 119	15	30
N-Propylbenzene	1.0	U	20.0	21.7		ug/L		109	74 - 129	10	30
sec-Butylbenzene	1.0	U	20.0	22.0		ug/L		110	73 - 129	11	30
trans-1,2-Dichloroethene	1.0	U	20.0	24.0		ug/L		120	74 - 126	16	30
tert-Butylbenzene	1.0	U	20.0	20.4		ug/L		102	72 - 124	10	30
Trichloroethene	1.0	U	20.0	23.2		ug/L		116	71 - 121	12	30
n-Butylbenzene	1.0	U	20.0	21.2		ug/L		106	69 - 135	10	30
Vinyl chloride	1.0	U	20.0	25.3		ug/L		126	61 - 144	8	30
Xylenes, Total	2.0	U	40.0	44.8		ug/L		112	78 - 122	15	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		75 - 123
4-Bromofluorobenzene	112		76 - 120
Toluene-d8 (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	107		77 - 124

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-799162/1-A

Matrix: Solid

Analysis Batch: 799208

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799162

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	33	U	33	29	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
2-Methylphenol	330	U	330	12	ug/Kg		08/31/21 20:22	09/01/21 06:23	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-799162/1-A

Matrix: Solid

Analysis Batch: 799208

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799162

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	330	U	330	21	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Acenaphthene	330	U	330	9.4	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Acenaphthylene	330	U	330	3.3	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Anthracene	330	U	330	10	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Chrysene	330	U	330	5.6	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Dibenzofuran	330	U	330	4.6	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Fluoranthene	330	U	330	12	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Fluorene	330	U	330	4.5	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Hexachlorobenzene	33	U	33	16	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Naphthalene	330	U	330	5.7	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Pentachlorophenol	270	U	270	68	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Phenanthrene	330	U	330	5.8	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Phenol	330	U	330	12	ug/Kg		08/31/21 20:22	09/01/21 06:23	1
Pyrene	330	U	330	8.2	ug/Kg		08/31/21 20:22	09/01/21 06:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	96		11 - 104	08/31/21 20:22	09/01/21 06:23	1
Phenol-d5 (Surr)	83		15 - 100	08/31/21 20:22	09/01/21 06:23	1
Terphenyl-d14 (Surr)	96		12 - 126	08/31/21 20:22	09/01/21 06:23	1
2,4,6-Tribromophenol (Surr)	95		10 - 123	08/31/21 20:22	09/01/21 06:23	1
2-Fluorophenol (Surr)	84		10 - 105	08/31/21 20:22	09/01/21 06:23	1
2-Fluorobiphenyl	83		14 - 103	08/31/21 20:22	09/01/21 06:23	1

Lab Sample ID: LCS 460-799162/2-A

Matrix: Solid

Analysis Batch: 799208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799162

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	3330	2350		ug/Kg		70	31 - 81
2-Methylphenol	3330	2840		ug/Kg		85	63 - 108
3 & 4 Methylphenol	3330	2810		ug/Kg		84	61 - 108
Acenaphthene	3330	2720		ug/Kg		82	53 - 110
Acenaphthylene	3330	2940		ug/Kg		88	64 - 108
Anthracene	3330	2960		ug/Kg		89	67 - 114
Benzo[a]anthracene	3330	2970		ug/Kg		89	67 - 115
Benzo[a]pyrene	3330	3730		ug/Kg		112	73 - 123
Benzo[b]fluoranthene	3330	3400		ug/Kg		102	70 - 125
Benzo[g,h,i]perylene	3330	3270		ug/Kg		98	61 - 113
Benzo[k]fluoranthene	3330	3400		ug/Kg		102	67 - 115
Chrysene	3330	3010		ug/Kg		90	71 - 122
Dibenz(a,h)anthracene	3330	3600		ug/Kg		108	66 - 119

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-799162/2-A

Matrix: Solid

Analysis Batch: 799208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799162

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenzofuran	3330	2850		ug/Kg		86	65 - 108
Fluoranthene	3330	3160		ug/Kg		95	61 - 106
Fluorene	3330	2850		ug/Kg		86	65 - 109
Hexachlorobenzene	3330	3370		ug/Kg		101	61 - 113
Indeno[1,2,3-cd]pyrene	3330	3460		ug/Kg		104	62 - 121
Naphthalene	3330	2990		ug/Kg		90	63 - 106
Pentachlorophenol	6670	6830		ug/Kg		102	44 - 126
Phenanthrene	3330	3010		ug/Kg		90	66 - 112
Phenol	3330	2720		ug/Kg		82	63 - 110
Pyrene	3330	2890		ug/Kg		87	61 - 111

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	91		11 - 104
Phenol-d5 (Surr)	80		15 - 100
Terphenyl-d14 (Surr)	92		12 - 126
2,4,6-Tribromophenol (Surr)	100		10 - 123
2-Fluorophenol (Surr)	78		10 - 105
2-Fluorobiphenyl	80		14 - 103

Lab Sample ID: LCSD 460-799162/3-A

Matrix: Solid

Analysis Batch: 799208

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799162

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	3330	2360		ug/Kg		71	31 - 81	0	30
2-Methylphenol	3330	2880		ug/Kg		86	63 - 108	2	30
3 & 4 Methylphenol	3330	2830		ug/Kg		85	61 - 108	1	30
Acenaphthene	3330	2760		ug/Kg		83	53 - 110	1	30
Acenaphthylene	3330	2960		ug/Kg		89	64 - 108	1	30
Anthracene	3330	2910		ug/Kg		87	67 - 114	2	30
Benzo[a]anthracene	3330	2950		ug/Kg		88	67 - 115	1	30
Benzo[a]pyrene	3330	3600		ug/Kg		108	73 - 123	3	30
Benzo[b]fluoranthene	3330	3330		ug/Kg		100	70 - 125	2	30
Benzo[g,h,i]perylene	3330	3190		ug/Kg		96	61 - 113	3	30
Benzo[k]fluoranthene	3330	3210		ug/Kg		96	67 - 115	6	30
Chrysene	3330	2880		ug/Kg		86	71 - 122	5	30
Dibenz(a,h)anthracene	3330	3480		ug/Kg		104	66 - 119	3	30
Dibenzofuran	3330	2880		ug/Kg		86	65 - 108	1	30
Fluoranthene	3330	3050		ug/Kg		92	61 - 106	3	30
Fluorene	3330	2840		ug/Kg		85	65 - 109	0	30
Hexachlorobenzene	3330	3390		ug/Kg		102	61 - 113	1	30
Indeno[1,2,3-cd]pyrene	3330	3320		ug/Kg		100	62 - 121	4	30
Naphthalene	3330	2980		ug/Kg		89	63 - 106	0	30
Pentachlorophenol	6670	6690		ug/Kg		100	44 - 126	2	30
Phenanthrene	3330	2920		ug/Kg		88	66 - 112	3	30
Phenol	3330	2780		ug/Kg		83	63 - 110	2	30
Pyrene	3330	2820		ug/Kg		85	61 - 111	2	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-799162/3-A

Matrix: Solid

Analysis Batch: 799208

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799162

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5 (Surr)	92		11 - 104
Phenol-d5 (Surr)	83		15 - 100
Terphenyl-d14 (Surr)	91		12 - 126
2,4,6-Tribromophenol (Surr)	98		10 - 123
2-Fluorophenol (Surr)	83		10 - 105
2-Fluorobiphenyl	82		14 - 103

Lab Sample ID: 460-241746-E-1-B MS

Matrix: Solid

Analysis Batch: 799208

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799162

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	42	U	4260	2930		ug/Kg	✱	69	31 - 81
2-Methylphenol	420	U	4260	3950		ug/Kg	✱	93	63 - 108
3 & 4 Methylphenol	420	U	4260	3870		ug/Kg	✱	91	61 - 108
Acenaphthene	420	U	4260	3620		ug/Kg	✱	85	53 - 110
Acenaphthylene	420	U	4260	3870		ug/Kg	✱	91	64 - 108
Anthracene	420	U	4260	3740		ug/Kg	✱	88	67 - 114
Benzo[a]anthracene	42	U	4260	3700		ug/Kg	✱	87	67 - 115
Benzo[a]pyrene	42	U	4260	4730		ug/Kg	✱	111	73 - 123
Benzo[b]fluoranthene	42	U	4260	4400		ug/Kg	✱	103	70 - 125
Benzo[g,h,i]perylene	420	U	4260	2870		ug/Kg	✱	67	61 - 113
Benzo[k]fluoranthene	42	U	4260	4210		ug/Kg	✱	99	67 - 115
Chrysene	420	U	4260	3690		ug/Kg	✱	87	71 - 122
Dibenz(a,h)anthracene	42	U	4260	3630		ug/Kg	✱	85	66 - 119
Dibenzofuran	420	U	4260	3720		ug/Kg	✱	87	65 - 108
Fluoranthene	420	U	4260	3950		ug/Kg	✱	93	61 - 106
Fluorene	420	U	4260	3710		ug/Kg	✱	87	65 - 109
Hexachlorobenzene	42	U	4260	4350		ug/Kg	✱	102	61 - 113
Indeno[1,2,3-cd]pyrene	42	U	4260	3190		ug/Kg	✱	75	62 - 121
Naphthalene	420	U	4260	4070		ug/Kg	✱	96	63 - 106
Pentachlorophenol	340	U	8520	8740		ug/Kg	✱	103	44 - 126
Phenanthrene	420	U	4260	3740		ug/Kg	✱	88	66 - 112
Phenol	420	U	4260	3960		ug/Kg	✱	93	63 - 110
Pyrene	420	U	4260	3530		ug/Kg	✱	83	61 - 111

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5 (Surr)	96		11 - 104
Phenol-d5 (Surr)	88		15 - 100
Terphenyl-d14 (Surr)	91		12 - 126
2,4,6-Tribromophenol (Surr)	100		10 - 123
2-Fluorophenol (Surr)	87		10 - 105
2-Fluorobiphenyl	85		14 - 103

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-241746-E-1-C MSD

Matrix: Solid

Analysis Batch: 799208

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799162

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	42	U	4260	2750		ug/Kg	✱	65	31 - 81	6	30
2-Methylphenol	420	U	4260	3900		ug/Kg	✱	92	63 - 108	1	30
3 & 4 Methylphenol	420	U	4260	3830		ug/Kg	✱	90	61 - 108	1	30
Acenaphthene	420	U	4260	3640		ug/Kg	✱	86	53 - 110	1	30
Acenaphthylene	420	U	4260	3880		ug/Kg	✱	91	64 - 108	0	30
Anthracene	420	U	4260	3720		ug/Kg	✱	87	67 - 114	1	30
Benzo[a]anthracene	42	U	4260	3700		ug/Kg	✱	87	67 - 115	0	30
Benzo[a]pyrene	42	U	4260	4670		ug/Kg	✱	110	73 - 123	1	30
Benzo[b]fluoranthene	42	U	4260	4330		ug/Kg	✱	102	70 - 125	2	30
Benzo[g,h,i]perylene	420	U	4260	3330		ug/Kg	✱	78	61 - 113	15	30
Benzo[k]fluoranthene	42	U	4260	4240		ug/Kg	✱	100	67 - 115	1	30
Chrysene	420	U	4260	3650		ug/Kg	✱	86	71 - 122	1	30
Dibenz(a,h)anthracene	42	U	4260	3900		ug/Kg	✱	92	66 - 119	7	30
Dibenzofuran	420	U	4260	3740		ug/Kg	✱	88	65 - 108	1	30
Fluoranthene	420	U	4260	3870		ug/Kg	✱	91	61 - 106	2	30
Fluorene	420	U	4260	3650		ug/Kg	✱	86	65 - 109	2	30
Hexachlorobenzene	42	U	4260	4230		ug/Kg	✱	99	61 - 113	3	30
Indeno[1,2,3-cd]pyrene	42	U	4260	3420		ug/Kg	✱	80	62 - 121	7	30
Naphthalene	420	U	4260	3880		ug/Kg	✱	91	63 - 106	5	30
Pentachlorophenol	340	U	8520	8740		ug/Kg	✱	103	44 - 126	0	30
Phenanthrene	420	U	4260	3700		ug/Kg	✱	87	66 - 112	1	30
Phenol	420	U	4260	3850		ug/Kg	✱	90	63 - 110	3	30
Pyrene	420	U	4260	3530		ug/Kg	✱	83	61 - 111	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	94		11 - 104
Phenol-d5 (Surr)	87		15 - 100
Terphenyl-d14 (Surr)	90		12 - 126
2,4,6-Tribromophenol (Surr)	100		10 - 123
2-Fluorophenol (Surr)	86		10 - 105
2-Fluorobiphenyl	84		14 - 103

Lab Sample ID: MB 460-799163/1-A

Matrix: Solid

Analysis Batch: 799215

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	33	U	33	29	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
2-Methylphenol	330	U	330	12	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Acenaphthene	330	U	330	9.4	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Acenaphthylene	330	U	330	3.3	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Anthracene	330	U	330	10	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		08/31/21 20:30	09/01/21 07:03	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-799163/1-A

Matrix: Solid

Analysis Batch: 799215

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	330	U	330	5.6	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Dibenzofuran	330	U	330	4.6	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Fluoranthene	330	U	330	12	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Fluorene	330	U	330	4.5	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Hexachlorobenzene	33	U	33	16	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Naphthalene	330	U	330	5.7	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Pentachlorophenol	270	U	270	68	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Phenanthrene	330	U	330	5.8	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Phenol	330	U	330	12	ug/Kg		08/31/21 20:30	09/01/21 07:03	1
Pyrene	330	U	330	8.2	ug/Kg		08/31/21 20:30	09/01/21 07:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		11 - 104	08/31/21 20:30	09/01/21 07:03	1
Phenol-d5 (Surr)	78		15 - 100	08/31/21 20:30	09/01/21 07:03	1
Terphenyl-d14 (Surr)	95		12 - 126	08/31/21 20:30	09/01/21 07:03	1
2,4,6-Tribromophenol (Surr)	83		10 - 123	08/31/21 20:30	09/01/21 07:03	1
2-Fluorophenol (Surr)	81		10 - 105	08/31/21 20:30	09/01/21 07:03	1
2-Fluorobiphenyl	81		14 - 103	08/31/21 20:30	09/01/21 07:03	1

Lab Sample ID: LCS 460-799163/2-A

Matrix: Solid

Analysis Batch: 799215

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	3330	2230		ug/Kg		67	31 - 81
2-Methylphenol	3330	2890		ug/Kg		87	63 - 108
3 & 4 Methylphenol	3330	2810		ug/Kg		84	61 - 108
Acenaphthene	3330	2310		ug/Kg		69	53 - 110
Acenaphthylene	3330	2830		ug/Kg		85	64 - 108
Anthracene	3330	2850		ug/Kg		85	67 - 114
Benzo[a]anthracene	3330	2930		ug/Kg		88	67 - 115
Benzo[a]pyrene	3330	3540		ug/Kg		106	73 - 123
Benzo[b]fluoranthene	3330	3190		ug/Kg		96	70 - 125
Benzo[g,h,i]perylene	3330	2980		ug/Kg		89	61 - 113
Benzo[k]fluoranthene	3330	3300		ug/Kg		99	67 - 115
Chrysene	3330	2820		ug/Kg		85	71 - 122
Dibenz(a,h)anthracene	3330	3240		ug/Kg		97	66 - 119
Dibenzofuran	3330	2730		ug/Kg		82	65 - 108
Fluoranthene	3330	2770		ug/Kg		83	61 - 106
Fluorene	3330	2770		ug/Kg		83	65 - 109
Hexachlorobenzene	3330	2810		ug/Kg		84	61 - 113
Indeno[1,2,3-cd]pyrene	3330	3260		ug/Kg		98	62 - 121
Naphthalene	3330	2720		ug/Kg		82	63 - 106
Pentachlorophenol	6670	4520		ug/Kg		68	44 - 126
Phenanthrene	3330	2820		ug/Kg		85	66 - 112
Phenol	3330	2840		ug/Kg		85	63 - 110

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-799163/2-A

Matrix: Solid

Analysis Batch: 799215

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Pyrene	3330	2910		ug/Kg		87	61 - 111

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	81		11 - 104
Phenol-d5 (Surr)	80		15 - 100
Terphenyl-d14 (Surr)	89		12 - 126
2,4,6-Tribromophenol (Surr)	83		10 - 123
2-Fluorophenol (Surr)	76		10 - 105
2-Fluorobiphenyl	77		14 - 103

Lab Sample ID: LCSD 460-799163/3-A

Matrix: Solid

Analysis Batch: 799215

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799163

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1,4-Dioxane	3330	2250		ug/Kg		67	31 - 81	1	30
2-Methylphenol	3330	2860		ug/Kg		86	63 - 108	1	30
3 & 4 Methylphenol	3330	2840		ug/Kg		85	61 - 108	1	30
Acenaphthene	3330	2250		ug/Kg		68	53 - 110	2	30
Acenaphthylene	3330	2800		ug/Kg		84	64 - 108	1	30
Anthracene	3330	2740		ug/Kg		82	67 - 114	4	30
Benzo[a]anthracene	3330	2840		ug/Kg		85	67 - 115	3	30
Benzo[a]pyrene	3330	3390		ug/Kg		102	73 - 123	4	30
Benzo[b]fluoranthene	3330	3030		ug/Kg		91	70 - 125	5	30
Benzo[g,h,i]perylene	3330	2850		ug/Kg		86	61 - 113	4	30
Benzo[k]fluoranthene	3330	3090		ug/Kg		93	67 - 115	7	30
Chrysene	3330	2690		ug/Kg		81	71 - 122	5	30
Dibenz(a,h)anthracene	3330	3090		ug/Kg		93	66 - 119	5	30
Dibenzofuran	3330	2680		ug/Kg		80	65 - 108	2	30
Fluoranthene	3330	2680		ug/Kg		80	61 - 106	3	30
Fluorene	3330	2720		ug/Kg		82	65 - 109	2	30
Hexachlorobenzene	3330	2750		ug/Kg		82	61 - 113	2	30
Indeno[1,2,3-cd]pyrene	3330	2990		ug/Kg		90	62 - 121	9	30
Naphthalene	3330	2700		ug/Kg		81	63 - 106	1	30
Pentachlorophenol	6670	4360		ug/Kg		65	44 - 126	4	30
Phenanthrene	3330	2690		ug/Kg		81	66 - 112	5	30
Phenol	3330	2800		ug/Kg		84	63 - 110	1	30
Pyrene	3330	2760		ug/Kg		83	61 - 111	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	80		11 - 104
Phenol-d5 (Surr)	81		15 - 100
Terphenyl-d14 (Surr)	87		12 - 126
2,4,6-Tribromophenol (Surr)	84		10 - 123
2-Fluorophenol (Surr)	77		10 - 105
2-Fluorobiphenyl	77		14 - 103

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-241854-E-1-A MS

Matrix: Solid

Analysis Batch: 799215

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799163

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	36	U	3680	1830		ug/Kg	✱	50	31 - 81
2-Methylphenol	360	U	3680	3020		ug/Kg	✱	82	63 - 108
3 & 4 Methylphenol	360	U	3680	3020		ug/Kg	✱	82	61 - 108
Acenaphthene	360	U	3680	2440		ug/Kg	✱	66	53 - 110
Acenaphthylene	26	J	3680	2990		ug/Kg	✱	81	64 - 108
Anthracene	40	J	3680	2850		ug/Kg	✱	77	67 - 114
Benzo[a]anthracene	210		3680	3140		ug/Kg	✱	80	67 - 115
Benzo[a]pyrene	240		3680	3760		ug/Kg	✱	96	73 - 123
Benzo[b]fluoranthene	290		3680	3690		ug/Kg	✱	93	70 - 125
Benzo[g,h,i]perylene	150	J	3680	2170	*	ug/Kg	✱	55	61 - 113
Benzo[k]fluoranthene	100		3680	3820		ug/Kg	✱	101	67 - 115
Chrysene	210	J	3680	2970		ug/Kg	✱	75	71 - 122
Dibenz(a,h)anthracene	39		3680	2480		ug/Kg	✱	66	66 - 119
Dibenzofuran	360	U	3680	2850		ug/Kg	✱	78	65 - 108
Fluoranthene	320	J	3680	3170		ug/Kg	✱	78	61 - 106
Fluorene	360	U	3680	2870		ug/Kg	✱	78	65 - 109
Hexachlorobenzene	36	U	3680	2870		ug/Kg	✱	78	61 - 113
Indeno[1,2,3-cd]pyrene	150		3680	2480		ug/Kg	✱	63	62 - 121
Naphthalene	12	J	3680	2810		ug/Kg	✱	76	63 - 106
Pentachlorophenol	290	U	7350	4640		ug/Kg	✱	63	44 - 126
Phenanthrene	93	J	3680	2950		ug/Kg	✱	78	66 - 112
Phenol	360	U	3680	2890		ug/Kg	✱	79	63 - 110
Pyrene	380		3680	3280		ug/Kg	✱	79	61 - 111

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	73		11 - 104
Phenol-d5 (Surr)	75		15 - 100
Terphenyl-d14 (Surr)	82		12 - 126
2,4,6-Tribromophenol (Surr)	79		10 - 123
2-Fluorophenol (Surr)	74		10 - 105
2-Fluorobiphenyl	73		14 - 103

Lab Sample ID: 460-241854-E-1-B MSD

Matrix: Solid

Analysis Batch: 799215

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	36	U	3680	2040		ug/Kg	✱	55	31 - 81	11	30
2-Methylphenol	360	U	3680	3160		ug/Kg	✱	86	63 - 108	5	30
3 & 4 Methylphenol	360	U	3680	3130		ug/Kg	✱	85	61 - 108	3	30
Acenaphthene	360	U	3680	2480		ug/Kg	✱	68	53 - 110	2	30
Acenaphthylene	26	J	3680	3090		ug/Kg	✱	83	64 - 108	3	30
Anthracene	40	J	3680	2890		ug/Kg	✱	78	67 - 114	1	30
Benzo[a]anthracene	210		3680	3180		ug/Kg	✱	81	67 - 115	1	30
Benzo[a]pyrene	240		3680	3780		ug/Kg	✱	96	73 - 123	1	30
Benzo[b]fluoranthene	290		3680	4080		ug/Kg	✱	103	70 - 125	10	30
Benzo[g,h,i]perylene	150	J	3680	2230	*	ug/Kg	✱	57	61 - 113	3	30
Benzo[k]fluoranthene	100		3680	3430		ug/Kg	✱	90	67 - 115	11	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-241854-E-1-B MSD

Matrix: Solid

Analysis Batch: 799215

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chrysene	210	J	3680	3000		ug/Kg	✱	76	71 - 122	1	30
Dibenz(a,h)anthracene	39		3680	2550		ug/Kg	✱	68	66 - 119	3	30
Dibenzofuran	360	U	3680	2900		ug/Kg	✱	79	65 - 108	2	30
Fluoranthene	320	J	3680	3120		ug/Kg	✱	76	61 - 106	1	30
Fluorene	360	U	3680	2900		ug/Kg	✱	79	65 - 109	1	30
Hexachlorobenzene	36	U	3680	2910		ug/Kg	✱	79	61 - 113	1	30
Indeno[1,2,3-cd]pyrene	150		3680	2670		ug/Kg	✱	68	62 - 121	7	30
Naphthalene	12	J	3680	2940		ug/Kg	✱	80	63 - 106	4	30
Pentachlorophenol	290	U	7350	4420		ug/Kg	✱	60	44 - 126	5	30
Phenanthrene	93	J	3680	2970		ug/Kg	✱	78	66 - 112	1	30
Phenol	360	U	3680	3080		ug/Kg	✱	84	63 - 110	6	30
Pyrene	380		3680	3330		ug/Kg	✱	80	61 - 111	2	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
Nitrobenzene-d5 (Surr)	79		11 - 104
Phenol-d5 (Surr)	80		15 - 100
Terphenyl-d14 (Surr)	83		12 - 126
2,4,6-Tribromophenol (Surr)	78		10 - 123
2-Fluorophenol (Surr)	80		10 - 105
2-Fluorobiphenyl	76		14 - 103

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-799143/1-A

Matrix: Solid

Analysis Batch: 799186

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Chlordane (technical)	67	U	67	16	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Chlordane (technical)	67	U	67	16	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		08/31/21 17:18	09/01/21 04:49	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-799143/1-A

Matrix: Solid

Analysis Batch: 799186

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endrin	6.7	U	6.7	0.96	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endrin	6.7	U	6.7	0.96	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Toxaphene	67	U	67	24	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Toxaphene	67	U	67	24	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		08/31/21 17:18	09/01/21 04:49	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		10 - 150				08/31/21 17:18	09/01/21 04:49	1
DCB Decachlorobiphenyl	96		10 - 150				08/31/21 17:18	09/01/21 04:49	1
Tetrachloro-m-xylene	89		10 - 133				08/31/21 17:18	09/01/21 04:49	1
Tetrachloro-m-xylene	88		10 - 133				08/31/21 17:18	09/01/21 04:49	1

Lab Sample ID: LCS 460-799143/2-A

Matrix: Solid

Analysis Batch: 799186

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	133	134		ug/Kg		101	70 - 140
4,4'-DDD	133	128		ug/Kg		96	70 - 140
4,4'-DDE	133	135		ug/Kg		101	71 - 137
4,4'-DDE	133	127		ug/Kg		96	71 - 137
4,4'-DDT	133	129		ug/Kg		96	63 - 131
4,4'-DDT	133	122		ug/Kg		91	63 - 131
Aldrin	133	133		ug/Kg		100	74 - 140
Aldrin	133	124		ug/Kg		93	74 - 140
alpha-BHC	133	134		ug/Kg		100	72 - 142
alpha-BHC	133	128		ug/Kg		96	72 - 142
beta-BHC	133	138		ug/Kg		103	65 - 137
beta-BHC	133	133		ug/Kg		99	65 - 137
delta-BHC	133	134		ug/Kg		100	70 - 143
delta-BHC	133	128		ug/Kg		96	70 - 143
Dieldrin	133	133		ug/Kg		100	70 - 135

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-799143/2-A

Matrix: Solid

Analysis Batch: 799186

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dieldrin	133	124		ug/Kg		93	70 - 135
Endosulfan I	133	130		ug/Kg		98	68 - 135
Endosulfan I	133	120		ug/Kg		90	68 - 135
Endosulfan II	133	132		ug/Kg		99	64 - 130
Endosulfan II	133	123		ug/Kg		92	64 - 130
Endosulfan sulfate	133	131		ug/Kg		98	66 - 143
Endosulfan sulfate	133	120		ug/Kg		90	66 - 143
Endrin	133	131		ug/Kg		98	68 - 136
Endrin	133	122		ug/Kg		91	68 - 136
Endrin aldehyde	133	130		ug/Kg		98	68 - 132
Endrin aldehyde	133	121		ug/Kg		91	68 - 132
Endrin ketone	133	120		ug/Kg		90	60 - 150
Endrin ketone	133	110		ug/Kg		83	60 - 150
gamma-BHC (Lindane)	133	135		ug/Kg		101	70 - 134
gamma-BHC (Lindane)	133	130		ug/Kg		97	70 - 134
Heptachlor	133	129		ug/Kg		97	69 - 134
Heptachlor	133	121		ug/Kg		91	69 - 134
Heptachlor epoxide	133	130		ug/Kg		98	70 - 135
Heptachlor epoxide	133	120		ug/Kg		90	70 - 135
Methoxychlor	133	120		ug/Kg		90	57 - 135
Methoxychlor	133	116		ug/Kg		87	57 - 135
cis-Chlordane	133	132		ug/Kg		99	70 - 136
cis-Chlordane	133	122		ug/Kg		92	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	79		10 - 150
DCB Decachlorobiphenyl	83		10 - 150
Tetrachloro-m-xylene	78		10 - 133
Tetrachloro-m-xylene	85		10 - 133

Lab Sample ID: LCSD 460-799143/3-A

Matrix: Solid

Analysis Batch: 799186

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799143

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	133	160		ug/Kg		120	70 - 140	17	30
4,4'-DDD	133	154		ug/Kg		115	70 - 140	19	30
4,4'-DDE	133	160		ug/Kg		120	71 - 137	17	30
4,4'-DDE	133	152		ug/Kg		114	71 - 137	18	30
4,4'-DDT	133	153		ug/Kg		115	63 - 131	17	30
4,4'-DDT	133	147		ug/Kg		110	63 - 131	19	30
Aldrin	133	157		ug/Kg		118	74 - 140	16	30
Aldrin	133	149		ug/Kg		112	74 - 140	18	30
alpha-BHC	133	158		ug/Kg		118	72 - 142	16	30
alpha-BHC	133	154		ug/Kg		115	72 - 142	18	30
beta-BHC	133	166		ug/Kg		124	65 - 137	18	30
beta-BHC	133	159		ug/Kg		119	65 - 137	18	30
delta-BHC	133	160		ug/Kg		120	70 - 143	18	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-799143/3-A

Matrix: Solid

Analysis Batch: 799186

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799143

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
delta-BHC	133	155		ug/Kg		116	70 - 143	19	30
Dieldrin	133	157		ug/Kg		118	70 - 135	17	30
Dieldrin	133	149		ug/Kg		111	70 - 135	18	30
Endosulfan I	133	154		ug/Kg		115	68 - 135	16	30
Endosulfan I	133	143		ug/Kg		107	68 - 135	17	30
Endosulfan II	133	157		ug/Kg		118	64 - 130	17	30
Endosulfan II	133	148		ug/Kg		111	64 - 130	18	30
Endosulfan sulfate	133	155		ug/Kg		116	66 - 143	17	30
Endosulfan sulfate	133	145		ug/Kg		109	66 - 143	19	30
Endrin	133	154		ug/Kg		116	68 - 136	16	30
Endrin	133	145		ug/Kg		109	68 - 136	17	30
Endrin aldehyde	133	155		ug/Kg		116	68 - 132	17	30
Endrin aldehyde	133	146		ug/Kg		109	68 - 132	19	30
Endrin ketone	133	142		ug/Kg		106	60 - 150	16	30
Endrin ketone	133	131		ug/Kg		99	60 - 150	17	30
gamma-BHC (Lindane)	133	160		ug/Kg		120	70 - 134	17	30
gamma-BHC (Lindane)	133	155		ug/Kg		116	70 - 134	18	30
Heptachlor	133	152		ug/Kg		114	69 - 134	16	30
Heptachlor	133	144		ug/Kg		108	69 - 134	18	30
Heptachlor epoxide	133	154		ug/Kg		115	70 - 135	16	30
Heptachlor epoxide	133	144		ug/Kg		108	70 - 135	18	30
Methoxychlor	133	142		ug/Kg		106	57 - 135	17	30
Methoxychlor	133	139		ug/Kg		104	57 - 135	18	30
cis-Chlordane	133	156		ug/Kg		117	70 - 136	17	30
cis-Chlordane	133	147		ug/Kg		110	70 - 136	18	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
DCB Decachlorobiphenyl	78		10 - 150
DCB Decachlorobiphenyl	85		10 - 150
Tetrachloro-m-xylene	77		10 - 133
Tetrachloro-m-xylene	87		10 - 133

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-799141/1-A

Matrix: Solid

Analysis Batch: 799202

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1016	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1221	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1221	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1232	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1232	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1242	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1242	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1248	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1248	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-799141/1-A

Matrix: Solid

Analysis Batch: 799202

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1254	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1254	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1260	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1260	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor-1262	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor-1262	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1268	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Aroclor 1268	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		08/31/21 17:12	09/01/21 06:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	122		37 - 150	08/31/21 17:12	09/01/21 06:18	1
DCB Decachlorobiphenyl	121		37 - 150	08/31/21 17:12	09/01/21 06:18	1
Tetrachloro-m-xylene	113		54 - 150	08/31/21 17:12	09/01/21 06:18	1
Tetrachloro-m-xylene	108		54 - 150	08/31/21 17:12	09/01/21 06:18	1

Lab Sample ID: LCS 460-799141/2-A

Matrix: Solid

Analysis Batch: 799202

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	333	308		ug/Kg		92	65 - 133
Aroclor 1016	333	289		ug/Kg		87	65 - 133
Aroclor 1260	333	324		ug/Kg		97	71 - 150
Aroclor 1260	333	309		ug/Kg		93	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	82		37 - 150
DCB Decachlorobiphenyl	84		37 - 150
Tetrachloro-m-xylene	77		54 - 150
Tetrachloro-m-xylene	75		54 - 150

Lab Sample ID: LCSD 460-799141/3-A

Matrix: Solid

Analysis Batch: 799202

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799141

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor 1016	333	317		ug/Kg		95	65 - 133	3	30
Aroclor 1016	333	298		ug/Kg		89	65 - 133	3	30
Aroclor 1260	333	331		ug/Kg		99	71 - 150	2	30
Aroclor 1260	333	320		ug/Kg		96	71 - 150	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	81		37 - 150
DCB Decachlorobiphenyl	85		37 - 150
Tetrachloro-m-xylene	76		54 - 150
Tetrachloro-m-xylene	75		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: 460-241582-A-1-D MS

Matrix: Solid

Analysis Batch: 799202

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	110	U	553	392		ug/Kg	☼	71	65 - 133
Aroclor 1016	110	U	553	384		ug/Kg	☼	69	65 - 133
Aroclor 1260	110	U	553	405		ug/Kg	☼	73	71 - 150
Aroclor 1260	110	U	553	381	*	ug/Kg	☼	69	71 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	61		37 - 150
DCB Decachlorobiphenyl	62		37 - 150
Tetrachloro-m-xylene	57		54 - 150
Tetrachloro-m-xylene	55		54 - 150

Lab Sample ID: 460-241582-A-1-E MSD

Matrix: Solid

Analysis Batch: 799202

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799141

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor 1016	110	U	553	403		ug/Kg	☼	73	65 - 133	3	30
Aroclor 1016	110	U	553	399		ug/Kg	☼	72	65 - 133	4	30
Aroclor 1260	110	U	553	419		ug/Kg	☼	76	71 - 150	3	30
Aroclor 1260	110	U	553	399		ug/Kg	☼	72	71 - 150	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	62		37 - 150
DCB Decachlorobiphenyl	62		37 - 150
Tetrachloro-m-xylene	59		54 - 150
Tetrachloro-m-xylene	56		54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-799184/1-A

Matrix: Solid

Analysis Batch: 799232

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799184

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		08/31/21 23:45	09/01/21 07:18	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		08/31/21 23:45	09/01/21 07:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	93		65 - 150	08/31/21 23:45	09/01/21 07:18	1
2,4-Dichlorophenylacetic acid	114		65 - 150	08/31/21 23:45	09/01/21 07:18	1

Lab Sample ID: LCS 460-799184/2-A

Matrix: Solid

Analysis Batch: 799232

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799184

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	8.33	10.8	J	ug/Kg		130	58 - 150
Silvex (2,4,5-TP)	8.33	10.4	J	ug/Kg		125	58 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	104		65 - 150
2,4-Dichlorophenylacetic acid	124		65 - 150

Lab Sample ID: LCSD 460-799184/3-A
Matrix: Solid
Analysis Batch: 799232

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 799184

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	8.33	10.9	J	ug/Kg		131	58 - 150	0	30
Silvex (2,4,5-TP)	8.33	10.9	J	ug/Kg		130	58 - 150	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	102		65 - 150
2,4-Dichlorophenylacetic acid	124		65 - 150

Lab Sample ID: MB 460-799564/1-A
Matrix: Solid
Analysis Batch: 799628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 799564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/03/21 00:12	09/03/21 15:47	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/03/21 00:12	09/03/21 15:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	110		65 - 150	09/03/21 00:12	09/03/21 15:47	1
2,4-Dichlorophenylacetic acid	101		65 - 150	09/03/21 00:12	09/03/21 15:47	1

Lab Sample ID: LCS 460-799564/2-A
Matrix: Solid
Analysis Batch: 799628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 799564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	8.33	8.79	J	ug/Kg		106	58 - 150
Silvex (2,4,5-TP)	8.33	9.43	J	ug/Kg		113	58 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	114		65 - 150
2,4-Dichlorophenylacetic acid	111		65 - 150

Lab Sample ID: LCSD 460-799564/3-A
Matrix: Solid
Analysis Batch: 799628

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 799564

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	8.33	9.41	J	ug/Kg		113	58 - 150	7	30
Silvex (2,4,5-TP)	8.33	10.3	J	ug/Kg		123	58 - 150	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	116		65 - 150
2,4-Dichlorophenylacetic acid	112		65 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 460-241982-B-5-B MSD

Matrix: Solid

Analysis Batch: 799628

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799564

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	39	U	9.81	10.8	J	ug/Kg	☼	110	58 - 150	2	30
Silvex (2,4,5-TP)	39	U	9.81	12.5	J	ug/Kg	☼	128	58 - 150	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
2,4-Dichlorophenylacetic acid	118		65 - 150								
2,4-Dichlorophenylacetic acid	117		65 - 150								

Lab Sample ID: 460-241982-C-5-B MS

Matrix: Solid

Analysis Batch: 799628

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799564

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Silvex (2,4,5-TP)	39	U	9.81	10.5	J	ug/Kg	☼	107	58 - 150		
Silvex (2,4,5-TP)	39	U	9.81	12.1	J	ug/Kg	☼	123	58 - 150		
Surrogate	MS %Recovery	MS Qualifier	Limits								
2,4-Dichlorophenylacetic acid	116		65 - 150								
2,4-Dichlorophenylacetic acid	114		65 - 150								

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-166935/1-B

Matrix: Solid

Analysis Batch: 168140

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 166935

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		09/01/21 10:53	09/05/21 13:55	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		09/01/21 10:53	09/05/21 13:55	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-8:2 FTS	93		10 - 178	09/01/21 10:53	09/05/21 13:55	1
M2-6:2 FTS	94		10 - 182	09/01/21 10:53	09/05/21 13:55	1
13C5 PFHxA	96		11 - 138	09/01/21 10:53	09/05/21 13:55	1
13C4 PFHpA	100		15 - 139	09/01/21 10:53	09/05/21 13:55	1
13C8 PFOA	110		21 - 133	09/01/21 10:53	09/05/21 13:55	1
13C9 PFNA	102		15 - 145	09/01/21 10:53	09/05/21 13:55	1
13C6 PFDA	103		21 - 134	09/01/21 10:53	09/05/21 13:55	1
13C7 PFUnA	111		15 - 138	09/01/21 10:53	09/05/21 13:55	1
13C2-PFDoDA	103		28 - 126	09/01/21 10:53	09/05/21 13:55	1
13C2 PFTeDA	104		10 - 138	09/01/21 10:53	09/05/21 13:55	1
13C3 PFBS	120		23 - 130	09/01/21 10:53	09/05/21 13:55	1
13C3 PFHxS	99		24 - 136	09/01/21 10:53	09/05/21 13:55	1
13C8 PFOS	99		31 - 130	09/01/21 10:53	09/05/21 13:55	1
d3-NMeFOSAA	103		10 - 172	09/01/21 10:53	09/05/21 13:55	1
d5-NEtFOSAA	111		10 - 176	09/01/21 10:53	09/05/21 13:55	1
13C8 FOSA	86		25 - 135	09/01/21 10:53	09/05/21 13:55	1
13C4 PFBA	96		12 - 137	09/01/21 10:53	09/05/21 13:55	1
13C5 PFPeA	100		12 - 135	09/01/21 10:53	09/05/21 13:55	1

Lab Sample ID: LCS 410-166935/2-B

Matrix: Solid

Analysis Batch: 168140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.0	23.83		ug/Kg		95	61 - 147
Perfluoroheptanoic acid	25.0	24.47		ug/Kg		98	61 - 151
Perfluorooctanoic acid	25.0	22.86		ug/Kg		91	62 - 144
Perfluorononanoic acid	25.0	23.14		ug/Kg		93	62 - 148
Perfluorodecanoic acid	25.0	24.23		ug/Kg		97	62 - 142
Perfluorotridecanoic acid	25.0	23.55		ug/Kg		94	57 - 152
Perfluorotetradecanoic acid	25.0	23.44		ug/Kg		94	60 - 147
Perfluorobutanesulfonic acid	22.1	17.09		ug/Kg		77	62 - 137
Perfluorohexanesulfonic acid	22.8	21.78		ug/Kg		96	57 - 135
Perfluorooctanesulfonic acid	23.1	21.43		ug/Kg		93	48 - 134
NEtFOSAA	25.0	24.17		ug/Kg		97	50 - 140
NMeFOSAA	25.0	23.64		ug/Kg		95	53 - 149
Perfluoroheptanesulfonic acid	23.8	18.76		ug/Kg		79	67 - 138
Perfluorodecanesulfonic acid	24.1	19.58		ug/Kg		81	60 - 142
Perfluorooctanesulfonamide	25.0	18.53		ug/Kg		74	52 - 132
Perfluorobutanoic acid	25.0	20.72		ug/Kg		83	50 - 185
Perfluoroundecanoic acid	25.0	24.71		ug/Kg		99	62 - 144
Perfluorododecanoic acid	25.0	22.38		ug/Kg		90	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	18.67		ug/Kg		79	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	19.01		ug/Kg		79	50 - 147
Perfluoropentanoic acid	25.0	20.90		ug/Kg		84	69 - 144

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	112		10 - 178
M2-6:2 FTS	110		10 - 182
13C5 PFHxA	109		11 - 138
13C4 PFHpA	112		15 - 139
13C8 PFOA	122		21 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-166935/2-B

Matrix: Solid

Analysis Batch: 168140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166935

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C9 PFNA	118		15 - 145
13C6 PFDA	110		21 - 134
13C7 PFUnA	119		15 - 138
13C2-PFDoDA	113		28 - 126
13C2 PFTeDA	115		10 - 138
13C3 PFBS	143 *		23 - 130
13C3 PFHxS	116		24 - 136
13C8 PFOS	114		31 - 130
d3-NMeFOSAA	120		10 - 172
d5-NEtFOSAA	122		10 - 176
13C8 FOSA	105		25 - 135
13C4 PFBA	115		12 - 137
13C5 PFPeA	116		12 - 135

Lab Sample ID: LCSD 410-166935/3-B

Matrix: Solid

Analysis Batch: 168140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 166935

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid	25.0	23.99		ug/Kg		96	61 - 147	1	30
Perfluoroheptanoic acid	25.0	24.06		ug/Kg		96	61 - 151	2	30
Perfluorooctanoic acid	25.0	23.71		ug/Kg		95	62 - 144	4	30
Perfluorononanoic acid	25.0	23.87		ug/Kg		95	62 - 148	3	30
Perfluorodecanoic acid	25.0	23.23		ug/Kg		93	62 - 142	4	30
Perfluorotridecanoic acid	25.0	24.30		ug/Kg		97	57 - 152	3	30
Perfluorotetradecanoic acid	25.0	24.97		ug/Kg		100	60 - 147	6	30
Perfluorobutanesulfonic acid	22.1	18.93		ug/Kg		86	62 - 137	10	30
Perfluorohexanesulfonic acid	22.8	21.65		ug/Kg		95	57 - 135	1	30
Perfluorooctanesulfonic acid	23.1	22.31		ug/Kg		96	48 - 134	4	30
NEtFOSAA	25.0	24.66		ug/Kg		99	50 - 140	2	30
NMeFOSAA	25.0	24.42		ug/Kg		98	53 - 149	3	30
Perfluoroheptanesulfonic acid	23.8	20.09		ug/Kg		84	67 - 138	7	30
Perfluorodecanesulfonic acid	24.1	20.08		ug/Kg		83	60 - 142	3	30
Perfluorooctanesulfonamide	25.0	19.52		ug/Kg		78	52 - 132	5	30
Perfluorobutanoic acid	25.0	23.01		ug/Kg		92	50 - 185	10	30
Perfluoroundecanoic acid	25.0	22.66		ug/Kg		91	62 - 144	9	30
Perfluorododecanoic acid	25.0	24.34		ug/Kg		97	60 - 147	8	30
6:2 Fluorotelomer sulfonic acid	23.7	18.96		ug/Kg		80	53 - 137	2	30
8:2 Fluorotelomer sulfonic acid	24.0	18.58		ug/Kg		78	50 - 147	2	30
Perfluoropentanoic acid	25.0	20.65		ug/Kg		83	69 - 144	1	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
M2-8:2 FTS	127		10 - 178
M2-6:2 FTS	121		10 - 182
13C5 PFHxA	119		11 - 138
13C4 PFHpA	118		15 - 139
13C8 PFOA	130		21 - 133
13C9 PFNA	126		15 - 145
13C6 PFDA	128		21 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-166935/3-B

Matrix: Solid

Analysis Batch: 168140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 166935

Isotope Dilution	LCSD LCSD		Limits
	%Recovery	Qualifier	
13C7 PUnA	138		15 - 138
13C2-PFDoDA	126		28 - 126
13C2 PFTeDA	125		10 - 138
13C3 PFBS	149 *		23 - 130
13C3 PFHxS	125		24 - 136
13C8 PFOS	122		31 - 130
d3-NMeFOSAA	136		10 - 172
d5-NEtFOSAA	132		10 - 176
13C8 FOSA	126		25 - 135
13C4 PFBA	123		12 - 137
13C5 PFPeA	128		12 - 135

Lab Sample ID: MB 410-169575/1-B

Matrix: Solid

Analysis Batch: 170039

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169575

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluoroheptanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorooctanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorononanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorodecanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorotridecanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorotetradecanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorobutanesulfonic acid	0.13	U	0.13	0.025	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorohexanesulfonic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorooctanesulfonic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
NEtFOSAA	0.13	U	0.13	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
NMeFOSAA	0.13	U	0.13	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluoroheptanesulfonic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorodecanesulfonic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorooctanesulfonamide	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorobutanoic acid	0.13	U	0.13	0.050	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluoroundecanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluorododecanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
6:2 Fluorotelomer sulfonic acid	0.13	U	0.13	0.038	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
8:2 Fluorotelomer sulfonic acid	0.19	U	0.19	0.038	ug/Kg		09/09/21 12:10	09/10/21 13:42	1
Perfluoropentanoic acid	0.038	U	0.038	0.013	ug/Kg		09/09/21 12:10	09/10/21 13:42	1

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-8:2 FTS	37		10 - 178	09/09/21 12:10	09/10/21 13:42	1
M2-6:2 FTS	40		10 - 182	09/09/21 12:10	09/10/21 13:42	1
13C5 PFHxA	34		11 - 138	09/09/21 12:10	09/10/21 13:42	1
13C4 PFHpA	34		15 - 139	09/09/21 12:10	09/10/21 13:42	1
13C8 PFOA	36		21 - 133	09/09/21 12:10	09/10/21 13:42	1
13C9 PFNA	35		15 - 145	09/09/21 12:10	09/10/21 13:42	1
13C6 PFDA	36		21 - 134	09/09/21 12:10	09/10/21 13:42	1
13C7 PUnA	34		15 - 138	09/09/21 12:10	09/10/21 13:42	1
13C2-PFDoDA	31		28 - 126	09/09/21 12:10	09/10/21 13:42	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-169575/1-B

Matrix: Solid

Analysis Batch: 170039

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169575

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFTeDA	38		10 - 138	09/09/21 12:10	09/10/21 13:42	1
13C3 PFBS	38		23 - 130	09/09/21 12:10	09/10/21 13:42	1
13C3 PFHxS	34		24 - 136	09/09/21 12:10	09/10/21 13:42	1
13C8 PFOS	36		31 - 130	09/09/21 12:10	09/10/21 13:42	1
d3-NMeFOSAA	27		10 - 172	09/09/21 12:10	09/10/21 13:42	1
d5-NEtFOSAA	27		10 - 176	09/09/21 12:10	09/10/21 13:42	1
13C8 FOSA	34		25 - 135	09/09/21 12:10	09/10/21 13:42	1
13C4 PFBA	34		12 - 137	09/09/21 12:10	09/10/21 13:42	1
13C5 PFPeA	34		12 - 135	09/09/21 12:10	09/10/21 13:42	1

Lab Sample ID: LCS 410-169575/2-B

Matrix: Solid

Analysis Batch: 170039

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	6.25	4.760		ug/Kg		76	61 - 147
Perfluoroheptanoic acid	6.25	4.652		ug/Kg		74	61 - 151
Perfluorooctanoic acid	6.25	4.358		ug/Kg		70	62 - 144
Perfluorononanoic acid	6.25	4.842		ug/Kg		77	62 - 148
Perfluorodecanoic acid	6.25	4.438		ug/Kg		71	62 - 142
Perfluorotridecanoic acid	6.25	4.878		ug/Kg		78	57 - 152
Perfluorotetradecanoic acid	6.25	4.522		ug/Kg		72	60 - 147
Perfluorobutanesulfonic acid	5.53	3.682		ug/Kg		67	62 - 137
Perfluorohexanesulfonic acid	5.70	4.126		ug/Kg		72	57 - 135
Perfluorooctanesulfonic acid	5.78	4.274		ug/Kg		74	48 - 134
NEtFOSAA	6.25	4.611	E	ug/Kg		74	50 - 140
NMeFOSAA	6.25	4.540	E	ug/Kg		73	53 - 149
Perfluoroheptanesulfonic acid	5.95	4.511		ug/Kg		76	67 - 138
Perfluorodecanesulfonic acid	6.03	4.528		ug/Kg		75	60 - 142
Perfluorooctanesulfonamide	6.25	4.992		ug/Kg		80	52 - 132
Perfluorobutanoic acid	6.25	4.631		ug/Kg		74	50 - 185
Perfluoroundecanoic acid	6.25	4.486		ug/Kg		72	62 - 144
Perfluorododecanoic acid	6.25	4.616		ug/Kg		74	60 - 147
6:2 Fluorotelomer sulfonic acid	5.93	4.219		ug/Kg		71	53 - 137
8:2 Fluorotelomer sulfonic acid	5.99	4.053		ug/Kg		68	50 - 147
Perfluoropentanoic acid	6.25	4.777		ug/Kg		76	69 - 144

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	36		10 - 178
M2-6:2 FTS	39		10 - 182
13C5 PFHxA	34		11 - 138
13C4 PFHpA	32		15 - 139
13C8 PFOA	35		21 - 133
13C9 PFNA	33		15 - 145
13C6 PFDA	35		21 - 134
13C7 PFUnA	34		15 - 138
13C2-PFDoDA	33		28 - 126
13C2 PFTeDA	35		10 - 138
13C3 PFBS	40		23 - 130

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-169575/2-B

Matrix: Solid

Analysis Batch: 170039

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169575

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C3 PFHxS	34		24 - 136
13C8 PFOS	34		31 - 130
d3-NMeFOSAA	28		10 - 172
d5-NEtFOSAA	26		10 - 176
13C8 FOSA	33		25 - 135
13C4 PFBA	33		12 - 137
13C5 PFPeA	34		12 - 135

Lab Sample ID: LCSD 410-169575/3-B

Matrix: Solid

Analysis Batch: 170039

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169575

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Perfluorohexanoic acid	6.25	4.585		ug/Kg		73	61 - 147	4		30
Perfluoroheptanoic acid	6.25	4.655		ug/Kg		74	61 - 151	0		30
Perfluorooctanoic acid	6.25	4.529		ug/Kg		72	62 - 144	4		30
Perfluorononanoic acid	6.25	4.603		ug/Kg		74	62 - 148	5		30
Perfluorodecanoic acid	6.25	4.783		ug/Kg		77	62 - 142	7		30
Perfluorotridecanoic acid	6.25	4.683		ug/Kg		75	57 - 152	4		30
Perfluorotetradecanoic acid	6.25	4.957		ug/Kg		79	60 - 147	9		30
Perfluorobutanesulfonic acid	5.53	3.808		ug/Kg		69	62 - 137	3		30
Perfluorohexanesulfonic acid	5.70	4.154		ug/Kg		73	57 - 135	1		30
Perfluorooctanesulfonic acid	5.78	4.320		ug/Kg		75	48 - 134	1		30
NEtFOSAA	6.25	5.168	E	ug/Kg		83	50 - 140	11		30
NMeFOSAA	6.25	4.886	E	ug/Kg		78	53 - 149	7		30
Perfluoroheptanesulfonic acid	5.95	4.380		ug/Kg		74	67 - 138	3		30
Perfluorodecanesulfonic acid	6.03	4.348		ug/Kg		72	60 - 142	4		30
Perfluorooctanesulfonamide	6.25	4.877		ug/Kg		78	52 - 132	2		30
Perfluorobutanoic acid	6.25	4.593		ug/Kg		73	50 - 185	1		30
Perfluoroundecanoic acid	6.25	4.787		ug/Kg		77	62 - 144	6		30
Perfluorododecanoic acid	6.25	4.665		ug/Kg		75	60 - 147	1		30
6:2 Fluorotelomer sulfonic acid	5.93	4.170		ug/Kg		70	53 - 137	1		30
8:2 Fluorotelomer sulfonic acid	5.99	4.465		ug/Kg		75	50 - 147	10		30
Perfluoropentanoic acid	6.25	4.920		ug/Kg		79	69 - 144	3		30

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	36		10 - 178
M2-6:2 FTS	38		10 - 182
13C5 PFHxA	33		11 - 138
13C4 PFHpA	32		15 - 139
13C8 PFOA	36		21 - 133
13C9 PFNA	32		15 - 145
13C6 PFDA	35		21 - 134
13C7 PFUnA	33		15 - 138
13C2-PFDoDA	33		28 - 126
13C2 PFTeDA	33		10 - 138
13C3 PFBS	38		23 - 130
13C3 PFHxS	33		24 - 136
13C8 PFOS	33		31 - 130

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-169575/3-B

Matrix: Solid

Analysis Batch: 170039

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169575

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
d3-NMeFOSAA	28		10 - 172
d5-NEtFOSAA	26		10 - 176
13C8 FOSA	34		25 - 135
13C4 PFBA	33		12 - 137
13C5 PFPeA	33		12 - 135

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-799229/1-A

Matrix: Solid

Analysis Batch: 799309

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799229

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	1.0	U	1.0	0.089	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Barium	2.0	U	2.0	0.15	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Chromium	2.0	U	2.0	0.17	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Copper	2.0	U	2.0	0.22	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Manganese	4.0	U	4.0	0.40	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Nickel	2.0	U	2.0	0.19	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Lead	0.60	U	0.60	0.20	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Selenium	1.3	U	1.3	0.12	mg/Kg		09/01/21 06:34	09/01/21 16:54	1
Zinc	8.0	U	8.0	2.3	mg/Kg		09/01/21 06:34	09/01/21 16:54	1

Lab Sample ID: LCSSRM 460-799229/2-A ^5

Matrix: Solid

Analysis Batch: 799309

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799229

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Silver	33.6	21.25		mg/Kg		63.2	48.2 - 73.5	
Arsenic	140	153.3		mg/Kg		109.5	82.9 - 117.9	
Barium	202	206.1		mg/Kg		102.0	81.2 - 118.3	
Beryllium	42.6	44.99		mg/Kg		105.6	81.0 - 119.0	
Cadmium	97.9	107.4		mg/Kg		109.7	80.0 - 119.5	
Chromium	60.4	65.97		mg/Kg		109.2	80.3 - 119.7	
Copper	122	134.0		mg/Kg		109.8	82.8 - 117.2	
Manganese	457	480.2		mg/Kg		105.1	79.6 - 120.6	
Nickel	151	170.9		mg/Kg		113.2	79.5 - 121.2	
Lead	56.7	60.69		mg/Kg		107.0	82.9 - 116.9	
Selenium	35.5	41.58		mg/Kg		117.1	77.5 - 122.3	

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-799229/2-A ^5
Matrix: Solid
Analysis Batch: 799309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 799229

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	186	208.0		mg/Kg		111.8	79.0 - 121.0

Lab Sample ID: 460-241920-F-2-D MS
Matrix: Solid
Analysis Batch: 799309

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 799229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	1.1	U	5.31	5.41		mg/Kg	✱	102	75 - 125
Arsenic	0.88	J	10.6	11.92		mg/Kg	✱	104	75 - 125
Barium	17.8		10.6	28.40		mg/Kg	✱	99	75 - 125
Beryllium	0.26	J	5.31	5.48		mg/Kg	✱	98	75 - 125
Cadmium	1.1	U	5.31	5.48		mg/Kg	✱	103	75 - 125
Chromium	9.1		10.6	20.64		mg/Kg	✱	109	75 - 125
Copper	10.1		10.6	20.61		mg/Kg	✱	98	75 - 125
Manganese	205		53.1	256.9		mg/Kg	✱	97	75 - 125
Nickel	22.2		10.6	32.07		mg/Kg	✱	92	75 - 125
Lead	3.0		5.31	8.25		mg/Kg	✱	98	75 - 125
Selenium	1.3	U	10.6	10.47		mg/Kg	✱	99	75 - 125
Zinc	21.2		53.1	73.71		mg/Kg	✱	99	75 - 125

Lab Sample ID: 460-241920-A-2-B DU
Matrix: Solid
Analysis Batch: 799309

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 799229

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.1	U	1.1	U	mg/Kg	✱	NC	20
Arsenic	0.88	J	0.909	J	mg/Kg	✱	3	20
Barium	17.8		17.73		mg/Kg	✱	0.6	20
Beryllium	0.26	J	0.264	J	mg/Kg	✱	0.4	20
Cadmium	1.1	U	1.1	U	mg/Kg	✱	NC	20
Chromium	9.1		9.02		mg/Kg	✱	0.7	20
Copper	10.1		10.02		mg/Kg	✱	1	20
Manganese	205		201.6		mg/Kg	✱	2	20
Nickel	22.2		21.93		mg/Kg	✱	1	20
Lead	3.0		3.08		mg/Kg	✱	1	20
Selenium	1.3	U	1.3	U	mg/Kg	✱	NC	20
Zinc	21.2		20.89		mg/Kg	✱	1	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-799196/1-A
Matrix: Solid
Analysis Batch: 799282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 799196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0040	mg/Kg		09/01/21 03:21	09/01/21 07:10	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 460-799196/2-A ^40

Matrix: Solid

Analysis Batch: 799282

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799196

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	16.5	15.48		mg/Kg		93.8	74.5 - 124.8

Lab Sample ID: 460-241920-F-2-B MS

Matrix: Solid

Analysis Batch: 799282

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.017	U	0.0857	0.0843		mg/Kg	✱	98	80 - 120

Lab Sample ID: 460-241920-A-2-A DU

Matrix: Solid

Analysis Batch: 799282

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 799196

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.017	U	0.017	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-799199/1-A

Matrix: Solid

Analysis Batch: 799282

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799199

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0040	mg/Kg		09/01/21 03:37	09/01/21 08:02	1

Lab Sample ID: LCSSRM 460-799199/2-A ^40

Matrix: Solid

Analysis Batch: 799282

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799199

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	16.5	15.56		mg/Kg		94.3	74.5 - 124.8

Lab Sample ID: 460-241700-A-1-F MS

Matrix: Solid

Analysis Batch: 799282

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799199

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.039		0.0878	0.101	N	mg/Kg	✱	70	80 - 120

Lab Sample ID: 460-241700-A-1-E DU

Matrix: Solid

Analysis Batch: 799282

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 799199

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.039		0.0404		mg/Kg	✱	2	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-799891/1-A

Matrix: Solid

Analysis Batch: 799905

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799891

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/05/21 09:28	09/05/21 13:45	1

Lab Sample ID: LCSI 460-799891/3-A

Matrix: Solid

Analysis Batch: 799905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799891

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	681.4		mg/Kg		96	80 - 120

Lab Sample ID: LCSSRM 460-799891/2-A

Matrix: Solid

Analysis Batch: 799905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799891

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	12.38		mg/Kg		100.3	84.0 - 114.6

Lab Sample ID: LCSSRM 460-799891/4-A

Matrix: Solid

Analysis Batch: 799905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799891

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	154	80.07		mg/Kg		52.0	21.2 - 120.1

Lab Sample ID: 460-242062-E-4-Q MSS

Matrix: Solid

Analysis Batch: 799905

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799891

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	1.3	J	44.8	44.56		mg/Kg	✱	97	75 - 125

Lab Sample ID: 460-242062-E-4-R MSI

Matrix: Solid

Analysis Batch: 799905

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799891

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	1.3	J	793	752.0		mg/Kg	✱	95	75 - 125

Lab Sample ID: 460-242062-E-4-P DU

Matrix: Solid

Analysis Batch: 799905

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 799891

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	1.3	J	2.2	U	mg/Kg	✱	NC	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-799758/2-A

Matrix: Solid

Analysis Batch: 799930

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799758

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		09/03/21 21:48	09/05/21 13:05	1

Lab Sample ID: LCSSRM 460-799758/3-A ^20

Matrix: Solid

Analysis Batch: 799930

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799758

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	95.3	48.96		mg/Kg		51.4	23.7 - 123.8

Lab Sample ID: 460-241995-E-1-D MS

Matrix: Solid

Analysis Batch: 799930

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	1.5		6.23	4.83		mg/Kg	⚠	54	11 - 108

Lab Sample ID: 460-241995-E-1-E MSD

Matrix: Solid

Analysis Batch: 799930

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	1.5		5.80	4.01		mg/Kg	⚠	44	11 - 108	19	40

Lab Sample ID: 460-242064-A-1-M MS

Matrix: Solid

Analysis Batch: 799930

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.34		4.94	2.43		mg/Kg	⚠	42	11 - 108

Lab Sample ID: 460-242064-A-1-N MSD

Matrix: Solid

Analysis Batch: 799930

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.34		4.76	4.00	N	mg/Kg	⚠	77	11 - 108	49	40

Method: Moisture - Percent Moisture

Lab Sample ID: 460-241856-1 DU

Matrix: Solid

Analysis Batch: 799075

Client Sample ID: 016_LB-35_15-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	24.9		24.8		%		0.3	20
Percent Solids	75.1		75.2		%		0.09	20

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

GC/MS VOA

Prep Batch: 799093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	5035	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	5035	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	5035	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	5035	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	5035	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	5035	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	5035	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	5035	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	5035	

Analysis Batch: 799122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	8260D	799093
460-241856-2	017_LB-35_5-7	Total/NA	Solid	8260D	799093
460-241856-4	019_LB-36_15-16	Total/NA	Solid	8260D	799093
460-241856-5	020_LB-28_5-7	Total/NA	Solid	8260D	799093
460-241856-12	035_LB-30_16-17	Total/NA	Solid	8260D	799093
MB 460-799122/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-799122/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-799122/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 799252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-3	018_LB-36_5-7	Total/NA	Solid	8260D	799093
460-241856-6	021_LB-37_15-16	Total/NA	Solid	8260D	799093
460-241856-9	032_LB-29_5-7	Total/NA	Solid	8260D	799093
460-241856-10	033_LB-29_15-16	Total/NA	Solid	8260D	799093
MB 460-799252/7	Method Blank	Total/NA	Solid	8260D	
LCS 460-799252/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-799252/11	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 799422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-13	036_TB-1B	Total/NA	Water	8260D	
MB 460-799422/8	Method Blank	Total/NA	Water	8260D	
LCS 460-799422/4	Lab Control Sample	Total/NA	Water	8260D	
460-241844-C-1 MS	Matrix Spike	Total/NA	Water	8260D	
460-241844-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 799162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	3546	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	3546	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	3546	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	3546	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	3546	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	3546	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	3546	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

GC/MS Semi VOA (Continued)

Prep Batch: 799162 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-799162/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799162/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799162/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241746-E-1-B MS	Matrix Spike	Total/NA	Solid	3546	
460-241746-E-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 799163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-12	035_LB-30_16-17	Total/NA	Solid	3546	
MB 460-799163/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799163/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799163/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241854-E-1-A MS	Matrix Spike	Total/NA	Solid	3546	
460-241854-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 799208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	8270E	799162
460-241856-2	017_LB-35_5-7	Total/NA	Solid	8270E	799162
460-241856-3	018_LB-36_5-7	Total/NA	Solid	8270E	799162
460-241856-4	019_LB-36_15-16	Total/NA	Solid	8270E	799162
460-241856-5	020_LB-28_5-7	Total/NA	Solid	8270E	799162
460-241856-6	021_LB-37_15-16	Total/NA	Solid	8270E	799162
460-241856-9	032_LB-29_5-7	Total/NA	Solid	8270E	799162
460-241856-10	033_LB-29_15-16	Total/NA	Solid	8270E	799162
MB 460-799162/1-A	Method Blank	Total/NA	Solid	8270E	799162
LCS 460-799162/2-A	Lab Control Sample	Total/NA	Solid	8270E	799162
LCSD 460-799162/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	799162
460-241746-E-1-B MS	Matrix Spike	Total/NA	Solid	8270E	799162
460-241746-E-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	799162

Analysis Batch: 799215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-12	035_LB-30_16-17	Total/NA	Solid	8270E	799163
MB 460-799163/1-A	Method Blank	Total/NA	Solid	8270E	799163
LCS 460-799163/2-A	Lab Control Sample	Total/NA	Solid	8270E	799163
LCSD 460-799163/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	799163
460-241854-E-1-A MS	Matrix Spike	Total/NA	Solid	8270E	799163
460-241854-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	799163

GC Semi VOA

Prep Batch: 799141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	3546	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	3546	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	3546	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	3546	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	3546	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	3546	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

GC Semi VOA (Continued)

Prep Batch: 799141 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-10	033_LB-29_15-16	Total/NA	Solid	3546	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	3546	
MB 460-799141/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799141/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799141/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241582-A-1-D MS	Matrix Spike	Total/NA	Solid	3546	
460-241582-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 799143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	3546	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	3546	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	3546	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	3546	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	3546	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	3546	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	3546	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	3546	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	3546	
MB 460-799143/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799143/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799143/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 799184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	8151A	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	8151A	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	8151A	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	8151A	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	8151A	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	8151A	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	8151A	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	8151A	
MB 460-799184/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-799184/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-799184/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 799186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-799143/1-A	Method Blank	Total/NA	Solid	8081B	799143
LCS 460-799143/2-A	Lab Control Sample	Total/NA	Solid	8081B	799143
LCSD 460-799143/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	799143

Analysis Batch: 799189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	8081B	799143
460-241856-2	017_LB-35_5-7	Total/NA	Solid	8081B	799143
460-241856-3	018_LB-36_5-7	Total/NA	Solid	8081B	799143
460-241856-4	019_LB-36_15-16	Total/NA	Solid	8081B	799143
460-241856-5	020_LB-28_5-7	Total/NA	Solid	8081B	799143
460-241856-6	021_LB-37_15-16	Total/NA	Solid	8081B	799143

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

GC Semi VOA (Continued)

Analysis Batch: 799189 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-9	032_LB-29_5-7	Total/NA	Solid	8081B	799143
460-241856-10	033_LB-29_15-16	Total/NA	Solid	8081B	799143
460-241856-12	035_LB-30_16-17	Total/NA	Solid	8081B	799143

Analysis Batch: 799202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	8082A	799141
460-241856-2	017_LB-35_5-7	Total/NA	Solid	8082A	799141
460-241856-3	018_LB-36_5-7	Total/NA	Solid	8082A	799141
460-241856-4	019_LB-36_15-16	Total/NA	Solid	8082A	799141
460-241856-5	020_LB-28_5-7	Total/NA	Solid	8082A	799141
460-241856-6	021_LB-37_15-16	Total/NA	Solid	8082A	799141
460-241856-9	032_LB-29_5-7	Total/NA	Solid	8082A	799141
460-241856-10	033_LB-29_15-16	Total/NA	Solid	8082A	799141
460-241856-12	035_LB-30_16-17	Total/NA	Solid	8082A	799141
MB 460-799141/1-A	Method Blank	Total/NA	Solid	8082A	799141
LCS 460-799141/2-A	Lab Control Sample	Total/NA	Solid	8082A	799141
LCSD 460-799141/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	799141
460-241582-A-1-D MS	Matrix Spike	Total/NA	Solid	8082A	799141
460-241582-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	799141

Analysis Batch: 799232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	8151A	799184
460-241856-2	017_LB-35_5-7	Total/NA	Solid	8151A	799184
460-241856-3	018_LB-36_5-7	Total/NA	Solid	8151A	799184
460-241856-4	019_LB-36_15-16	Total/NA	Solid	8151A	799184
460-241856-5	020_LB-28_5-7	Total/NA	Solid	8151A	799184
460-241856-6	021_LB-37_15-16	Total/NA	Solid	8151A	799184
460-241856-9	032_LB-29_5-7	Total/NA	Solid	8151A	799184
460-241856-10	033_LB-29_15-16	Total/NA	Solid	8151A	799184
MB 460-799184/1-A	Method Blank	Total/NA	Solid	8151A	799184
LCS 460-799184/2-A	Lab Control Sample	Total/NA	Solid	8151A	799184
LCSD 460-799184/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	799184

Prep Batch: 799564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-12	035_LB-30_16-17	Total/NA	Solid	8151A	
MB 460-799564/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-799564/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-799564/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-241982-B-5-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	
460-241982-C-5-B MS	Matrix Spike	Total/NA	Solid	8151A	

Analysis Batch: 799628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-12	035_LB-30_16-17	Total/NA	Solid	8151A	799564
MB 460-799564/1-A	Method Blank	Total/NA	Solid	8151A	799564
LCS 460-799564/2-A	Lab Control Sample	Total/NA	Solid	8151A	799564
LCSD 460-799564/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	799564
460-241982-B-5-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	799564

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

GC Semi VOA (Continued)

Analysis Batch: 799628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	Matrix Spike	Total/NA	Solid	8151A	799564

LCMS

Prep Batch: 166935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	SHAKE	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	SHAKE	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	SHAKE	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	SHAKE	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	SHAKE	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	SHAKE	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	SHAKE	
MB 410-166935/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-166935/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
LCSD 410-166935/3-B	Lab Control Sample Dup	Total/NA	Solid	SHAKE	

Cleanup Batch: 167072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	Extract Aliquot	166935
460-241856-2	017_LB-35_5-7	Total/NA	Solid	Extract Aliquot	166935
460-241856-3	018_LB-36_5-7	Total/NA	Solid	Extract Aliquot	166935
460-241856-4	019_LB-36_15-16	Total/NA	Solid	Extract Aliquot	166935
460-241856-6	021_LB-37_15-16	Total/NA	Solid	Extract Aliquot	166935
460-241856-9	032_LB-29_5-7	Total/NA	Solid	Extract Aliquot	166935
460-241856-12	035_LB-30_16-17	Total/NA	Solid	Extract Aliquot	166935
MB 410-166935/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	166935
LCS 410-166935/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	166935
LCSD 410-166935/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	166935

Analysis Batch: 168140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	537 IDA	167072
460-241856-2	017_LB-35_5-7	Total/NA	Solid	537 IDA	167072
460-241856-3	018_LB-36_5-7	Total/NA	Solid	537 IDA	167072
460-241856-4	019_LB-36_15-16	Total/NA	Solid	537 IDA	167072
460-241856-6	021_LB-37_15-16	Total/NA	Solid	537 IDA	167072
460-241856-9	032_LB-29_5-7	Total/NA	Solid	537 IDA	167072
460-241856-12	035_LB-30_16-17	Total/NA	Solid	537 IDA	167072
MB 410-166935/1-B	Method Blank	Total/NA	Solid	537 IDA	167072
LCS 410-166935/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	167072
LCSD 410-166935/3-B	Lab Control Sample Dup	Total/NA	Solid	537 IDA	167072

Prep Batch: 169575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-5	020_LB-28_5-7	Total/NA	Solid	SHAKE	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	SHAKE	
MB 410-169575/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-169575/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
LCSD 410-169575/3-B	Lab Control Sample Dup	Total/NA	Solid	SHAKE	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

LCMS

Cleanup Batch: 169576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-5	020_LB-28_5-7	Total/NA	Solid	Extract Aliquot	169575
460-241856-10	033_LB-29_15-16	Total/NA	Solid	Extract Aliquot	169575
MB 410-169575/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	169575
LCS 410-169575/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	169575
LCSD 410-169575/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	169575

Analysis Batch: 170039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-5	020_LB-28_5-7	Total/NA	Solid	537 IDA	169576
460-241856-10	033_LB-29_15-16	Total/NA	Solid	537 IDA	169576
MB 410-169575/1-B	Method Blank	Total/NA	Solid	537 IDA	169576
LCS 410-169575/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	169576
LCSD 410-169575/3-B	Lab Control Sample Dup	Total/NA	Solid	537 IDA	169576

Metals

Prep Batch: 799196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	7471B	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	7471B	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	7471B	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	7471B	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	7471B	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	7471B	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	7471B	
MB 460-799196/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-799196/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-241920-F-2-B MS	Matrix Spike	Total/NA	Solid	7471B	
460-241920-A-2-A DU	Duplicate	Total/NA	Solid	7471B	

Prep Batch: 799199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-10	033_LB-29_15-16	Total/NA	Solid	7471B	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	7471B	
MB 460-799199/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-799199/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-241700-A-1-F MS	Matrix Spike	Total/NA	Solid	7471B	
460-241700-A-1-E DU	Duplicate	Total/NA	Solid	7471B	

Prep Batch: 799229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	3050B	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	3050B	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	3050B	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	3050B	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	3050B	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	3050B	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	3050B	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	3050B	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	3050B	
MB 460-799229/1-A	Method Blank	Total/NA	Solid	3050B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Metals (Continued)

Prep Batch: 799229 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 460-799229/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-241920-F-2-D MS	Matrix Spike	Total/NA	Solid	3050B	
460-241920-A-2-B DU	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 799282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	7471B	799196
460-241856-2	017_LB-35_5-7	Total/NA	Solid	7471B	799196
460-241856-3	018_LB-36_5-7	Total/NA	Solid	7471B	799196
460-241856-4	019_LB-36_15-16	Total/NA	Solid	7471B	799196
460-241856-5	020_LB-28_5-7	Total/NA	Solid	7471B	799196
460-241856-6	021_LB-37_15-16	Total/NA	Solid	7471B	799196
460-241856-9	032_LB-29_5-7	Total/NA	Solid	7471B	799196
460-241856-10	033_LB-29_15-16	Total/NA	Solid	7471B	799199
460-241856-12	035_LB-30_16-17	Total/NA	Solid	7471B	799199
MB 460-799196/1-A	Method Blank	Total/NA	Solid	7471B	799196
MB 460-799199/1-A	Method Blank	Total/NA	Solid	7471B	799199
LCSSRM 460-799196/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	799196
LCSSRM 460-799199/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	799199
460-241700-A-1-F MS	Matrix Spike	Total/NA	Solid	7471B	799199
460-241920-F-2-B MS	Matrix Spike	Total/NA	Solid	7471B	799196
460-241700-A-1-E DU	Duplicate	Total/NA	Solid	7471B	799199
460-241920-A-2-A DU	Duplicate	Total/NA	Solid	7471B	799196

Analysis Batch: 799309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	6020B	799229
460-241856-2	017_LB-35_5-7	Total/NA	Solid	6020B	799229
460-241856-3	018_LB-36_5-7	Total/NA	Solid	6020B	799229
460-241856-4	019_LB-36_15-16	Total/NA	Solid	6020B	799229
460-241856-5	020_LB-28_5-7	Total/NA	Solid	6020B	799229
460-241856-6	021_LB-37_15-16	Total/NA	Solid	6020B	799229
460-241856-9	032_LB-29_5-7	Total/NA	Solid	6020B	799229
460-241856-10	033_LB-29_15-16	Total/NA	Solid	6020B	799229
460-241856-12	035_LB-30_16-17	Total/NA	Solid	6020B	799229
MB 460-799229/1-A	Method Blank	Total/NA	Solid	6020B	799229
LCSSRM 460-799229/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	799229
460-241920-F-2-D MS	Matrix Spike	Total/NA	Solid	6020B	799229
460-241920-A-2-B DU	Duplicate	Total/NA	Solid	6020B	799229

General Chemistry

Analysis Batch: 799075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	Moisture	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	Moisture	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	Moisture	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	Moisture	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	Moisture	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	Moisture	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	Moisture	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

General Chemistry (Continued)

Analysis Batch: 799075 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-10	033_LB-29_15-16	Total/NA	Solid	Moisture	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	Moisture	
460-241856-1 DU	016_LB-35_15-16	Total/NA	Solid	Moisture	

Prep Batch: 799758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	9012B	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	9012B	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	9012B	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	9012B	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	9012B	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	9012B	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	9012B	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	9012B	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	9012B	
MB 460-799758/2-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-799758/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-241995-E-1-D MS	Matrix Spike	Total/NA	Solid	9012B	
460-241995-E-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	
460-242064-A-1-M MS	Matrix Spike	Total/NA	Solid	9012B	
460-242064-A-1-N MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	

Prep Batch: 799891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	3060A	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	3060A	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	3060A	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	3060A	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	3060A	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	3060A	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	3060A	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	3060A	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	3060A	
MB 460-799891/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-799891/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-799891/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-799891/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-242062-E-4-Q MSS	Matrix Spike	Total/NA	Solid	3060A	
460-242062-E-4-R MSI	Matrix Spike	Total/NA	Solid	3060A	
460-242062-E-4-P DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 799905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	7196A	799891
460-241856-2	017_LB-35_5-7	Total/NA	Solid	7196A	799891
460-241856-3	018_LB-36_5-7	Total/NA	Solid	7196A	799891
460-241856-4	019_LB-36_15-16	Total/NA	Solid	7196A	799891
460-241856-5	020_LB-28_5-7	Total/NA	Solid	7196A	799891
460-241856-6	021_LB-37_15-16	Total/NA	Solid	7196A	799891
460-241856-9	032_LB-29_5-7	Total/NA	Solid	7196A	799891
460-241856-10	033_LB-29_15-16	Total/NA	Solid	7196A	799891

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

General Chemistry (Continued)

Analysis Batch: 799905 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-12	035_LB-30_16-17	Total/NA	Solid	7196A	799891
MB 460-799891/1-A	Method Blank	Total/NA	Solid	7196A	799891
LCSI 460-799891/3-A	Lab Control Sample	Total/NA	Solid	7196A	799891
LCSSRM 460-799891/2-A	Lab Control Sample	Total/NA	Solid	7196A	799891
LCSSRM 460-799891/4-A	Lab Control Sample	Total/NA	Solid	7196A	799891
460-242062-E-4-Q MSS	Matrix Spike	Total/NA	Solid	7196A	799891
460-242062-E-4-R MSI	Matrix Spike	Total/NA	Solid	7196A	799891
460-242062-E-4-P DU	Duplicate	Total/NA	Solid	7196A	799891

Analysis Batch: 799930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	9012B	799758
460-241856-2	017_LB-35_5-7	Total/NA	Solid	9012B	799758
460-241856-3	018_LB-36_5-7	Total/NA	Solid	9012B	799758
460-241856-4	019_LB-36_15-16	Total/NA	Solid	9012B	799758
460-241856-5	020_LB-28_5-7	Total/NA	Solid	9012B	799758
460-241856-6	021_LB-37_15-16	Total/NA	Solid	9012B	799758
460-241856-9	032_LB-29_5-7	Total/NA	Solid	9012B	799758
460-241856-10	033_LB-29_15-16	Total/NA	Solid	9012B	799758
460-241856-12	035_LB-30_16-17	Total/NA	Solid	9012B	799758
MB 460-799758/2-A	Method Blank	Total/NA	Solid	9012B	799758
LCSSRM 460-799758/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	799758
460-241995-E-1-D MS	Matrix Spike	Total/NA	Solid	9012B	799758
460-241995-E-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	799758
460-242064-A-1-M MS	Matrix Spike	Total/NA	Solid	9012B	799758
460-242064-A-1-N MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	799758

Analysis Batch: 799991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241856-1	016_LB-35_15-16	Total/NA	Solid	7196A	
460-241856-2	017_LB-35_5-7	Total/NA	Solid	7196A	
460-241856-3	018_LB-36_5-7	Total/NA	Solid	7196A	
460-241856-4	019_LB-36_15-16	Total/NA	Solid	7196A	
460-241856-5	020_LB-28_5-7	Total/NA	Solid	7196A	
460-241856-6	021_LB-37_15-16	Total/NA	Solid	7196A	
460-241856-9	032_LB-29_5-7	Total/NA	Solid	7196A	
460-241856-10	033_LB-29_15-16	Total/NA	Solid	7196A	
460-241856-12	035_LB-30_16-17	Total/NA	Solid	7196A	

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 016_LB-35_15-16

Lab Sample ID: 460-241856-1

Date Collected: 08/30/21 10:00

Matrix: Solid

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Client Sample ID: 016_LB-35_15-16

Lab Sample ID: 460-241856-1

Date Collected: 08/30/21 10:00

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 75.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:31
Total/NA	Analysis	8260D		1	799122	EMM	EET EDI	09/01/21 02:02
Total/NA	Prep	3546			799162	GXY	EET EDI	08/31/21 20:22
Total/NA	Analysis	8270E		1	799208	MDJ	EET EDI	09/01/21 11:32
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 04:44
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 09:09
Total/NA	Prep	8151A			799184	AFR	EET EDI	08/31/21 23:45
Total/NA	Analysis	8151A		1	799232	SAK	EET EDI	09/01/21 09:15
Total/NA	Prep	SHAKE			166935	PR5J	ELLE	09/01/21 10:53
Total/NA	Cleanup	Extract Aliquot			167072	PR5J	ELLE	09/01/21 15:33
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/05/21 14:29
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:09
Total/NA	Prep	7471B			799196	TJS	EET EDI	09/01/21 03:21
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 07:47
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:12

Client Sample ID: 017_LB-35_5-7

Lab Sample ID: 460-241856-2

Date Collected: 08/30/21 10:15

Matrix: Solid

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Client Sample ID: 017_LB-35_5-7

Lab Sample ID: 460-241856-2

Date Collected: 08/30/21 10:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 56.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:31
Total/NA	Analysis	8260D		1	799122	EMM	EET EDI	08/31/21 23:01

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 017_LB-35_5-7

Date Collected: 08/30/21 10:15

Date Received: 08/30/21 18:00

Lab Sample ID: 460-241856-2

Matrix: Solid

Percent Solids: 56.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799162	GXY	EET EDI	08/31/21 20:22
Total/NA	Analysis	8270E		1	799208	MDJ	EET EDI	09/01/21 11:49
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 05:00
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 09:26
Total/NA	Prep	8151A			799184	AFR	EET EDI	08/31/21 23:45
Total/NA	Analysis	8151A		1	799232	SAK	EET EDI	09/01/21 09:30
Total/NA	Prep	SHAKE			166935	PR5J	ELLE	09/01/21 10:53
Total/NA	Cleanup	Extract Aliquot			167072	PR5J	ELLE	09/01/21 15:33
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/05/21 14:40
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:11
Total/NA	Prep	7471B			799196	TJS	EET EDI	09/01/21 03:21
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 07:49
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:13

Client Sample ID: 018_LB-36_5-7

Date Collected: 08/30/21 10:45

Date Received: 08/30/21 18:00

Lab Sample ID: 460-241856-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Client Sample ID: 018_LB-36_5-7

Date Collected: 08/30/21 10:45

Date Received: 08/30/21 18:00

Lab Sample ID: 460-241856-3

Matrix: Solid

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:33
Total/NA	Analysis	8260D		1	799252	EMM	EET EDI	09/01/21 13:41
Total/NA	Prep	3546			799162	GXY	EET EDI	08/31/21 20:22
Total/NA	Analysis	8270E		1	799208	MDJ	EET EDI	09/01/21 12:07
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 05:15
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 09:43
Total/NA	Prep	8151A			799184	AFR	EET EDI	08/31/21 23:45
Total/NA	Analysis	8151A		1	799232	SAK	EET EDI	09/01/21 09:45

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 018_LB-36_5-7

Lab Sample ID: 460-241856-3

Date Collected: 08/30/21 10:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			166935	PR5J	ELLE	09/01/21 10:53
Total/NA	Cleanup	Extract Aliquot			167072	PR5J	ELLE	09/01/21 15:33
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/05/21 14:51
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:18
Total/NA	Prep	7471B			799196	TJS	EET EDI	09/01/21 03:21
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 07:50
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:18

Client Sample ID: 019_LB-36_15-16

Lab Sample ID: 460-241856-4

Date Collected: 08/30/21 10:55

Matrix: Solid

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Client Sample ID: 019_LB-36_15-16

Lab Sample ID: 460-241856-4

Date Collected: 08/30/21 10:55

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:33
Total/NA	Analysis	8260D		1	799122	EMM	EET EDI	08/31/21 23:41
Total/NA	Prep	3546			799162	GXY	EET EDI	08/31/21 20:22
Total/NA	Analysis	8270E		1	799208	MDJ	EET EDI	09/01/21 12:24
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 05:31
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 10:00
Total/NA	Prep	8151A			799184	AFR	EET EDI	08/31/21 23:45
Total/NA	Analysis	8151A		1	799232	SAK	EET EDI	09/01/21 09:59
Total/NA	Prep	SHAKE			166935	PR5J	ELLE	09/01/21 10:53
Total/NA	Cleanup	Extract Aliquot			167072	PR5J	ELLE	09/01/21 15:33
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/05/21 15:02
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:20
Total/NA	Prep	7471B			799196	TJS	EET EDI	09/01/21 03:21
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 07:52
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 019_LB-36_15-16

Lab Sample ID: 460-241856-4

Date Collected: 08/30/21 10:55

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:18

Client Sample ID: 020_LB-28_5-7

Lab Sample ID: 460-241856-5

Date Collected: 08/30/21 11:05

Matrix: Solid

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Client Sample ID: 020_LB-28_5-7

Lab Sample ID: 460-241856-5

Date Collected: 08/30/21 11:05

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:34
Total/NA	Analysis	8260D		1	799122	EMM	EET EDI	09/01/21 00:01
Total/NA	Prep	3546			799162	GXY	EET EDI	08/31/21 20:22
Total/NA	Analysis	8270E		1	799208	MDJ	EET EDI	09/01/21 12:41
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 05:47
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 10:17
Total/NA	Prep	8151A			799184	AFR	EET EDI	08/31/21 23:45
Total/NA	Analysis	8151A		1	799232	SAK	EET EDI	09/01/21 10:14
Total/NA	Prep	SHAKE			169575	S7AC	ELLE	09/09/21 12:10
Total/NA	Cleanup	Extract Aliquot			169576	S7AC	ELLE	09/09/21 12:13
Total/NA	Analysis	537 IDA		1	170039	PY4D	ELLE	09/10/21 14:15
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:23
Total/NA	Prep	7471B			799196	TJS	EET EDI	09/01/21 03:21
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 07:54
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:19

Client Sample ID: 021_LB-37_15-16

Lab Sample ID: 460-241856-6

Date Collected: 08/30/21 11:15

Matrix: Solid

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 021_LB-37_15-16

Lab Sample ID: 460-241856-6

Date Collected: 08/30/21 11:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:35
Total/NA	Analysis	8260D		1	799252	EMM	EET EDI	09/01/21 13:21
Total/NA	Prep	3546			799162	GXY	EET EDI	08/31/21 20:22
Total/NA	Analysis	8270E		1	799208	MDJ	EET EDI	09/01/21 12:58
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 06:03
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 10:34
Total/NA	Prep	8151A			799184	AFR	EET EDI	08/31/21 23:45
Total/NA	Analysis	8151A		1	799232	SAK	EET EDI	09/01/21 10:29
Total/NA	Prep	SHAKE			166935	PR5J	ELLE	09/01/21 10:53
Total/NA	Cleanup	Extract Aliquot			167072	PR5J	ELLE	09/01/21 15:33
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/05/21 15:24
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:25
Total/NA	Prep	7471B			799196	TJS	EET EDI	09/01/21 03:21
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 07:56
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:20

Client Sample ID: 032_LB-29_5-7

Lab Sample ID: 460-241856-9

Date Collected: 08/30/21 14:15

Matrix: Solid

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Client Sample ID: 032_LB-29_5-7

Lab Sample ID: 460-241856-9

Date Collected: 08/30/21 14:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:36
Total/NA	Analysis	8260D		1	799252	EMM	EET EDI	09/01/21 13:01
Total/NA	Prep	3546			799162	GXY	EET EDI	08/31/21 20:22
Total/NA	Analysis	8270E		1	799208	MDJ	EET EDI	09/01/21 13:15
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 07:17
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 10:51
Total/NA	Prep	8151A			799184	AFR	EET EDI	08/31/21 23:45
Total/NA	Analysis	8151A		1	799232	SAK	EET EDI	09/01/21 10:43

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 032_LB-29_5-7

Lab Sample ID: 460-241856-9

Date Collected: 08/30/21 14:15

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			166935	PR5J	ELLE	09/01/21 10:53
Total/NA	Cleanup	Extract Aliquot			167072	PR5J	ELLE	09/01/21 15:33
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/05/21 15:35
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:27
Total/NA	Prep	7471B			799196	TJS	EET EDI	09/01/21 03:21
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 07:57
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:25

Client Sample ID: 033_LB-29_15-16

Lab Sample ID: 460-241856-10

Date Collected: 08/30/21 14:25

Matrix: Solid

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Client Sample ID: 033_LB-29_15-16

Lab Sample ID: 460-241856-10

Date Collected: 08/30/21 14:25

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:37
Total/NA	Analysis	8260D		1	799252	EMM	EET EDI	09/01/21 12:41
Total/NA	Prep	3546			799162	GXY	EET EDI	08/31/21 20:22
Total/NA	Analysis	8270E		1	799208	MDJ	EET EDI	09/01/21 13:32
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 07:33
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 11:08
Total/NA	Prep	8151A			799184	AFR	EET EDI	08/31/21 23:45
Total/NA	Analysis	8151A		1	799232	SAK	EET EDI	09/01/21 11:56
Total/NA	Prep	SHAKE			169575	S7AC	ELLE	09/09/21 12:10
Total/NA	Cleanup	Extract Aliquot			169576	S7AC	ELLE	09/09/21 12:13
Total/NA	Analysis	537 IDA		1	170039	PY4D	ELLE	09/10/21 14:26
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:29
Total/NA	Prep	7471B			799199	TJS	EET EDI	09/01/21 03:37
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 08:13
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Client Sample ID: 033_LB-29_15-16

Lab Sample ID: 460-241856-10

Date Collected: 08/30/21 14:25

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:30

Client Sample ID: 035_LB-30_16-17

Lab Sample ID: 460-241856-12

Date Collected: 08/30/21 14:45

Matrix: Solid

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	799075	NZP	EET EDI	08/31/21 11:54

Client Sample ID: 035_LB-30_16-17

Lab Sample ID: 460-241856-12

Date Collected: 08/30/21 14:45

Matrix: Solid

Date Received: 08/30/21 18:00

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799093	YXG	EET EDI	08/31/21 12:39
Total/NA	Analysis	8260D		1	799122	EMM	EET EDI	09/01/21 01:41
Total/NA	Prep	3546			799163	GXY	EET EDI	08/31/21 20:30
Total/NA	Analysis	8270E		1	799215	MDJ	EET EDI	09/01/21 11:56
Total/NA	Prep	3546			799143	ARA	EET EDI	08/31/21 17:18
Total/NA	Analysis	8081B		1	799189	FAM	EET EDI	09/01/21 08:05
Total/NA	Prep	3546			799141	ARA	EET EDI	08/31/21 17:12
Total/NA	Analysis	8082A		1	799202	FAM	EET EDI	09/01/21 11:42
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 17:09
Total/NA	Prep	SHAKE			166935	PR5J	ELLE	09/01/21 10:53
Total/NA	Cleanup	Extract Aliquot			167072	PR5J	ELLE	09/01/21 15:33
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/05/21 15:57
Total/NA	Prep	3050B			799229	SXC	EET EDI	09/01/21 06:34
Total/NA	Analysis	6020B		1	799309	YZH	EET EDI	09/01/21 17:31
Total/NA	Prep	7471B			799199	TJS	EET EDI	09/01/21 03:37
Total/NA	Analysis	7471B		1	799282	TJS	EET EDI	09/01/21 08:14
Total/NA	Prep	3060A			799891	OXG	EET EDI	09/05/21 09:28 - 09/05/21 11:55 ¹
Total/NA	Analysis	7196A		1	799905	OXG	EET EDI	09/05/21 15:30
Total/NA	Prep	9012B			799758	VBG	EET EDI	09/03/21 21:48
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 13:31

Client Sample ID: 036_TB-1B

Lab Sample ID: 460-241856-13

Date Collected: 08/30/21 00:00

Matrix: Water

Date Received: 08/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	799422	KLB	EET EDI	09/02/21 12:26

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	12-09-21
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	10-12-21
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-00660	08-08-22
California	State	2792	01-31-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-10-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	10-12-21
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	10-19-21
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-21
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-16-22
Massachusetts	State	M-PA009	10-17-21
Michigan	State	9930	09-29-21
Minnesota	NELAP	042-999-487	11-04-21
Missouri	State	450	11-09-21
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	09-19-21
New York	NELAP	10670	10-11-21
North Carolina (DW)	State	42705	06-30-22
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-21
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	09-13-21
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-30-22
Texas	NELAP	T104704194-22-43	10-14-21
USDA	US Federal Programs	P330-19-00197	07-03-22
Vermont	State	VT - 36037	10-27-21
Virginia	NELAP	460182	10-25-21
Washington	State	C457	04-11-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	09-30-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET EDI
8081B	Organochlorine Pesticides (GC)	SW846	EET EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET EDI
8151A	Herbicides (GC)	SW846	EET EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	EET EDI
7471B	Mercury (CVAA)	SW846	EET EDI
7196A	Chromium, Hexavalent	SW846	EET EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	EET EDI
9012B	Cyanide, Total and/or Amenable	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET EDI
3050B	Preparation, Metals	SW846	EET EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET EDI
3546	Microwave Extraction	SW846	EET EDI
5030C	Purge and Trap	SW846	EET EDI
5035	Closed System Purge and Trap	SW846	EET EDI
7471B	Preparation, Mercury	SW846	EET EDI
8151A	Extraction (Herbicides)	SW846	EET EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue, Bronx, NY

Job ID: 460-241856-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-241856-1	016_LB-35_15-16	Solid	08/30/21 10:00	08/30/21 18:00
460-241856-2	017_LB-35_5-7	Solid	08/30/21 10:15	08/30/21 18:00
460-241856-3	018_LB-36_5-7	Solid	08/30/21 10:45	08/30/21 18:00
460-241856-4	019_LB-36_15-16	Solid	08/30/21 10:55	08/30/21 18:00
460-241856-5	020_LB-28_5-7	Solid	08/30/21 11:05	08/30/21 18:00
460-241856-6	021_LB-37_15-16	Solid	08/30/21 11:15	08/30/21 18:00
460-241856-9	032_LB-29_5-7	Solid	08/30/21 14:15	08/30/21 18:00
460-241856-10	033_LB-29_15-16	Solid	08/30/21 14:25	08/30/21 18:00
460-241856-12	035_LB-30_16-17	Solid	08/30/21 14:45	08/30/21 18:00
460-241856-13	036_TB-1B	Water	08/30/21 00:00	08/30/21 18:00

TAL-8210

9/20/2022

1AL-821E

9/20/2022

Address: 2455 Third Ave

Regulatory Program: ☐ DW ☒ NPDES

Chain of Custody Record

UN
Pa
DO
UN
DO
DO

Environment Testing
TestAmerica

Regulatory Program: ☐ DW ☐ RCRA ☐ Other ☐ NYSDEC		COC No. <u>2</u> of <u>1</u> COCs	
Client Contact Company Name Address City/State/Zip Phone Fax Project Name Site P.O.#		Project Manager: <u>A. Forsburg</u> Telephone: <u>973-560-4574</u> Site Contact: <u>SAVE</u> Carrier: <u>SAVE</u> Date: <u>11/18/15</u>	
Analysis Turnaround Time Calendar Days Working Days TAT if different from above Standard 1 day 1 week 2 days 2 weeks		Subpart 375-6 VOCs	
Sample Identification Sample Date Sample Time Sample Type (IC-Comp G-dry) Matrix # of Cont.		Filtered Sample (Y/N) Perform MS/MSD (Y/N)	
036_TB-1B (MVA)		X VOCs	
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.		Return to Client ☐ Disposed by Lab ☐ Archive for ☐ Months	
Special Instructions/QC Requirements & Comments:			
Custody Seals Intact ☐ Yes ☐ No	Custody Seal No.	Cooler Temp (C) Obsd	Cord
Relinquished by <u>Morgan M. Burch</u>	Company <u>Save</u>	Received by <u>SA</u>	Company <u>ETM</u>
Relinquished by <u>COG</u>	Company	Received by	Company
Relinquished by	Company	Received in Laboratory by	Company
Date/Time	Date/Time	Date/Time	Date/Time

Address: 2455 Third Ave

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: NYSDEC

TAL-8210

Client Contact		Project Manager: Amanda Forsberg		Site Contact: Morgan McBride		Date: 8/30/21		COC No: 1	
Company Name: Langan		Tel/Email: 973 566 4574		Lab Contact: P. Grieco		Carrier:		1 of 2 COCs	
Address: 300 Kimball Dr		City/State/Zip: Parsippany, NJ		Analysis Turnaround Time		Sampler:		For Lab Use Only:	
Phone: 973-560-4574		Fax:		☐ CALENDAR DAYS ☐ WORKING DAYS		Walk-in Client:		Lab Sampling:	
Project Name: 2455 Third Ave		Site: 1900 S 17th		TAT if different from Below		Job / SDG No: 24/856			
P O #		Sample Identification		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.	
016 / LB-35-15-16	8/30/21	G	S	8					
017 / LB-35-S-7		G	S						
018 / LB-36-S-7	1045	G	S						
019 / LB-36-15-16	1055	G	S						
020 / LB-37-S-7	1105	G	S						
021 / LB-37-15-16	1115	G	S						
030 / LB-28-S-7	1400								
031 / LB-28-15-16	1410								
032 / LB-29-S-7	1415								
033 / LB-29-15-16	1425								
034 / LB-30-S-7	1440								
035 / LB-30-16-17	1445								

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

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample.
Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☒ Unknown

Special Instructions/QC Requirements & Comments:

Custody Seal No.: ☐ Yes ☐ No

Relinquished by: Morgan McBride

Relinquished by: [Signature]

Relinquished by: [Signature]

2-0/15 TR9

Sample Specific Notes:
(N/A) -1
-2
-3
-4
-5
-6
-7
-8
-9
-10
-11
-12

Perform MS / MSD (Y / N)

Filtered Sample (Y / N)

Short Hold

ELMSFORD

272

460-241856 Chain of Custody

Company: ETA

Date/Time: 8-30-21 15:50

Company: JTA

Date/Time: 8-30-21 16:00

Company: JTA

Date/Time: 8-30-21 18:00

Address:

50

[illegible]

20/25/209

258/72

IR Gun #

2

Cooler Temperatures

	NAME		COMBUSTION TEST		RAN		COMBUSTION TEST	
	NAME	COMBUSTION TEST	NAME	COMBUSTION TEST	NAME	COMBUSTION TEST	NAME	COMBUSTION TEST
Cooler #1	20	C	Cooler #4	C	C	Cooler #7	C	C
Cooler #2	C	C	Cooler #5	C	C	Cooler #8	C	C
Cooler #3	C	C	Cooler #6	C	C	Cooler #9	C	C

[illegible]

If pH adjustments are required record the information below:

Volume of Preservative used (ml):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials:

front

Date: 8/

[illegible]

Environment Testing
America

9/20/2022



Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-241856-1

Login Number: 241856

List Number: 1

Creator: Lysy, Susan

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-241856-1

Login Number: 241856

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 2

List Creation: 08/31/21 10:45 PM

Creator: Phillips, Ann-Marie E

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

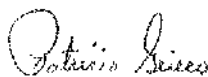
Laboratory Job ID: 460-241982-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

9/20/2022 12:42:52 PM

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

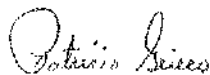
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
9/20/2022 12:42:52 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	14
Client Sample Results	28
Surrogate Summary	142
Isotope Dilution Summary	149
QC Sample Results	153
QC Association Summary	226
Lab Chronicle	251
Certification Summary	274
Method Summary	276
Sample Summary	277
Chain of Custody	278
Receipt Checklists	292



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	ISTD response or retention time outside acceptable limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	Surrogate is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
J	Indicates an estimated value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
*	Duplicate analysis not within control limits.
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)

Eurofins Edison

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Job ID: 460-241982-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-241982-1

Revision #1: Revise All IDs - COC Provided

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 09/01/2021; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 3.7° C, 3.9° C, 4.0° C, 4.2° C, 4.5° C and 5.9° C.

Receipt Exceptions

The following sample(s) was received outside of holding time: 30,31,32 for Cr+6

The following sample(s) was listed on the Chain of Custody (COC); however, no sample(s) was received: 1-11 (INCLUDING MS/MSD) No Terracore kits were included.

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Sample Id: 29-31 have 17 containers. Sample Id: 32 has 18 containers.

SAMPLE ID: 21 - terracores in same bag as 60ml, 60ml label matched the COC but terracore was labled diffrently. All other terracores accounted for.

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. ID: 11 no time was on COC, used the time on sample containers.

Sample ID: 16 and 18 COC do no match containers.

The client submitted a revised COC for Sample IDs on 9/2/2021.

The client supplied a revised sample acknowledgement form for sample ID changes.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Job ID: 460-241982-1 (Continued)

Laboratory: Eurofins Edison (Continued)

meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

N-Propylbenzene failed the recovery criteria high for LCS 460-799504/4. N-Propylbenzene failed the recovery criteria high for LCSD 460-799504/5. Refer to the QC report for details.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 09/02/2021 and analyzed on 09/02/2021 and 09/03/2021.

The continuing calibration verification (CCV) associated with batch 460-799733 recovered above the upper control limit for n-Butylbenzene, N-Propylbenzene and 1,1-Dichloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Internal standard (ISTD) response for 1,4-Dioxane-d8 for the following sample was outside acceptance criteria: 058/LB-45-11-13 (460-241982-21). This ISTD does not correspond to any of the detected target compounds; therefore, the data have been reported.

The continuing calibration verification (CCV) analyzed in batch 460-799782 was outside the method criteria for the following analyte(s): Carbon tetrachloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 066/TB-2B (460-241982-29), 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 09/04/2021.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 09/02/2021 and analyzed on 09/02/2021 and 09/03/2021.

The continuing calibration verification (CCV) analyzed in batch 460-799528 was outside the method criteria for the following analyte(s): < Pentachlorophenol>. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Job ID: 460-241982-1 (Continued)

Laboratory: Eurofins Edison (Continued)

The continuing calibration verification (CCV) analyzed in batch 460-799531 was outside the method criteria for the following analyte(s): Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Chrysene failed the recovery criteria low for LCS 460-799464/2-A. Chrysene failed the recovery criteria low for LCSD 460-799464/3-A. Refer to the QC report for details.

Several analytes failed the recovery criteria low for the MS of sample 042/LB-47-15-16MS (460-241982-5) in batch 460-799531.

Several analytes failed the recovery criteria low for the MSD of sample 042/LB-47-15-16MSD (460-241982-5) in batch 460-799531.

Several analytes failed the recovery criteria low for the MS of sample 046/LB-27-15-16MS (460-241982-9) in batch 460-799528.

Several analytes failed the recovery criteria low for the MSD of sample 046/LB-27-15-16MSD (460-241982-9) in batch 460-799528.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 09/02/2021 and analyzed on 09/03/2021.

Pyrene failed the recovery criteria high for the MS of sample 460-242026-2 in batch 460-799369.

Naphthalene and Pyrene failed the recovery criteria high for the MSD of sample 460-242026-2 in batch 460-799369.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - ISOTOPE DILUTION - 1,4 DIOXANE

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) - Isotope Dilution - 1,4 Dioxane in accordance with EPA SW-846 Method 8270E SIM 1,4Dioxane. The samples were prepared on 09/01/2021 and analyzed on 09/02/2021.

No difficulties were encountered during the 1,4 Dioxane analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26),

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Job ID: 460-241982-1 (Continued)

Laboratory: Eurofins Edison (Continued)

064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 09/02/2021 and analyzed on 09/03/2021.

Several analytes failed the recovery criteria low for the MS of sample 046/LB-27-15-16MS (460-241982-9) in batch 460-799577.

Refer to the QC report for details.

Sample 038/LB-49-8-10 (460-241982-1)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared and analyzed on 09/02/2021.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 09/02/2021 and analyzed on 09/03/2021.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared and analyzed on 09/02/2021.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 09/03/2021 and analyzed on 09/03/2021 and 09/07/2021.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Job ID: 460-241982-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Silvex (2,4,5-TP) exceeded the RPD limit for the MSD of sample 046/LB-27-15-16MSD (460-241982-9) in batch 460-800026.

Refer to the QC report for details.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared and analyzed on 09/03/2021.

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 061/LB-44-15-16 (460-241982-24), 063/LB-43-15-16 (460-241982-26) and 065/LB-42-15-16 (460-241982-28) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 09/03/2021 and analyzed on 09/05/2021, 09/06/2021 and 09/15/2021.

The recovery for the labeled isotope(s) in the following samples: 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

The labeled isotope recovery is outside of the QC acceptance limits in the method blank and laboratory control spikes associated with the following sample: 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32). Since the recoveries are biased high, no associated target analytes are detected in the method blank, and all associated target analytes are within the QC limits in the Laboratory Control Spike(s), the data is reported.

Sample 055/LB-34-5-7 (460-241982-18)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared and analyzed on 09/08/2021 and 09/09/2021.

Several analytes failed the recovery criteria high for the MS of sample 042/LB-47-15-16MS (460-241982-5) in batch 460-800227.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Job ID: 460-241982-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Barium failed the recovery criteria low for the MS of sample 046/LB-27-15-16MS (460-241982-9) in batch 460-800413.

Refer to the QC report for details.

Lead, Manganese and Nickel exceeded the RPD limit for the duplicate of sample 042/LB-47-15-16DU (460-241982-5). for the duplicate of sample 046/LB-27-15-16DU (460-241982-9). Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 09/04/2021 and analyzed on 09/07/2021.

No difficulties were encountered during the Total Metals (ICP/MS) analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared on 09/07/2021, 09/10/2021, 09/16/2021 and 09/25/2021 and analyzed on 09/08/2021, 09/10/2021, 09/17/2021 and 09/26/2021.

The matrix spike soluble/matrix spike insoluble (MSS/MSI) recoveries for batch preparation batch 460-800681 and analytical batch 460-801017, which is a re-prep of batch 460-800681, were outside control limits due to sample matrix. The associated laboratory control sample (LCSI) recoveries met acceptance criteria but the LCSSRM is outside criteria. Both sets of data have been reported.

In analytical batch 460-801017, the LCSSRM recovery for batch preparation batch 460-800681 and analytical batch 460-801017, was outside control limits. The associated laboratory control sample (LCSI) recoveries met acceptance criteria. Samples are being reprepared and both sets of data will be reported.

The matrix spike soluble/matrix spike insoluble (MSS/MSI) and post spike recoveries for batch 801883, , were outside control limits due to sample matrix. The associated laboratory control sample (LCSS/LCSI) recoveries met acceptance criteria.

Cr (VI) and Cr (VI) failed the recovery criteria low for the MS of sample 460-241499-14 in batch 460-801883.

Refer to the QC report for details.

No other difficulties were encountered during the hexchrome Cr6 analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 09/04/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Job ID: 460-241982-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 09/07/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 09/03/2021 and 09/07/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 09/07/2021, 09/08/2021, 09/13/2021 and 09/19/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 09/08/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19),

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Job ID: 460-241982-1 (Continued)

Laboratory: Eurofins Edison (Continued)

057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 09/05/2021 and analyzed on 09/06/2021.

Cyanide, Total failed the recovery criteria high for the MSD of sample 042/LB-47-15-16MSD (460-241982-5) in batch 460-799943.

Cyanide, Total failed the recovery criteria high for the MSD of sample 046/LB-27-15-16MSD (460-241982-9) in batch 460-799943.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 09/03/2021 and analyzed on 09/05/2021.

Cyanide, Total failed the recovery criteria high for the MS of sample 460-242075-1 in batch 460-799930.

Cyanide, Total failed the recovery criteria high for the MS of sample 460-242075-1 in batch 460-799930.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 038/LB-49-8-10 (460-241982-1), 039/LB-49-15-16 (460-241982-2), 040/LB-48-5-7 (460-241982-3), 041/LB-48-15-16 (460-241982-4), 042/LB-47-15-16 (460-241982-5), 043/HS-2-8-10 (460-241982-6), 044/HS-2-10-12 (460-241982-7), 045/LB-27-6-8 (460-241982-8), 046/LB-27-15-16 (460-241982-9), 047/HS-1-8-10 (460-241982-10), 048/HS-1-10-12 (460-241982-11), 049/LB-31-5-7 (460-241982-12), 050/LB-31-15-16 (460-241982-13), 051/LB-32-5-7 (460-241982-14), 052/LB-32-15-16 (460-241982-15), 053/LB-33-5-7 (460-241982-16), 054/LB-33-15-16 (460-241982-17), 055/LB-34-5-7 (460-241982-18), 056/LB-34-15-16 (460-241982-19), 057/LB-46-15-16 (460-241982-20), 058/LB-45-11-13 (460-241982-21), 059/LB-45-15-16 (460-241982-22), 060/LB-44-8-10 (460-241982-23), 061/LB-44-15-16 (460-241982-24), 062/LB-43-9-11 (460-241982-25), 063/LB-43-15-16 (460-241982-26), 064/LB-42-5-7 (460-241982-27) and 065/LB-42-15-16 (460-241982-28) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 09/03/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 067/FB-2 (460-241982-30), 068/FB-3 (460-241982-31) and 069/FB-4 (460-241982-32) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA. The samples were prepared on 09/03/2021 and analyzed on 09/06/2021.

No difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 038_LB-49-8-10

Lab Sample ID: 460-241982-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
3 & 4 Methylphenol	37	J	380	24	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	530		380	6.6	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	550		380	3.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	50	J	380	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	160	J	380	5.3	ug/Kg	1	✱	8270E	Total/NA
Fluorene	75	J	380	5.1	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	1100		380	6.7	ug/Kg	1	✱	8270E	Total/NA
Anthracene	870		380	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	3100		380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	2800		380	9.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	1600		38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	1500	*	380	6.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	2500		38	9.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	830		38	7.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	1700		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	940		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	220		38	16	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	1100		380	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	14	J	38	6.5	ug/Kg	5	✱	8081B	Total/NA
4,4'-DDE	85		38	4.5	ug/Kg	5	✱	8081B	Total/NA
4,4'-DDT	420		38	7.1	ug/Kg	5	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	2.80		0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.23	J	1.1	0.096	mg/Kg	1	✱	6020B	Total/NA
Arsenic	21.8		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	306		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.29	J	0.43	0.062	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.91	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	25.9		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	231		2.2	0.24	mg/Kg	1	✱	6020B	Total/NA
Manganese	660		4.3	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	40.2		2.2	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	1150		0.65	0.22	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.67	J	1.4	0.13	mg/Kg	1	✱	6020B	Total/NA
Zinc	378		8.7	2.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.39		0.020	0.0046	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	25.9		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cyanide, Total	0.24	J	0.25	0.14	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 039_LB-49-15-16

Lab Sample ID: 460-241982-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	22	J	390	6.7	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	33	J	390	3.9	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	19	J	390	5.4	ug/Kg	1	✱	8270E	Total/NA
Fluorene	14	J	390	5.2	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	320	J	390	6.8	ug/Kg	1	✱	8270E	Total/NA
Anthracene	46	J	390	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	480		390	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	410		390	9.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	230		39	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	220	J *	390	6.5	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 039_LB-49-15-16 (Continued)

Lab Sample ID: 460-241982-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	330		39	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	120		39	7.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	260		39	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	200		39	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	47		39	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	170	J	390	11	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	0.28	J	0.69	0.23	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.7		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	50.3		2.1	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.28	J	0.43	0.061	mg/Kg	1	✱	6020B	Total/NA
Chromium	13.0		2.1	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	20.3		2.1	0.24	mg/Kg	1	✱	6020B	Total/NA
Manganese	151		4.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	13.2		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	121		0.64	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	51.1		8.6	2.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.043		0.018	0.0041	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	13.0		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 040_LB-48-5-7

Lab Sample ID: 460-241982-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	10	J	390	9.6	ug/Kg	1	✱	8270E	Total/NA
Chrysene	6.9	J *	390	6.5	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	0.42	J	0.67	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	2.1		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	17.0		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.25	J	0.44	0.063	mg/Kg	1	✱	6020B	Total/NA
Chromium	9.0		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	8.8		2.2	0.24	mg/Kg	1	✱	6020B	Total/NA
Manganese	111		4.4	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	9.4		2.2	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	10.0		0.66	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	25.2		8.8	2.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.057		0.018	0.0043	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	9.0		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 041_LB-48-15-16

Lab Sample ID: 460-241982-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.88	J	1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	19.4		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.17	J	0.43	0.062	mg/Kg	1	✱	6020B	Total/NA
Chromium	7.7		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	7.9		2.2	0.24	mg/Kg	1	✱	6020B	Total/NA
Manganese	83.7		4.3	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	7.0		2.2	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	38.0		0.65	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	32.6		8.7	2.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.0045	J	0.019	0.0044	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	7.7		2.0	2.0	mg/Kg	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 042_LB-47-15-16

Lab Sample ID: 460-241982-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	22	J	390	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	27	J	390	9.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	24	J	39	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	18	J *	390	6.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	27	J	39	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	13	J	39	7.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	27	J	39	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	19	J	39	15	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	18	J	390	11	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	0.30	J	0.65	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	0.80	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	11.6		2.4	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.16	J	0.47	0.067	mg/Kg	1	✱	6020B	Total/NA
Chromium	8.4		2.4	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	6.2		2.4	0.26	mg/Kg	1	✱	6020B	Total/NA
Manganese	95.7		4.7	0.47	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.7		2.4	0.23	mg/Kg	1	✱	6020B	Total/NA
Lead	2.7		0.71	0.24	mg/Kg	1	✱	6020B	Total/NA
Zinc	12.0		9.4	2.7	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	8.4		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 043_HS-2-8-10

Lab Sample ID: 460-241982-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid	0.35	J	0.67	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.5		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	14.8		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.31	J	0.46	0.066	mg/Kg	1	✱	6020B	Total/NA
Chromium	9.6		2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	7.5		2.3	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	167		4.6	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.2		2.3	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	4.7		0.69	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	21.0		9.2	2.6	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	9.6		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 044_HS-2-10-12

Lab Sample ID: 460-241982-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid	0.23	J	0.68	0.23	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.0	J	1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	7.6		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.22	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Chromium	7.7		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	4.8		2.2	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	106		4.5	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.3		2.2	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	2.9		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	11.7		9.0	2.6	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	7.7		2.0	2.0	mg/Kg	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 045_LB-27-6-8

Lab Sample ID: 460-241982-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	16	J	380	6.7	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	17	J	380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	16	J	380	9.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	14	J	38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	8.4	J *	380	6.4	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanoic acid	0.50	J	0.65	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.90		0.65	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.7		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	43.9		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.44		0.42	0.060	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.22	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	9.5		2.1	0.18	mg/Kg	1	✱	6020B	Total/NA
Copper	8.8		2.1	0.23	mg/Kg	1	✱	6020B	Total/NA
Manganese	354		4.2	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	12.4		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	22.3		0.63	0.21	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.24	J	1.3	0.12	mg/Kg	1	✱	6020B	Total/NA
Zinc	525		8.5	2.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.058		0.019	0.0045	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	9.5		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 046_LB-27-15-16

Lab Sample ID: 460-241982-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid	0.23	J	0.69	0.23	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.1		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	16.4		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.23	J	0.46	0.065	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.6		2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	6.6		2.3	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	76.0		4.6	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.8		2.3	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	3.5		0.69	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	16.2		9.1	2.6	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	11.6		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 047_HS-1-8-10

Lab Sample ID: 460-241982-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	150	J	390	6.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	9.5	J	390	3.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	39	J	390	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	26	J	390	5.5	ug/Kg	1	✱	8270E	Total/NA
Fluorene	31	J	390	5.3	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	380	J	390	6.9	ug/Kg	1	✱	8270E	Total/NA
Anthracene	58	J	390	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	440		390	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	490		390	9.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	200		39	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	220	J	390	6.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	280		39	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	88		39	7.7	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 047_HS-1-8-10 (Continued)

Lab Sample ID: 460-241982-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	210		39	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	120		39	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	30	J	39	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	110	J	390	12	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	0.25	J	0.67	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.20	J	1.1	0.098	mg/Kg	1	✱	6020B	Total/NA
Arsenic	2.1		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	37.9		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.38	J	0.44	0.063	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.0		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	9.2		2.2	0.24	mg/Kg	1	✱	6020B	Total/NA
Manganese	165		4.4	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	11.0		2.2	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	23.1		0.66	0.22	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.26	J	1.4	0.13	mg/Kg	1	✱	6020B	Total/NA
Zinc	33.4		8.8	2.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.13		0.018	0.0042	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	12.0		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 048_HS-1-10-12

Lab Sample ID: 460-241982-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	10	J	400	6.9	ug/Kg	1	✱	8270E	Total/NA
Arsenic	2.0		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	17.9		2.3	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.25	J	0.45	0.065	mg/Kg	1	✱	6020B	Total/NA
Chromium	8.1		2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	4.9		2.3	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	68.5		4.5	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	7.3		2.3	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	3.4		0.68	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	16.2		9.1	2.6	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	8.1		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 049_LB-31-5-7

Lab Sample ID: 460-241982-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	20	J	350	6.2	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	31	J	350	12	ug/Kg	1	✱	8270E	Total/NA
Pyrene	37	J	350	8.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	25	J	35	12	ug/Kg	1	✱	8270E	Total/NA
Chrysene	19	J	350	6.0	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	27	J	35	9.2	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	7.6	J	35	6.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	20	J	35	9.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	13	J	350	10	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDT	2.7	J	7.2	1.3	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanoic acid	0.38	J	0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.90		0.64	0.21	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.7		0.99	0.099	mg/Kg	1	✱	6020B	Total/NA
Barium	31.0		2.0	0.14	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.36	J	0.40	0.056	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 049_LB-31-5-7 (Continued)

Lab Sample ID: 460-241982-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	12.6		2.0	0.17	mg/Kg	1	✱	6020B	Total/NA
Copper	11.9		2.0	0.22	mg/Kg	1	✱	6020B	Total/NA
Manganese	295		4.0	0.40	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.4		2.0	0.19	mg/Kg	1	✱	6020B	Total/NA
Lead	13.2		0.59	0.20	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.12	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Zinc	42.9		7.9	2.3	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.0069	J	0.017	0.0041	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	12.6		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 050_LB-31-15-16

Lab Sample ID: 460-241982-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.1	J	4.9	0.36	ug/Kg	1	✱	8260D	Total/NA
Acetone	34		5.9	5.6	ug/Kg	1	✱	8260D	Total/NA
Naphthalene	14	J	380	6.6	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	16	J	380	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	12	J	380	5.4	ug/Kg	1	✱	8270E	Total/NA
Fluorene	16	J	380	5.2	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	230	J	380	6.7	ug/Kg	1	✱	8270E	Total/NA
Anthracene	45	J	380	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	250	J	380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	290	J	380	9.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	140		38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	130	J	380	6.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	150		38	9.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	57		38	7.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	120		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	67		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	20	J	38	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	65	J	380	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDE	3.3	J	7.8	0.91	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	4.0	J	7.8	1.4	ug/Kg	1	✱	8081B	Total/NA
Arsenic	1.6		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	21.4		2.1	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.31	J	0.43	0.061	mg/Kg	1	✱	6020B	Total/NA
Chromium	9.8		2.1	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	10.7		2.1	0.24	mg/Kg	1	✱	6020B	Total/NA
Manganese	198		4.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	9.9		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	19.3		0.64	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	57.4		8.6	2.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.0063	J	0.019	0.0046	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	9.8		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 051_LB-32-5-7

Lab Sample ID: 460-241982-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	9.7	J	360	6.2	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	11	J	360	10	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	7.9	J	360	5.0	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	170	J	360	6.3	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 051_LB-32-5-7 (Continued)

Lab Sample ID: 460-241982-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	18	J	360	11	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	190	J	360	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	200	J	360	8.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	81		36	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	88	J	360	6.1	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	120		36	9.3	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	47		36	7.0	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	98		36	9.6	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	58		36	14	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	55	J	360	11	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	0.33	J	0.61	0.20	ug/Kg	1	✱	537 IDA	Total/NA
Silver	0.25	J	1.0	0.093	mg/Kg	1	✱	6020B	Total/NA
Arsenic	3.8		1.0	0.10	mg/Kg	1	✱	6020B	Total/NA
Barium	89.9		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.36	J	0.42	0.059	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.19	J	1.0	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.9		2.1	0.18	mg/Kg	1	✱	6020B	Total/NA
Copper	21.9		2.1	0.23	mg/Kg	1	✱	6020B	Total/NA
Manganese	234		4.2	0.42	mg/Kg	1	✱	6020B	Total/NA
Nickel	11.4		2.1	0.20	mg/Kg	1	✱	6020B	Total/NA
Lead	387		0.63	0.21	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.28	J	1.3	0.12	mg/Kg	1	✱	6020B	Total/NA
Zinc	160		8.3	2.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.30		0.018	0.0041	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	12.9		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 052_LB-32-15-16

Lab Sample ID: 460-241982-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	21	J	380	6.8	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	27	J	380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	30	J	380	9.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	23	J	38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	17	J	380	6.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	25	J	38	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	8.8	J	38	7.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	18	J	38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	19	J	38	15	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	19	J	380	11	ug/Kg	1	✱	8270E	Total/NA
Perfluorooctanesulfonic acid	0.73		0.69	0.23	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.9		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	19.3		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.24	J	0.43	0.061	mg/Kg	1	✱	6020B	Total/NA
Chromium	10.6		2.1	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	37.8		2.1	0.23	mg/Kg	1	✱	6020B	Total/NA
Manganese	252		4.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	15.1		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	21.0		0.64	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	128		8.5	2.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.055		0.018	0.0043	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	10.6		2.0	2.0	mg/Kg	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 053_LB-33-5-7

Lab Sample ID: 460-241982-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.4	J	5.1	0.38	ug/Kg	1	✱	8260D	Total/NA
Acetone	46		6.2	5.9	ug/Kg	1	✱	8260D	Total/NA
Silver	0.19	J	1.0	0.093	mg/Kg	1	✱	6020B	Total/NA
Arsenic	2.4		1.0	0.10	mg/Kg	1	✱	6020B	Total/NA
Barium	77.5		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.27	J	0.42	0.060	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.30	J	1.0	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	10.3		2.1	0.18	mg/Kg	1	✱	6020B	Total/NA
Copper	93.6		2.1	0.23	mg/Kg	1	✱	6020B	Total/NA
Manganese	292		4.2	0.42	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.1		2.1	0.20	mg/Kg	1	✱	6020B	Total/NA
Lead	242		0.63	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	128		8.4	2.4	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	10.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 054_LB-33-15-16

Lab Sample ID: 460-241982-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	10	J	380	6.7	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	19	J	380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	21	J	380	9.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	18	J	38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	11	J	380	6.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	16	J	38	9.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	7.8	J	38	7.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	13	J	38	10	ug/Kg	1	✱	8270E	Total/NA
Arsenic	1.5		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	19.4		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.21	J	0.43	0.061	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.2		2.1	0.18	mg/Kg	1	✱	6020B	Total/NA
Copper	8.3		2.1	0.23	mg/Kg	1	✱	6020B	Total/NA
Manganese	195		4.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	8.9		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	7.2		0.64	0.21	mg/Kg	1	✱	6020B	Total/NA
Zinc	20.7		8.5	2.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.069		0.018	0.0043	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	12.2		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 055_LB-34-5-7

Lab Sample ID: 460-241982-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	5.2		4.3	0.31	ug/Kg	1	✱	8260D	Total/NA
Acetone	31		5.1	4.9	ug/Kg	1	✱	8260D	Total/NA
Acenaphthene	15	J	340	9.8	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	5.7	J	340	4.8	ug/Kg	1	✱	8270E	Total/NA
Fluorene	11	J	340	4.7	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	240	J	340	6.1	ug/Kg	1	✱	8270E	Total/NA
Anthracene	55	J	340	10	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	380		340	12	ug/Kg	1	✱	8270E	Total/NA
Pyrene	390		340	8.6	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	190		34	12	ug/Kg	1	✱	8270E	Total/NA
Chrysene	180	J	340	5.8	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 055_LB-34-5-7 (Continued)

Lab Sample ID: 460-241982-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	250		34	8.9	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	87		34	6.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	200		34	9.2	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	120		34	13	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	30	J	34	15	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	120	J	340	10	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDE	3.3	J	7.0	0.82	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	3.8	J	7.0	1.3	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.90		0.57	0.19	ug/Kg	1	✱	537 IDA	Total/NA
6:2 Fluorotelomer sulfonic acid - DL	118		19.1	5.74	ug/Kg	10	✱	537 IDA	Total/NA
Arsenic	1.9		0.97	0.097	mg/Kg	1	✱	6020B	Total/NA
Barium	38.2		1.9	0.14	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.26	J	0.39	0.055	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.13	J	0.97	0.11	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.7		1.9	0.17	mg/Kg	1	✱	6020B	Total/NA
Copper	11.7		1.9	0.21	mg/Kg	1	✱	6020B	Total/NA
Manganese	295		3.9	0.39	mg/Kg	1	✱	6020B	Total/NA
Nickel	9.8		1.9	0.19	mg/Kg	1	✱	6020B	Total/NA
Lead	36.5		0.58	0.19	mg/Kg	1	✱	6020B	Total/NA
Zinc	43.4		7.7	2.2	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.022		0.016	0.0037	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.7		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 056_LB-34-15-16

Lab Sample ID: 460-241982-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.9		5.5	5.3	ug/Kg	1	✱	8260D	Total/NA
Arsenic	1.4		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	20.5		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.19	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.3		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	6.9		2.2	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	104		4.5	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	9.1		2.2	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	3.4		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	18.4		8.9	2.6	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.013	J	0.019	0.0044	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	12.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 057_LB-46-15-16

Lab Sample ID: 460-241982-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.41	J	0.97	0.24	ug/Kg	1	✱	8260D	Total/NA
Acetone	6.2		5.8	5.5	ug/Kg	1	✱	8260D	Total/NA
Naphthalene	22	J	440	7.6	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	25	J	440	7.7	ug/Kg	1	✱	8270E	Total/NA
Pyrene	13	J	440	11	ug/Kg	1	✱	8270E	Total/NA
Arsenic	1.5		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	14.9		2.5	0.18	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.31	J	0.49	0.070	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.5		2.5	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	8.1		2.5	0.27	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 057_LB-46-15-16 (Continued)

Lab Sample ID: 460-241982-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	389		4.9	0.50	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.6		2.5	0.24	mg/Kg	1	✱	6020B	Total/NA
Lead	5.1		0.74	0.25	mg/Kg	1	✱	6020B	Total/NA
Zinc	19.8		9.8	2.8	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.014	J	0.021	0.0048	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.5		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 058_LB-45-11-13

Lab Sample ID: 460-241982-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.37	J	1.5	0.37	ug/Kg	1	✱	8260D	Total/NA
2-Butanone (MEK)	46		7.6	0.56	ug/Kg	1	✱	8260D	Total/NA
Acetone	250		9.1	8.7	ug/Kg	1	✱	8260D	Total/NA
Methyl tert-butyl ether	0.77	J	1.5	0.77	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	2.1	J	3.0	1.7	ug/Kg	1	✱	8260D	Total/NA
Toluene	4.2		1.5	0.35	ug/Kg	1	✱	8260D	Total/NA
Arsenic	2.1		1.4	0.14	mg/Kg	1	✱	6020B	Total/NA
Barium	17.4		2.7	0.20	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.38	J	0.54	0.077	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.5		2.7	0.24	mg/Kg	1	✱	6020B	Total/NA
Copper	6.9		2.7	0.30	mg/Kg	1	✱	6020B	Total/NA
Manganese	107		5.4	0.55	mg/Kg	1	✱	6020B	Total/NA
Nickel	9.6		2.7	0.26	mg/Kg	1	✱	6020B	Total/NA
Lead	3.9		0.81	0.27	mg/Kg	1	✱	6020B	Total/NA
Zinc	23.6		10.9	3.1	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.019	J	0.023	0.0053	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.5		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 059_LB-45-15-16

Lab Sample ID: 460-241982-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	8.1		5.4	0.40	ug/Kg	1	✱	8260D	Total/NA
Acetone	41		6.5	6.2	ug/Kg	1	✱	8260D	Total/NA
Methyl tert-butyl ether	0.63	J	1.1	0.55	ug/Kg	1	✱	8260D	Total/NA
Toluene	1.3		1.1	0.25	ug/Kg	1	✱	8260D	Total/NA
Perfluorooctanesulfonic acid	0.26	J	0.78	0.26	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	2.4		1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Barium	24.4		2.6	0.19	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.43	J	0.53	0.075	mg/Kg	1	✱	6020B	Total/NA
Chromium	14.1		2.6	0.23	mg/Kg	1	✱	6020B	Total/NA
Copper	8.2		2.6	0.29	mg/Kg	1	✱	6020B	Total/NA
Manganese	171		5.3	0.53	mg/Kg	1	✱	6020B	Total/NA
Nickel	11.1		2.6	0.25	mg/Kg	1	✱	6020B	Total/NA
Lead	5.1		0.79	0.26	mg/Kg	1	✱	6020B	Total/NA
Zinc	27.4		10.5	3.0	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.020	J	0.021	0.0050	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	14.1		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 060_LB-44-8-10

Lab Sample ID: 460-241982-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	5.9		4.9	0.36	ug/Kg	1	✱	8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 060_LB-44-8-10 (Continued)

Lab Sample ID: 460-241982-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	39		5.8	5.6	ug/Kg	1	✱	8260D	Total/NA
Arsenic	2.1		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	32.2		2.3	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.35	J	0.45	0.065	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.0		2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	7.3		2.3	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	161		4.5	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.6		2.3	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	4.7		0.68	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	23.8		9.1	2.6	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	11.0		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 061_LB-44-15-16

Lab Sample ID: 460-241982-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12		5.7	5.5	ug/Kg	1	✱	8260D	Total/NA
Arsenic	1.4		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	6.8		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.25	J	0.44	0.062	mg/Kg	1	✱	6020B	Total/NA
Chromium	8.3		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	5.0		2.2	0.24	mg/Kg	1	✱	6020B	Total/NA
Manganese	51.3		4.4	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	7.1		2.2	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	3.5		0.66	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	17.2		8.7	2.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.0052	J	0.018	0.0043	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	8.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 062_LB-43-9-11

Lab Sample ID: 460-241982-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	5.2		5.2	0.38	ug/Kg	1	✱	8260D	Total/NA
Acetone	49		6.2	5.9	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	1.7	J	2.1	1.2	ug/Kg	1	✱	8260D	Total/NA
Phenanthrene	13	J	420	7.3	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	34	J	420	15	ug/Kg	1	✱	8270E	Total/NA
Pyrene	45	J	420	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	30	J	42	15	ug/Kg	1	✱	8270E	Total/NA
Chrysene	28	J	420	7.1	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	26	J	42	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	11	J	42	8.2	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	25	J	42	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	14	J	420	12	ug/Kg	1	✱	8270E	Total/NA
Arsenic	2.2		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	13.3		2.4	0.18	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.42	J	0.49	0.069	mg/Kg	1	✱	6020B	Total/NA
Chromium	9.3		2.4	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	5.7		2.4	0.27	mg/Kg	1	✱	6020B	Total/NA
Manganese	62.3		4.9	0.49	mg/Kg	1	✱	6020B	Total/NA
Nickel	9.1		2.4	0.24	mg/Kg	1	✱	6020B	Total/NA
Lead	5.6		0.73	0.24	mg/Kg	1	✱	6020B	Total/NA
Zinc	20.4		9.7	2.8	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 062_LB-43-9-11 (Continued)

Lab Sample ID: 460-241982-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.014	J	0.020	0.0047	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	9.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 063_LB-43-15-16

Lab Sample ID: 460-241982-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.5	J	7.6	0.56	ug/Kg	1	✱	8260D	Total/NA
Acetone	27		9.1	8.7	ug/Kg	1	✱	8260D	Total/NA
3 & 4 Methylphenol	110	J	630	39	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	52	J	630	11	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	40	J	630	6.4	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	35	J	630	18	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	24	J	630	8.9	ug/Kg	1	✱	8270E	Total/NA
Fluorene	42	J	630	8.6	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	600	J	630	11	ug/Kg	1	✱	8270E	Total/NA
Anthracene	210	J	630	19	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	1300		630	22	ug/Kg	1	✱	8270E	Total/NA
Pyrene	1800		630	16	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	990		63	22	ug/Kg	1	✱	8270E	Total/NA
Chrysene	1100		630	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	1200		63	16	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	390		63	12	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	1000		63	17	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	600		63	25	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	160		63	27	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	550	J	630	19	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	3.9	J	13	2.2	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDE	4.5	J	13	1.5	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	21	*	13	2.3	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.66	J	1.05	0.35	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	4.4		1.9	0.19	mg/Kg	1	✱	6020B	Total/NA
Barium	25.8		3.7	0.27	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.26	J	0.74	0.11	mg/Kg	1	✱	6020B	Total/NA
Chromium	10.8		3.7	0.32	mg/Kg	1	✱	6020B	Total/NA
Copper	7.6		3.7	0.41	mg/Kg	1	✱	6020B	Total/NA
Manganese	173		7.4	0.75	mg/Kg	1	✱	6020B	Total/NA
Nickel	8.4		3.7	0.36	mg/Kg	1	✱	6020B	Total/NA
Lead	16.0		1.1	0.37	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.27	J	2.3	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	22.4		14.8	4.2	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.16		0.030	0.0071	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	10.8		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 064_LB-42-5-7

Lab Sample ID: 460-241982-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	5.4		4.4	0.33	ug/Kg	1	✱	8260D	Total/NA
Acetone	35		5.3	5.1	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	1.4	J	1.8	1.0	ug/Kg	1	✱	8260D	Total/NA
Phenol	220	J	430	16	ug/Kg	1	✱	8270E	Total/NA
3 & 4 Methylphenol	3100		430	27	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	1600		430	7.5	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 064_LB-42-5-7 (Continued)

Lab Sample ID: 460-241982-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	310	J	430	4.4	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	1000		430	12	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	690		430	6.1	ug/Kg	1	✱	8270E	Total/NA
Fluorene	1400		430	5.9	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	7000		430	7.6	ug/Kg	1	✱	8270E	Total/NA
Anthracene	1700		430	13	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	5700		430	15	ug/Kg	1	✱	8270E	Total/NA
Pyrene	5900		430	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	2600		43	15	ug/Kg	1	✱	8270E	Total/NA
Chrysene	2700		430	7.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	2900		43	11	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	880		43	8.5	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	2700		43	12	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	1400		43	17	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	350		43	19	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	1300		430	13	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDE	4.2	J	8.8	1.0	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	4.2	J	8.8	1.6	ug/Kg	1	✱	8081B	Total/NA
Silver	0.18	J	1.3	0.11	mg/Kg	1	✱	6020B	Total/NA
Arsenic	5.0		1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Barium	128		2.5	0.18	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.49	J	0.50	0.071	mg/Kg	1	✱	6020B	Total/NA
Chromium	17.5		2.5	0.22	mg/Kg	1	✱	6020B	Total/NA
Copper	35.9		2.5	0.28	mg/Kg	1	✱	6020B	Total/NA
Manganese	351		5.0	0.50	mg/Kg	1	✱	6020B	Total/NA
Nickel	15.5		2.5	0.24	mg/Kg	1	✱	6020B	Total/NA
Lead	443		0.75	0.25	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.98	J	1.6	0.15	mg/Kg	1	✱	6020B	Total/NA
Zinc	118		10.0	2.9	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.80		0.020	0.0048	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	17.5		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 065_LB-42-15-16

Lab Sample ID: 460-241982-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.6		4.5	0.33	ug/Kg	1	✱	8260D	Total/NA
Acetone	26		5.4	5.2	ug/Kg	1	✱	8260D	Total/NA
3 & 4 Methylphenol	69	J	400	25	ug/Kg	1	✱	8270E	Total/NA
Naphthalene	75	J	400	6.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	15	J	400	4.0	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	36	J	400	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	25	J	400	5.6	ug/Kg	1	✱	8270E	Total/NA
Fluorene	57	J	400	5.4	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	340	J	400	7.1	ug/Kg	1	✱	8270E	Total/NA
Anthracene	81	J	400	12	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	310	J	400	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	400		400	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	180		40	14	ug/Kg	1	✱	8270E	Total/NA
Chrysene	180	J	400	6.8	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	200		40	10	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	64		40	7.9	ug/Kg	1	✱	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 065_LB-42-15-16 (Continued)

Lab Sample ID: 460-241982-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	180		40	11	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	100		40	16	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	34	J	40	17	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	93	J	400	12	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDD	4.7	J	8.1	1.4	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDE	5.8	J	8.1	0.96	ug/Kg	1	✱	8081B	Total/NA
4,4'-DDT	4.9	J *	8.1	1.5	ug/Kg	1	✱	8081B	Total/NA
Perfluorooctanesulfonic acid	0.24	J	0.70	0.23	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	2.2		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	27.0		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.34	J	0.46	0.065	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.3		2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	8.9		2.3	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	159		4.6	0.46	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.2		2.3	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	12.8		0.69	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	27.8		9.2	2.6	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.015	J	0.021	0.0049	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	12.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 066_TB-2B

Lab Sample ID: 460-241982-29

No Detections.

Client Sample ID: 067_FB-2

Lab Sample ID: 460-241982-30

No Detections.

Client Sample ID: 068_FB-3

Lab Sample ID: 460-241982-31

No Detections.

Client Sample ID: 069_FB-4

Lab Sample ID: 460-241982-32

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 038_LB-49-8-10

Lab Sample ID: 460-241982-1

Date Collected: 08/31/21 08:50

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.2

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
2-Methylphenol	380	U	380	14	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
3 & 4 Methylphenol	37	J	380	24	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Pentachlorophenol	310	U	310	78	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Naphthalene	530		380	6.6	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Acenaphthylene	550		380	3.8	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Acenaphthene	50	J	380	11	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Dibenzofuran	160	J	380	5.3	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Fluorene	75	J	380	5.1	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Hexachlorobenzene	38	U	38	18	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Phenanthrene	1100		380	6.7	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Anthracene	870		380	12	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Fluoranthene	3100		380	13	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Pyrene	2800		380	9.4	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Benzo[a]anthracene	1600		38	13	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Chrysene	1500	*	380	6.4	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Benzo[b]fluoranthene	2500		38	9.8	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Benzo[k]fluoranthene	830		38	7.4	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Benzo[a]pyrene	1700		38	10	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Indeno[1,2,3-cd]pyrene	940		38	15	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Dibenz(a,h)anthracene	220		38	16	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
Benzo[g,h,i]perylene	1100		380	11	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	09/02/21 11:09	09/03/21 04:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	47		11 - 104	09/02/21 11:09	09/03/21 04:52	1
Phenol-d5 (Surr)	52		15 - 100	09/02/21 11:09	09/03/21 04:52	1
Terphenyl-d14 (Surr)	54		12 - 126	09/02/21 11:09	09/03/21 04:52	1
2,4,6-Tribromophenol (Surr)	48		10 - 123	09/02/21 11:09	09/03/21 04:52	1
2-Fluorophenol (Surr)	51		10 - 105	09/02/21 11:09	09/03/21 04:52	1
2-Fluorobiphenyl	47		14 - 103	09/02/21 11:09	09/03/21 04:52	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	14	J	38	6.5	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
4,4'-DDE	85		38	4.5	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
4,4'-DDT	420		38	7.1	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Aldrin	38	U	38	5.8	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
alpha-BHC	11	U	11	3.9	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
beta-BHC	11	U	11	4.3	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Chlordane (technical)	380	U	380	93	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
delta-BHC	11	U	11	2.4	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Dieldrin	11	U	11	5.0	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Endosulfan I	38	U	38	5.9	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Endosulfan II	38	U	38	9.9	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Endosulfan sulfate	38	U	38	4.8	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Endrin	38	U	38	5.5	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Endrin aldehyde	38	U	38	9.1	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
Endrin ketone	38	U	38	7.5	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5
gamma-BHC (Lindane)	11	U	11	3.6	ug/Kg	✱	09/02/21 18:26	09/03/21 09:49	5

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 038_LB-49-8-10

Lab Sample ID: 460-241982-1

Date Collected: 08/31/21 08:50

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.2

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	38	U	38	4.5	ug/Kg	☆	09/02/21 18:26	09/03/21 09:49	5
Heptachlor epoxide	38	U	38	5.7	ug/Kg	☆	09/02/21 18:26	09/03/21 09:49	5
Methoxychlor	38	U	38	8.8	ug/Kg	☆	09/02/21 18:26	09/03/21 09:49	5
Toxaphene	380	U	380	140	ug/Kg	☆	09/02/21 18:26	09/03/21 09:49	5
cis-Chlordane	38	U	38	6.1	ug/Kg	☆	09/02/21 18:26	09/03/21 09:49	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	108		10 - 150	09/02/21 18:26	09/03/21 09:49	5
DCB Decachlorobiphenyl	96		10 - 150	09/02/21 18:26	09/03/21 09:49	5
Tetrachloro-m-xylene	106		10 - 133	09/02/21 18:26	09/03/21 09:49	5
Tetrachloro-m-xylene	86		10 - 133	09/02/21 18:26	09/03/21 09:49	5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Aroclor 1221	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Aroclor 1232	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Aroclor 1242	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Aroclor 1248	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Aroclor 1254	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Aroclor 1260	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Aroclor-1262	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Aroclor 1268	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1
Polychlorinated biphenyls, Total	77	U	77	20	ug/Kg	☆	09/02/21 17:59	09/03/21 07:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		37 - 150	09/02/21 17:59	09/03/21 07:43	1
DCB Decachlorobiphenyl	90		37 - 150	09/02/21 17:59	09/03/21 07:43	1
Tetrachloro-m-xylene	82		54 - 150	09/02/21 17:59	09/03/21 07:43	1
Tetrachloro-m-xylene	80		54 - 150	09/02/21 17:59	09/03/21 07:43	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	☆	09/03/21 00:12	09/03/21 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	123		65 - 150	09/03/21 00:12	09/03/21 18:16	1
2,4-Dichlorophenylacetic acid	125		65 - 150	09/03/21 00:12	09/03/21 18:16	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluoroheptanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluorooctanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluorononanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluorodecanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluorotridecanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluorotetradecanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluorobutanesulfonic acid	2.12	U	2.12	0.42	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluorohexanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1
Perfluorooctanesulfonic acid	2.80		0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/05/21 22:29	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 038_LB-49-8-10

Lab Sample ID: 460-241982-1

Date Collected: 08/31/21 08:50

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.2

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.12	U	2.12	0.21	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
NMeFOSAA	2.12	U	2.12	0.21	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
Perfluoroheptanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
Perfluorodecanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
Perfluorooctanesulfonamide	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
Perfluorobutanoic acid	2.12	U	2.12	0.85	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
Perfluoroundecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
Perfluorododecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
6:2 Fluorotelomer sulfonic acid	2.12	U	2.12	0.64	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
8:2 Fluorotelomer sulfonic acid	3.19	U	3.19	0.64	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
Perfluoropentanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 08:39	09/05/21 22:29	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	84		10 - 178				09/03/21 08:39	09/05/21 22:29	1
M2-6:2 FTS	88		10 - 182				09/03/21 08:39	09/05/21 22:29	1
13C5 PFHxA	92		11 - 138				09/03/21 08:39	09/05/21 22:29	1
13C4 PFHpA	95		15 - 139				09/03/21 08:39	09/05/21 22:29	1
13C8 PFOA	97		21 - 133				09/03/21 08:39	09/05/21 22:29	1
13C9 PFNA	90		15 - 145				09/03/21 08:39	09/05/21 22:29	1
13C6 PFDA	86		21 - 134				09/03/21 08:39	09/05/21 22:29	1
13C7 PFUnA	86		15 - 138				09/03/21 08:39	09/05/21 22:29	1
13C2-PFDoDA	84		28 - 126				09/03/21 08:39	09/05/21 22:29	1
13C2 PFTeDA	88		10 - 138				09/03/21 08:39	09/05/21 22:29	1
13C3 PFBS	108		23 - 130				09/03/21 08:39	09/05/21 22:29	1
13C3 PFHxS	99		24 - 136				09/03/21 08:39	09/05/21 22:29	1
13C8 PFOS	92		31 - 130				09/03/21 08:39	09/05/21 22:29	1
d3-NMeFOSAA	27		10 - 172				09/03/21 08:39	09/05/21 22:29	1
d5-NEtFOSAA	38		10 - 176				09/03/21 08:39	09/05/21 22:29	1
13C8 FOSA	89		25 - 135				09/03/21 08:39	09/05/21 22:29	1
13C4 PFBA	86		12 - 137				09/03/21 08:39	09/05/21 22:29	1
13C5 PFPeA	91		12 - 135				09/03/21 08:39	09/05/21 22:29	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.23	J	1.1	0.096	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Arsenic	21.8		1.1	0.11	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Barium	306		2.2	0.16	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Beryllium	0.29	J	0.43	0.062	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Cadmium	0.91	J	1.1	0.12	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Chromium	25.9		2.2	0.19	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Copper	231		2.2	0.24	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Manganese	660		4.3	0.44	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Nickel	40.2		2.2	0.21	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Lead	1150		0.65	0.22	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Selenium	0.67	J	1.4	0.13	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1
Zinc	378		8.7	2.5	mg/Kg	✱	09/08/21 04:22	09/08/21 11:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.39		0.020	0.0046	mg/Kg	✱	09/03/21 03:44	09/03/21 08:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 038_LB-49-8-10

Lab Sample ID: 460-241982-1

Date Collected: 08/31/21 08:50

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	25.9		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.3	U	2.3	0.97	mg/Kg	☆	09/07/21 14:44	09/08/21 14:00	1
Cyanide, Total	0.24	J	0.25	0.14	mg/Kg	☆	09/05/21 14:10	09/06/21 19:07	1
Percent Moisture	12.8		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	87.2		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 039_LB-49-15-16

Lab Sample ID: 460-241982-2

Date Collected: 08/31/21 09:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
2-Methylphenol	390	U	390	14	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Pentachlorophenol	310	U	310	79	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Naphthalene	22	J	390	6.7	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Acenaphthylene	33	J	390	3.9	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Acenaphthene	390	U	390	11	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Dibenzofuran	19	J	390	5.4	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Fluorene	14	J	390	5.2	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Hexachlorobenzene	39	U	39	18	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Phenanthrene	320	J	390	6.8	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Anthracene	46	J	390	12	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Fluoranthene	480		390	13	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Pyrene	410		390	9.6	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Benzo[a]anthracene	230		39	13	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Chrysene	220	J *	390	6.5	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Benzo[b]fluoranthene	330		39	10	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Benzo[k]fluoranthene	120		39	7.6	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Benzo[a]pyrene	260		39	10	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Indeno[1,2,3-cd]pyrene	200		39	15	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Dibenz(a,h)anthracene	47		39	17	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
Benzo[g,h,i]perylene	170	J	390	11	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1
1,4-Dioxane	39	U	39	34	ug/Kg	☆	09/02/21 11:09	09/03/21 02:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	69		11 - 104	09/02/21 11:09	09/03/21 02:56	1
Phenol-d5 (Surr)	77		15 - 100	09/02/21 11:09	09/03/21 02:56	1
Terphenyl-d14 (Surr)	81		12 - 126	09/02/21 11:09	09/03/21 02:56	1
2,4,6-Tribromophenol (Surr)	58		10 - 123	09/02/21 11:09	09/03/21 02:56	1
2-Fluorophenol (Surr)	75		10 - 105	09/02/21 11:09	09/03/21 02:56	1
2-Fluorobiphenyl	66		14 - 103	09/02/21 11:09	09/03/21 02:56	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
4,4'-DDE	7.8	U	7.8	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
4,4'-DDT	7.8	U	7.8	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 039_LB-49-15-16

Lab Sample ID: 460-241982-2

Date Collected: 08/31/21 09:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
beta-BHC	2.3	U	2.3	0.88	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Chlordane (technical)	78	U	78	19	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Endrin	7.8	U	7.8	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Heptachlor	7.8	U	7.8	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
Toxaphene	78	U	78	28	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		10 - 150	09/02/21 18:26	09/03/21 08:13	1
DCB Decachlorobiphenyl	82		10 - 150	09/02/21 18:26	09/03/21 08:13	1
Tetrachloro-m-xylene	79		10 - 133	09/02/21 18:26	09/03/21 08:13	1
Tetrachloro-m-xylene	79		10 - 133	09/02/21 18:26	09/03/21 08:13	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Aroclor 1221	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Aroclor 1232	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Aroclor 1242	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Aroclor 1248	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Aroclor 1254	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Aroclor 1260	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Aroclor-1262	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Aroclor 1268	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		37 - 150	09/02/21 17:59	09/03/21 08:00	1
DCB Decachlorobiphenyl	91		37 - 150	09/02/21 17:59	09/03/21 08:00	1
Tetrachloro-m-xylene	85		54 - 150	09/02/21 17:59	09/03/21 08:00	1
Tetrachloro-m-xylene	81		54 - 150	09/02/21 17:59	09/03/21 08:00	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.0	ug/Kg	☆	09/03/21 00:12	09/03/21 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	111		65 - 150	09/03/21 00:12	09/03/21 18:30	1
2,4-Dichlorophenylacetic acid	117		65 - 150	09/03/21 00:12	09/03/21 18:30	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 039_LB-49-15-16

Lab Sample ID: 460-241982-2

Date Collected: 08/31/21 09:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.7

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluoroheptanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorooctanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorononanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorodecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorotridecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorotetradecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorobutanesulfonic acid	2.31	U	2.31	0.46	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorohexanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorooctanesulfonic acid	0.28	J	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
NEtFOSAA	2.31	U	2.31	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
NMeFOSAA	2.31	U	2.31	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluoroheptanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorodecanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorooctanesulfonamide	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorobutanoic acid	2.31	U	2.31	0.92	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluoroundecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluorododecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
6:2 Fluorotelomer sulfonic acid	2.31	U	2.31	0.69	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
8:2 Fluorotelomer sulfonic acid	3.47	U	3.47	0.69	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1
Perfluoropentanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/05/21 22:40	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	97		10 - 178	09/03/21 08:39	09/05/21 22:40	1
M2-6:2 FTS	106		10 - 182	09/03/21 08:39	09/05/21 22:40	1
13C5 PFHxA	90		11 - 138	09/03/21 08:39	09/05/21 22:40	1
13C4 PFHpA	95		15 - 139	09/03/21 08:39	09/05/21 22:40	1
13C8 PFOA	96		21 - 133	09/03/21 08:39	09/05/21 22:40	1
13C9 PFNA	98		15 - 145	09/03/21 08:39	09/05/21 22:40	1
13C6 PFDA	95		21 - 134	09/03/21 08:39	09/05/21 22:40	1
13C7 PFUnA	93		15 - 138	09/03/21 08:39	09/05/21 22:40	1
13C2-PFDoDA	95		28 - 126	09/03/21 08:39	09/05/21 22:40	1
13C2 PFTeDA	93		10 - 138	09/03/21 08:39	09/05/21 22:40	1
13C3 PFBS	105		23 - 130	09/03/21 08:39	09/05/21 22:40	1
13C3 PFHxS	95		24 - 136	09/03/21 08:39	09/05/21 22:40	1
13C8 PFOS	98		31 - 130	09/03/21 08:39	09/05/21 22:40	1
d3-NMeFOSAA	71		10 - 172	09/03/21 08:39	09/05/21 22:40	1
d5-NEtFOSAA	78		10 - 176	09/03/21 08:39	09/05/21 22:40	1
13C8 FOSA	87		25 - 135	09/03/21 08:39	09/05/21 22:40	1
13C4 PFBA	92		12 - 137	09/03/21 08:39	09/05/21 22:40	1
13C5 PFPeA	103		12 - 135	09/03/21 08:39	09/05/21 22:40	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.095	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Arsenic	1.7		1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Barium	50.3		2.1	0.16	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Beryllium	0.28	J	0.43	0.061	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Chromium	13.0		2.1	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 039_LB-49-15-16

Lab Sample ID: 460-241982-2

Date Collected: 08/31/21 09:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.7

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	20.3		2.1	0.24	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Manganese	151		4.3	0.43	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Nickel	13.2		2.1	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Lead	121		0.64	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Selenium	1.3	U	1.3	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1
Zinc	51.1		8.6	2.5	mg/Kg	☆	09/08/21 04:22	09/08/21 11:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.018	0.0041	mg/Kg	☆	09/03/21 03:44	09/03/21 08:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	13.0		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.3	U	2.3	0.99	mg/Kg	☆	09/07/21 14:44	09/08/21 14:00	1
Cyanide, Total	0.25	U	0.25	0.14	mg/Kg	☆	09/05/21 14:10	09/06/21 19:08	1
Percent Moisture	14.3		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	85.7		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 040_LB-48-5-7

Lab Sample ID: 460-241982-3

Date Collected: 08/31/21 10:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
2-Methylphenol	390	U	390	14	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Pentachlorophenol	310	U	310	79	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Naphthalene	390	U	390	6.7	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Acenaphthylene	390	U	390	3.9	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Acenaphthene	390	U	390	11	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Dibenzofuran	390	U	390	5.4	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Fluorene	390	U	390	5.3	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Hexachlorobenzene	39	U	39	18	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Phenanthrene	390	U	390	6.8	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Anthracene	390	U	390	12	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Fluoranthene	390	U	390	14	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Pyrene	10	J	390	9.6	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Benzo[a]anthracene	39	U	39	14	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Chrysene	6.9	J *	390	6.5	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Benzo[b]fluoranthene	39	U	39	10	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Benzo[k]fluoranthene	39	U	39	7.6	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Benzo[a]pyrene	39	U	39	10	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Indeno[1,2,3-cd]pyrene	39	U	39	15	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
Benzo[g,h,i]perylene	390	U	390	11	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1
1,4-Dioxane	39	U	39	34	ug/Kg	☆	09/02/21 11:09	09/03/21 02:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	64		11 - 104	09/02/21 11:09	09/03/21 02:32	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 040_LB-48-5-7

Lab Sample ID: 460-241982-3

Date Collected: 08/31/21 10:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	72		15 - 100	09/02/21 11:09	09/03/21 02:32	1
Terphenyl-d14 (Surr)	75		12 - 126	09/02/21 11:09	09/03/21 02:32	1
2,4,6-Tribromophenol (Surr)	62		10 - 123	09/02/21 11:09	09/03/21 02:32	1
2-Fluorophenol (Surr)	70		10 - 105	09/02/21 11:09	09/03/21 02:32	1
2-Fluorobiphenyl	61		14 - 103	09/02/21 11:09	09/03/21 02:32	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
4,4'-DDE	7.8	U	7.8	0.93	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
4,4'-DDT	7.8	U	7.8	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
alpha-BHC	2.3	U	2.3	0.80	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
beta-BHC	2.3	U	2.3	0.88	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Chlordane (technical)	78	U	78	19	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Endrin	7.8	U	7.8	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Endrin aldehyde	7.8	U	7.8	1.9	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
gamma-BHC (Lindane)	2.3	U	2.3	0.73	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Heptachlor	7.8	U	7.8	0.93	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
Toxaphene	78	U	78	28	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	80		10 - 150	09/02/21 18:26	09/03/21 08:29	1
DCB Decachlorobiphenyl	78		10 - 150	09/02/21 18:26	09/03/21 08:29	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:26	09/03/21 08:29	1
Tetrachloro-m-xylene	77		10 - 133	09/02/21 18:26	09/03/21 08:29	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Aroclor 1221	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Aroclor 1232	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Aroclor 1242	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Aroclor 1248	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Aroclor 1254	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Aroclor 1260	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Aroclor-1262	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Aroclor 1268	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:17	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 040_LB-48-5-7

Lab Sample ID: 460-241982-3

Date Collected: 08/31/21 10:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	92		37 - 150	09/02/21 17:59	09/03/21 08:17	1
DCB Decachlorobiphenyl	93		37 - 150	09/02/21 17:59	09/03/21 08:17	1
Tetrachloro-m-xylene	88		54 - 150	09/02/21 17:59	09/03/21 08:17	1
Tetrachloro-m-xylene	83		54 - 150	09/02/21 17:59	09/03/21 08:17	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	☆	09/03/21 00:12	09/03/21 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	115		65 - 150	09/03/21 00:12	09/03/21 18:43	1
2,4-Dichlorophenylacetic acid	120		65 - 150	09/03/21 00:12	09/03/21 18:43	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorooctanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorobutanesulfonic acid	2.23	U	2.23	0.45	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorooctanesulfonic acid	0.42	J	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
NEtFOSAA	2.23	U	2.23	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
NMeFOSAA	2.23	U	2.23	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorobutanoic acid	2.23	U	2.23	0.89	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
6:2 Fluorotelomer sulfonic acid	2.23	U	2.23	0.67	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
8:2 Fluorotelomer sulfonic acid	3.35	U	3.35	0.67	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 22:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	84		10 - 178	09/03/21 08:39	09/05/21 22:51	1
M2-6:2 FTS	96		10 - 182	09/03/21 08:39	09/05/21 22:51	1
13C5 PFHxA	87		11 - 138	09/03/21 08:39	09/05/21 22:51	1
13C4 PFHpA	94		15 - 139	09/03/21 08:39	09/05/21 22:51	1
13C8 PFOA	97		21 - 133	09/03/21 08:39	09/05/21 22:51	1
13C9 PFNA	91		15 - 145	09/03/21 08:39	09/05/21 22:51	1
13C6 PFDA	96		21 - 134	09/03/21 08:39	09/05/21 22:51	1
13C7 PFUnA	91		15 - 138	09/03/21 08:39	09/05/21 22:51	1
13C2-PFDoDA	85		28 - 126	09/03/21 08:39	09/05/21 22:51	1
13C2 PFTeDA	87		10 - 138	09/03/21 08:39	09/05/21 22:51	1
13C3 PFBS	104		23 - 130	09/03/21 08:39	09/05/21 22:51	1
13C3 PFHxS	95		24 - 136	09/03/21 08:39	09/05/21 22:51	1
13C8 PFOS	97		31 - 130	09/03/21 08:39	09/05/21 22:51	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 040_LB-48-5-7

Lab Sample ID: 460-241982-3

Date Collected: 08/31/21 10:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	37		10 - 172	09/03/21 08:39	09/05/21 22:51	1
d5-NEtFOSAA	49		10 - 176	09/03/21 08:39	09/05/21 22:51	1
13C8 FOSA	82		25 - 135	09/03/21 08:39	09/05/21 22:51	1
13C4 PFBA	89		12 - 137	09/03/21 08:39	09/05/21 22:51	1
13C5 PFPeA	97		12 - 135	09/03/21 08:39	09/05/21 22:51	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.098	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Arsenic	2.1		1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Barium	17.0		2.2	0.16	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Beryllium	0.25	J	0.44	0.063	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Chromium	9.0		2.2	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Copper	8.8		2.2	0.24	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Manganese	111		4.4	0.45	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Nickel	9.4		2.2	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Lead	10.0		0.66	0.22	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Selenium	1.4	U	1.4	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1
Zinc	25.2		8.8	2.5	mg/Kg	☆	09/08/21 04:22	09/08/21 12:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.057		0.018	0.0043	mg/Kg	☆	09/03/21 03:44	09/03/21 08:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.0		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.3	U	2.3	0.99	mg/Kg	☆	09/07/21 14:44	09/08/21 14:00	1
Cyanide, Total	0.28	U	0.28	0.15	mg/Kg	☆	09/05/21 14:10	09/06/21 19:09	1
Percent Moisture	14.6		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	85.4		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 041_LB-48-15-16

Lab Sample ID: 460-241982-4

Date Collected: 08/31/21 10:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Pentachlorophenol	310	U	310	79	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Naphthalene	380	U	380	6.6	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Acenaphthylene	380	U	380	3.9	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Acenaphthene	380	U	380	11	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Dibenzofuran	380	U	380	5.4	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Fluorene	380	U	380	5.2	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Phenanthrene	380	U	380	6.8	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Anthracene	380	U	380	12	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 041_LB-48-15-16

Lab Sample ID: 460-241982-4

Date Collected: 08/31/21 10:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	380	U	380	13	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Pyrene	380	U	380	9.6	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Benzo[a]anthracene	38	U	38	13	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Chrysene	380	U *	380	6.5	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Benzo[b]fluoranthene	38	U	38	10	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Benzo[k]fluoranthene	38	U	38	7.5	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Benzo[a]pyrene	38	U	38	10	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Indeno[1,2,3-cd]pyrene	38	U	38	15	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Dibenz(a,h)anthracene	38	U	38	17	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
Benzo[g,h,i]perylene	380	U	380	11	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1
1,4-Dioxane	38	U	38	34	ug/Kg	☆	09/02/21 11:09	09/02/21 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	57		11 - 104	09/02/21 11:09	09/02/21 22:14	1
Phenol-d5 (Surr)	65		15 - 100	09/02/21 11:09	09/02/21 22:14	1
Terphenyl-d14 (Surr)	66		12 - 126	09/02/21 11:09	09/02/21 22:14	1
2,4,6-Tribromophenol (Surr)	58		10 - 123	09/02/21 11:09	09/02/21 22:14	1
2-Fluorophenol (Surr)	63		10 - 105	09/02/21 11:09	09/02/21 22:14	1
2-Fluorobiphenyl	52		14 - 103	09/02/21 11:09	09/02/21 22:14	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
4,4'-DDE	7.8	U	7.8	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
4,4'-DDT	7.8	U	7.8	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Chlordane (technical)	78	U	78	19	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Endrin	7.8	U	7.8	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Heptachlor	7.8	U	7.8	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
Toxaphene	78	U	78	28	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	09/02/21 18:26	09/03/21 08:45	1
DCB Decachlorobiphenyl	87		10 - 150	09/02/21 18:26	09/03/21 08:45	1
Tetrachloro-m-xylene	82		10 - 133	09/02/21 18:26	09/03/21 08:45	1
Tetrachloro-m-xylene	84		10 - 133	09/02/21 18:26	09/03/21 08:45	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 041_LB-48-15-16

Lab Sample ID: 460-241982-4

Date Collected: 08/31/21 10:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Aroclor 1221	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Aroclor 1232	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Aroclor 1242	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Aroclor 1248	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Aroclor 1254	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Aroclor 1260	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Aroclor-1262	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Aroclor 1268	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	✱	09/02/21 17:59	09/03/21 08:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		37 - 150	09/02/21 17:59	09/03/21 08:34	1
DCB Decachlorobiphenyl	91		37 - 150	09/02/21 17:59	09/03/21 08:34	1
Tetrachloro-m-xylene	87		54 - 150	09/02/21 17:59	09/03/21 08:34	1
Tetrachloro-m-xylene	82		54 - 150	09/02/21 17:59	09/03/21 08:34	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.0	ug/Kg	✱	09/03/21 00:12	09/03/21 18:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	116		65 - 150	09/03/21 00:12	09/03/21 18:57	1
2,4-Dichlorophenylacetic acid	121		65 - 150	09/03/21 00:12	09/03/21 18:57	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorooctanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorobutanesulfonic acid	2.24	U	2.24	0.45	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorooctanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
NEtFOSAA	2.24	U	2.24	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
NMeFOSAA	2.24	U	2.24	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorobutanoic acid	2.24	U	2.24	0.89	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
6:2 Fluorotelomer sulfonic acid	2.24	U	2.24	0.67	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
8:2 Fluorotelomer sulfonic acid	3.35	U	3.35	0.67	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:02	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	94		10 - 178	09/03/21 08:39	09/05/21 23:02	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 041_LB-48-15-16

Lab Sample ID: 460-241982-4

Date Collected: 08/31/21 10:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	93		10 - 182	09/03/21 08:39	09/05/21 23:02	1
13C5 PFHxA	96		11 - 138	09/03/21 08:39	09/05/21 23:02	1
13C4 PFHpA	100		15 - 139	09/03/21 08:39	09/05/21 23:02	1
13C8 PFOA	105		21 - 133	09/03/21 08:39	09/05/21 23:02	1
13C9 PFNA	100		15 - 145	09/03/21 08:39	09/05/21 23:02	1
13C6 PFDA	98		21 - 134	09/03/21 08:39	09/05/21 23:02	1
13C7 PFUnA	95		15 - 138	09/03/21 08:39	09/05/21 23:02	1
13C2-PFDoDA	97		28 - 126	09/03/21 08:39	09/05/21 23:02	1
13C2 PFTeDA	96		10 - 138	09/03/21 08:39	09/05/21 23:02	1
13C3 PFBS	108		23 - 130	09/03/21 08:39	09/05/21 23:02	1
13C3 PFHxS	100		24 - 136	09/03/21 08:39	09/05/21 23:02	1
13C8 PFOS	98		31 - 130	09/03/21 08:39	09/05/21 23:02	1
d3-NMeFOSAA	68		10 - 172	09/03/21 08:39	09/05/21 23:02	1
d5-NEtFOSAA	80		10 - 176	09/03/21 08:39	09/05/21 23:02	1
13C8 FOSA	90		25 - 135	09/03/21 08:39	09/05/21 23:02	1
13C4 PFBA	96		12 - 137	09/03/21 08:39	09/05/21 23:02	1
13C5 PFPeA	103		12 - 135	09/03/21 08:39	09/05/21 23:02	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.097	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Arsenic	0.88	J	1.1	0.11	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Barium	19.4		2.2	0.16	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Beryllium	0.17	J	0.43	0.062	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Chromium	7.7		2.2	0.19	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Copper	7.9		2.2	0.24	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Manganese	83.7		4.3	0.44	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Nickel	7.0		2.2	0.21	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Lead	38.0		0.65	0.22	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1
Zinc	32.6		8.7	2.5	mg/Kg	✱	09/08/21 04:22	09/08/21 12:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0045	J	0.019	0.0044	mg/Kg	✱	09/03/21 03:44	09/03/21 08:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	7.7		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	✱	09/07/21 14:44	09/08/21 14:45	1
Cyanide, Total	0.27	U	0.27	0.15	mg/Kg	✱	09/05/21 14:10	09/06/21 19:10	1
Percent Moisture	14.0		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	86.0		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 042_LB-47-15-16

Lab Sample ID: 460-241982-5

Date Collected: 08/31/21 11:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
2-Methylphenol	390	U	390	15	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Pentachlorophenol	310	U	310	80	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Naphthalene	390	U	390	6.7	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Acenaphthylene	390	U	390	3.9	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Acenaphthene	390	U	390	11	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Dibenzofuran	390	U	390	5.5	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Fluorene	390	U	390	5.3	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Hexachlorobenzene	39	U	39	18	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Phenanthrene	390	U	390	6.8	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Anthracene	390	U	390	12	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Fluoranthene	22	J	390	14	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Pyrene	27	J	390	9.7	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Benzo[a]anthracene	24	J	39	14	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Chrysene	18	J *	390	6.6	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Benzo[b]fluoranthene	27	J	39	10	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Benzo[k]fluoranthene	13	J	39	7.6	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Benzo[a]pyrene	27	J	39	10	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Indeno[1,2,3-cd]pyrene	19	J	39	15	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
Benzo[g,h,i]perylene	18	J	390	11	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1
1,4-Dioxane	39	U	39	34	ug/Kg	✱	09/02/21 11:09	09/02/21 21:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	54		11 - 104	09/02/21 11:09	09/02/21 21:04	1
Phenol-d5 (Surr)	61		15 - 100	09/02/21 11:09	09/02/21 21:04	1
Terphenyl-d14 (Surr)	77		12 - 126	09/02/21 11:09	09/02/21 21:04	1
2,4,6-Tribromophenol (Surr)	59		10 - 123	09/02/21 11:09	09/02/21 21:04	1
2-Fluorophenol (Surr)	58		10 - 105	09/02/21 11:09	09/02/21 21:04	1
2-Fluorobiphenyl	50		14 - 103	09/02/21 11:09	09/02/21 21:04	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.9	U	7.9	1.3	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
4,4'-DDE	7.9	U	7.9	0.93	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
4,4'-DDT	7.9	U	7.9	1.4	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Aldrin	7.9	U	7.9	1.2	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
alpha-BHC	2.4	U	2.4	0.80	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
beta-BHC	2.4	U	2.4	0.88	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Chlordane (technical)	79	U	79	19	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
delta-BHC	2.4	U	2.4	0.48	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Endosulfan I	7.9	U	7.9	1.2	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Endosulfan II	7.9	U	7.9	2.0	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Endosulfan sulfate	7.9	U	7.9	0.99	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Endrin	7.9	U	7.9	1.1	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Endrin aldehyde	7.9	U	7.9	1.9	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
Endrin ketone	7.9	U	7.9	1.5	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1
gamma-BHC (Lindane)	2.4	U	2.4	0.73	ug/Kg	✱	09/02/21 18:26	09/03/21 09:01	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 042_LB-47-15-16

Lab Sample ID: 460-241982-5

Date Collected: 08/31/21 11:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.9

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	7.9	U	7.9	0.93	ug/Kg	☆	09/02/21 18:26	09/03/21 09:01	1
Heptachlor epoxide	7.9	U	7.9	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 09:01	1
Methoxychlor	7.9	U	7.9	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 09:01	1
Toxaphene	79	U	79	28	ug/Kg	☆	09/02/21 18:26	09/03/21 09:01	1
cis-Chlordane	7.9	U	7.9	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 09:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		10 - 150	09/02/21 18:26	09/03/21 09:01	1
DCB Decachlorobiphenyl	87		10 - 150	09/02/21 18:26	09/03/21 09:01	1
Tetrachloro-m-xylene	85		10 - 133	09/02/21 18:26	09/03/21 09:01	1
Tetrachloro-m-xylene	80		10 - 133	09/02/21 18:26	09/03/21 09:01	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Aroclor 1221	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Aroclor 1232	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Aroclor 1242	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Aroclor 1248	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Aroclor 1254	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Aroclor 1260	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Aroclor-1262	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Aroclor 1268	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1
Polychlorinated biphenyls, Total	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 08:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		37 - 150	09/02/21 17:59	09/03/21 08:51	1
DCB Decachlorobiphenyl	79		37 - 150	09/02/21 17:59	09/03/21 08:51	1
Tetrachloro-m-xylene	74		54 - 150	09/02/21 17:59	09/03/21 08:51	1
Tetrachloro-m-xylene	70		54 - 150	09/02/21 17:59	09/03/21 08:51	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	☆	09/03/21 00:12	09/03/21 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	119		65 - 150	09/03/21 00:12	09/03/21 16:55	1
2,4-Dichlorophenylacetic acid	117		65 - 150	09/03/21 00:12	09/03/21 16:55	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluoroheptanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluorooctanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluorononanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluorodecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluorotridecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluorotetradecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluorobutanesulfonic acid	2.18	U	2.18	0.44	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluorohexanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1
Perfluorooctanesulfonic acid	0.30	J	0.65	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:14	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 042_LB-47-15-16

Lab Sample ID: 460-241982-5

Date Collected: 08/31/21 11:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.9

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.18	U	2.18	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
NMeFOSAA	2.18	U	2.18	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
Perfluoroheptanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
Perfluorodecanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
Perfluorooctanesulfonamide	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
Perfluorobutanoic acid	2.18	U	2.18	0.87	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
Perfluoroundecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
Perfluorododecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
6:2 Fluorotelomer sulfonic acid	2.18	U	2.18	0.65	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
8:2 Fluorotelomer sulfonic acid	3.27	U	3.27	0.65	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1
Perfluoropentanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/05/21 23:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	92		10 - 178	09/03/21 08:39	09/05/21 23:14	1
M2-6:2 FTS	96		10 - 182	09/03/21 08:39	09/05/21 23:14	1
13C5 PFHxA	87		11 - 138	09/03/21 08:39	09/05/21 23:14	1
13C4 PFHpA	96		15 - 139	09/03/21 08:39	09/05/21 23:14	1
13C8 PFOA	94		21 - 133	09/03/21 08:39	09/05/21 23:14	1
13C9 PFNA	91		15 - 145	09/03/21 08:39	09/05/21 23:14	1
13C6 PFDA	93		21 - 134	09/03/21 08:39	09/05/21 23:14	1
13C7 PFUnA	96		15 - 138	09/03/21 08:39	09/05/21 23:14	1
13C2-PFDoDA	89		28 - 126	09/03/21 08:39	09/05/21 23:14	1
13C2 PFTeDA	86		10 - 138	09/03/21 08:39	09/05/21 23:14	1
13C3 PFBS	105		23 - 130	09/03/21 08:39	09/05/21 23:14	1
13C3 PFHxS	93		24 - 136	09/03/21 08:39	09/05/21 23:14	1
13C8 PFOS	90		31 - 130	09/03/21 08:39	09/05/21 23:14	1
d3-NMeFOSAA	77		10 - 172	09/03/21 08:39	09/05/21 23:14	1
d5-NEtFOSAA	82		10 - 176	09/03/21 08:39	09/05/21 23:14	1
13C8 FOSA	86		25 - 135	09/03/21 08:39	09/05/21 23:14	1
13C4 PFBA	87		12 - 137	09/03/21 08:39	09/05/21 23:14	1
13C5 PFPeA	90		12 - 135	09/03/21 08:39	09/05/21 23:14	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.10	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Arsenic	0.80	J	1.2	0.12	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Barium	11.6		2.4	0.17	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Beryllium	0.16	J	0.47	0.067	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Chromium	8.4		2.4	0.20	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Copper	6.2		2.4	0.26	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Manganese	95.7		4.7	0.47	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Nickel	6.7		2.4	0.23	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Lead	2.7		0.71	0.24	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1
Zinc	12.0		9.4	2.7	mg/Kg	✱	09/08/21 04:22	09/08/21 11:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0046	mg/Kg	✱	09/03/21 03:44	09/03/21 08:10	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 042_LB-47-15-16

Lab Sample ID: 460-241982-5

Date Collected: 08/31/21 11:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	8.4		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	☆	09/07/21 14:44	09/08/21 14:45	1
Cyanide, Total	0.28	U	0.28	0.15	mg/Kg	☆	09/05/21 14:10	09/06/21 19:05	1
Percent Moisture	15.1		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	84.9		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 043_HS-2-8-10

Lab Sample ID: 460-241982-6

Date Collected: 08/31/21 11:45

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 81.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
2-Methylphenol	400	U	400	15	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Pentachlorophenol	320	U	320	83	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Naphthalene	400	U	400	7.0	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Acenaphthylene	400	U	400	4.1	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Acenaphthene	400	U	400	12	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Dibenzofuran	400	U	400	5.7	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Fluorene	400	U	400	5.5	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Hexachlorobenzene	40	U	40	19	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Phenanthrene	400	U	400	7.1	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Anthracene	400	U	400	12	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Fluoranthene	400	U	400	14	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Pyrene	400	U	400	10	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Benzo[a]anthracene	40	U	40	14	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Chrysene	400	U *	400	6.8	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Benzo[b]fluoranthene	40	U	40	10	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Benzo[k]fluoranthene	40	U	40	7.9	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1
1,4-Dioxane	40	U	40	35	ug/Kg	☆	09/02/21 11:09	09/02/21 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	60		11 - 104	09/02/21 11:09	09/02/21 22:38	1
Phenol-d5 (Surr)	66		15 - 100	09/02/21 11:09	09/02/21 22:38	1
Terphenyl-d14 (Surr)	67		12 - 126	09/02/21 11:09	09/02/21 22:38	1
2,4,6-Tribromophenol (Surr)	54		10 - 123	09/02/21 11:09	09/02/21 22:38	1
2-Fluorophenol (Surr)	65		10 - 105	09/02/21 11:09	09/02/21 22:38	1
2-Fluorobiphenyl	56		14 - 103	09/02/21 11:09	09/02/21 22:38	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.2	U	8.2	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
4,4'-DDE	8.2	U	8.2	0.96	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
4,4'-DDT	8.2	U	8.2	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Aldrin	8.2	U	8.2	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 043_HS-2-8-10

Lab Sample ID: 460-241982-6

Date Collected: 08/31/21 11:45

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 81.9

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	2.4	U	2.4	0.83	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
beta-BHC	2.4	U	2.4	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Chlordane (technical)	82	U	82	20	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Endosulfan I	8.2	U	8.2	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Endosulfan II	8.2	U	8.2	2.1	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Endosulfan sulfate	8.2	U	8.2	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Endrin	8.2	U	8.2	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Endrin aldehyde	8.2	U	8.2	1.9	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Endrin ketone	8.2	U	8.2	1.6	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
gamma-BHC (Lindane)	2.4	U	2.4	0.76	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Heptachlor	8.2	U	8.2	0.96	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Heptachlor epoxide	8.2	U	8.2	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Methoxychlor	8.2	U	8.2	1.9	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
Toxaphene	82	U	82	30	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1
cis-Chlordane	8.2	U	8.2	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 06:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		10 - 150	09/02/21 18:26	09/03/21 06:29	1
DCB Decachlorobiphenyl	84		10 - 150	09/02/21 18:26	09/03/21 06:29	1
Tetrachloro-m-xylene	86		10 - 133	09/02/21 18:26	09/03/21 06:29	1
Tetrachloro-m-xylene	84		10 - 133	09/02/21 18:26	09/03/21 06:29	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Aroclor 1221	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Aroclor 1232	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Aroclor 1242	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Aroclor 1248	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Aroclor 1254	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Aroclor 1260	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Aroclor-1262	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Aroclor 1268	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1
Polychlorinated biphenyls, Total	82	U	82	22	ug/Kg	☆	09/02/21 17:59	09/03/21 09:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		37 - 150	09/02/21 17:59	09/03/21 09:43	1
DCB Decachlorobiphenyl	101		37 - 150	09/02/21 17:59	09/03/21 09:43	1
Tetrachloro-m-xylene	96		54 - 150	09/02/21 17:59	09/03/21 09:43	1
Tetrachloro-m-xylene	90		54 - 150	09/02/21 17:59	09/03/21 09:43	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	41	U	41	4.2	ug/Kg	☆	09/03/21 00:12	09/03/21 19:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	107		65 - 150	09/03/21 00:12	09/03/21 19:38	1
2,4-Dichlorophenylacetic acid	106		65 - 150	09/03/21 00:12	09/03/21 19:38	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 043_HS-2-8-10

Lab Sample ID: 460-241982-6

Date Collected: 08/31/21 11:45

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 81.9

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorooctanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorobutanesulfonic acid	2.22	U	2.22	0.44	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorooctanesulfonic acid	0.35	J	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
NEtFOSAA	2.22	U	2.22	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
NMeFOSAA	2.22	U	2.22	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorobutanoic acid	2.22	U	2.22	0.89	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
6:2 Fluorotelomer sulfonic acid	2.22	U	2.22	0.67	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
8:2 Fluorotelomer sulfonic acid	3.33	U	3.33	0.67	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/05/21 23:58	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	108		10 - 178	09/03/21 08:39	09/05/21 23:58	1
M2-6:2 FTS	111		10 - 182	09/03/21 08:39	09/05/21 23:58	1
13C5 PFHxA	108		11 - 138	09/03/21 08:39	09/05/21 23:58	1
13C4 PFHpA	109		15 - 139	09/03/21 08:39	09/05/21 23:58	1
13C8 PFOA	110		21 - 133	09/03/21 08:39	09/05/21 23:58	1
13C9 PFNA	106		15 - 145	09/03/21 08:39	09/05/21 23:58	1
13C6 PFDA	107		21 - 134	09/03/21 08:39	09/05/21 23:58	1
13C7 PFUnA	108		15 - 138	09/03/21 08:39	09/05/21 23:58	1
13C2-PFDoDA	104		28 - 126	09/03/21 08:39	09/05/21 23:58	1
13C2 PFTeDA	99		10 - 138	09/03/21 08:39	09/05/21 23:58	1
13C3 PFBS	110		23 - 130	09/03/21 08:39	09/05/21 23:58	1
13C3 PFHxS	111		24 - 136	09/03/21 08:39	09/05/21 23:58	1
13C8 PFOS	106		31 - 130	09/03/21 08:39	09/05/21 23:58	1
d3-NMeFOSAA	66		10 - 172	09/03/21 08:39	09/05/21 23:58	1
d5-NEtFOSAA	71		10 - 176	09/03/21 08:39	09/05/21 23:58	1
13C8 FOSA	99		25 - 135	09/03/21 08:39	09/05/21 23:58	1
13C4 PFBA	103		12 - 137	09/03/21 08:39	09/05/21 23:58	1
13C5 PFPeA	107		12 - 135	09/03/21 08:39	09/05/21 23:58	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.10	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Arsenic	1.5		1.2	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Barium	14.8		2.3	0.17	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Beryllium	0.31	J	0.46	0.066	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Chromium	9.6		2.3	0.20	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 043_HS-2-8-10

Lab Sample ID: 460-241982-6

Date Collected: 08/31/21 11:45

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 81.9

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	7.5		2.3	0.25	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Manganese	167		4.6	0.46	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Nickel	10.2		2.3	0.22	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Lead	4.7		0.69	0.23	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Selenium	1.4	U	1.4	0.14	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1
Zinc	21.0		9.2	2.6	mg/Kg	☆	09/08/21 04:22	09/08/21 12:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	U	0.019	0.0044	mg/Kg	☆	09/03/21 03:44	09/03/21 08:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.6		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	☆	09/07/21 14:44	09/08/21 14:45	1
Cyanide, Total	0.27	U	0.27	0.15	mg/Kg	☆	09/05/21 14:10	09/06/21 19:11	1
Percent Moisture	18.1		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	81.9		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 044_HS-2-10-12

Lab Sample ID: 460-241982-7

Date Collected: 08/31/21 11:55

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Pentachlorophenol	310	U	310	79	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Naphthalene	380	U	380	6.7	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Acenaphthylene	380	U	380	3.9	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Acenaphthene	380	U	380	11	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Dibenzofuran	380	U	380	5.4	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Fluorene	380	U	380	5.2	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Phenanthrene	380	U	380	6.8	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Anthracene	380	U	380	12	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Fluoranthene	380	U	380	13	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Pyrene	380	U	380	9.6	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Benzo[a]anthracene	38	U	38	13	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Chrysene	380	U *	380	6.5	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Benzo[b]fluoranthene	38	U	38	10	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Benzo[k]fluoranthene	38	U	38	7.6	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Benzo[a]pyrene	38	U	38	10	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Indeno[1,2,3-cd]pyrene	38	U	38	15	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Dibenz(a,h)anthracene	38	U	38	17	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
Benzo[g,h,i]perylene	380	U	380	11	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1
1,4-Dioxane	38	U	38	34	ug/Kg	☆	09/02/21 11:09	09/02/21 23:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	60		11 - 104	09/02/21 11:09	09/02/21 23:02	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 044_HS-2-10-12

Lab Sample ID: 460-241982-7

Date Collected: 08/31/21 11:55

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	65		15 - 100	09/02/21 11:09	09/02/21 23:02	1
Terphenyl-d14 (Surr)	64		12 - 126	09/02/21 11:09	09/02/21 23:02	1
2,4,6-Tribromophenol (Surr)	52		10 - 123	09/02/21 11:09	09/02/21 23:02	1
2-Fluorophenol (Surr)	65		10 - 105	09/02/21 11:09	09/02/21 23:02	1
2-Fluorobiphenyl	53		14 - 103	09/02/21 11:09	09/02/21 23:02	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
4,4'-DDE	7.8	U	7.8	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
4,4'-DDT	7.8	U	7.8	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Chlordane (technical)	78	U	78	19	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Endrin	7.8	U	7.8	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Heptachlor	7.8	U	7.8	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
Toxaphene	78	U	78	28	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 150	09/02/21 18:26	09/03/21 06:41	1
DCB Decachlorobiphenyl	80		10 - 150	09/02/21 18:26	09/03/21 06:41	1
Tetrachloro-m-xylene	78		10 - 133	09/02/21 18:26	09/03/21 06:41	1
Tetrachloro-m-xylene	78		10 - 133	09/02/21 18:26	09/03/21 06:41	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Aroclor 1221	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Aroclor 1232	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Aroclor 1242	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Aroclor 1248	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Aroclor 1254	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Aroclor 1260	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Aroclor-1262	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Aroclor 1268	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 044_HS-2-10-12

Lab Sample ID: 460-241982-7

Date Collected: 08/31/21 11:55

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		37 - 150	09/02/21 17:59	09/03/21 10:00	1
DCB Decachlorobiphenyl	94		37 - 150	09/02/21 17:59	09/03/21 10:00	1
Tetrachloro-m-xylene	88		54 - 150	09/02/21 17:59	09/03/21 10:00	1
Tetrachloro-m-xylene	83		54 - 150	09/02/21 17:59	09/03/21 10:00	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.0	ug/Kg	☆	09/03/21 00:12	09/03/21 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	117		65 - 150	09/03/21 00:12	09/03/21 19:51	1
2,4-Dichlorophenylacetic acid	119		65 - 150	09/03/21 00:12	09/03/21 19:51	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluoroheptanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorooctanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorononanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorodecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorotridecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorotetradecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorobutanesulfonic acid	2.28	U	2.28	0.46	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorohexanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorooctanesulfonic acid	0.23	J	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
NEtFOSAA	2.28	U	2.28	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
NMeFOSAA	2.28	U	2.28	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluoroheptanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorodecanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorooctanesulfonamide	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorobutanoic acid	2.28	U	2.28	0.91	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluoroundecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluorododecanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
6:2 Fluorotelomer sulfonic acid	2.28	U	2.28	0.68	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
8:2 Fluorotelomer sulfonic acid	3.42	U	3.42	0.68	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1
Perfluoropentanoic acid	0.68	U	0.68	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 00:09	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	106		10 - 178	09/03/21 08:39	09/06/21 00:09	1
M2-6:2 FTS	110		10 - 182	09/03/21 08:39	09/06/21 00:09	1
13C5 PFHxA	100		11 - 138	09/03/21 08:39	09/06/21 00:09	1
13C4 PFHpA	108		15 - 139	09/03/21 08:39	09/06/21 00:09	1
13C8 PFOA	105		21 - 133	09/03/21 08:39	09/06/21 00:09	1
13C9 PFNA	99		15 - 145	09/03/21 08:39	09/06/21 00:09	1
13C6 PFDA	101		21 - 134	09/03/21 08:39	09/06/21 00:09	1
13C7 PFUnA	106		15 - 138	09/03/21 08:39	09/06/21 00:09	1
13C2-PFDoDA	107		28 - 126	09/03/21 08:39	09/06/21 00:09	1
13C2 PFTeDA	104		10 - 138	09/03/21 08:39	09/06/21 00:09	1
13C3 PFBS	115		23 - 130	09/03/21 08:39	09/06/21 00:09	1
13C3 PFHxS	106		24 - 136	09/03/21 08:39	09/06/21 00:09	1
13C8 PFOS	102		31 - 130	09/03/21 08:39	09/06/21 00:09	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 044_HS-2-10-12

Lab Sample ID: 460-241982-7

Date Collected: 08/31/21 11:55

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.9

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	86		10 - 172	09/03/21 08:39	09/06/21 00:09	1
d5-NEtFOSAA	97		10 - 176	09/03/21 08:39	09/06/21 00:09	1
13C8 FOSA	101		25 - 135	09/03/21 08:39	09/06/21 00:09	1
13C4 PFBA	98		12 - 137	09/03/21 08:39	09/06/21 00:09	1
13C5 PFPeA	103		12 - 135	09/03/21 08:39	09/06/21 00:09	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.10	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Arsenic	1.0	J	1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Barium	7.6		2.2	0.16	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Beryllium	0.22	J	0.45	0.064	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Chromium	7.7		2.2	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Copper	4.8		2.2	0.25	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Manganese	106		4.5	0.45	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Nickel	6.3		2.2	0.22	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Lead	2.9		0.67	0.22	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Selenium	1.4	U	1.4	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1
Zinc	11.7		9.0	2.6	mg/Kg	☆	09/08/21 04:22	09/08/21 12:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	U	0.019	0.0044	mg/Kg	☆	09/03/21 03:44	09/03/21 08:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	7.7		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	☆	09/07/21 14:44	09/08/21 14:45	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	☆	09/05/21 14:10	09/06/21 19:15	1
Percent Moisture	14.1		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	85.9		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 045_LB-27-6-8

Lab Sample ID: 460-241982-8

Date Collected: 08/31/21 12:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Pentachlorophenol	310	U	310	78	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Naphthalene	380	U	380	6.6	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Acenaphthylene	380	U	380	3.8	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Acenaphthene	380	U	380	11	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Dibenzofuran	380	U	380	5.4	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Fluorene	380	U	380	5.2	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Phenanthrene	16	J	380	6.7	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Anthracene	380	U	380	12	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 045_LB-27-6-8

Lab Sample ID: 460-241982-8

Date Collected: 08/31/21 12:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	17	J	380	13	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Pyrene	16	J	380	9.5	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Benzo[a]anthracene	14	J	38	13	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Chrysene	8.4	J *	380	6.4	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Benzo[b]fluoranthene	38	U	38	9.9	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Benzo[k]fluoranthene	38	U	38	7.5	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Benzo[a]pyrene	38	U	38	10	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Indeno[1,2,3-cd]pyrene	38	U	38	15	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Dibenz(a,h)anthracene	38	U	38	17	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
Benzo[g,h,i]perylene	380	U	380	11	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1
1,4-Dioxane	38	U	38	33	ug/Kg	☆	09/02/21 11:09	09/02/21 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		11 - 104	09/02/21 11:09	09/02/21 23:26	1
Phenol-d5 (Surr)	69		15 - 100	09/02/21 11:09	09/02/21 23:26	1
Terphenyl-d14 (Surr)	69		12 - 126	09/02/21 11:09	09/02/21 23:26	1
2,4,6-Tribromophenol (Surr)	56		10 - 123	09/02/21 11:09	09/02/21 23:26	1
2-Fluorophenol (Surr)	67		10 - 105	09/02/21 11:09	09/02/21 23:26	1
2-Fluorobiphenyl	56		14 - 103	09/02/21 11:09	09/02/21 23:26	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.7	U	7.7	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
4,4'-DDE	7.7	U	7.7	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
4,4'-DDT	7.7	U	7.7	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
alpha-BHC	2.3	U	2.3	0.78	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
beta-BHC	2.3	U	2.3	0.86	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Chlordane (technical)	77	U	77	19	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Endosulfan II	7.7	U	7.7	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Endosulfan sulfate	7.7	U	7.7	0.97	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Endrin	7.7	U	7.7	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
gamma-BHC (Lindane)	2.3	U	2.3	0.71	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Heptachlor	7.7	U	7.7	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Heptachlor epoxide	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Methoxychlor	7.7	U	7.7	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
Toxaphene	77	U	77	28	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 06:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		10 - 150	09/02/21 18:26	09/03/21 06:53	1
DCB Decachlorobiphenyl	79		10 - 150	09/02/21 18:26	09/03/21 06:53	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:26	09/03/21 06:53	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:26	09/03/21 06:53	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 045_LB-27-6-8

Lab Sample ID: 460-241982-8

Date Collected: 08/31/21 12:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Aroclor 1221	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Aroclor 1232	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Aroclor 1242	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Aroclor 1248	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Aroclor 1254	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Aroclor 1260	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Aroclor-1262	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Aroclor 1268	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1
Polychlorinated biphenyls, Total	77	U	77	21	ug/Kg	✱	09/02/21 17:59	09/03/21 10:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		37 - 150	09/02/21 17:59	09/03/21 10:17	1
DCB Decachlorobiphenyl	95		37 - 150	09/02/21 17:59	09/03/21 10:17	1
Tetrachloro-m-xylene	88		54 - 150	09/02/21 17:59	09/03/21 10:17	1
Tetrachloro-m-xylene	84		54 - 150	09/02/21 17:59	09/03/21 10:17	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	✱	09/03/21 00:12	09/03/21 20:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	110		65 - 150	09/03/21 00:12	09/03/21 20:05	1
2,4-Dichlorophenylacetic acid	110		65 - 150	09/03/21 00:12	09/03/21 20:05	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluoroheptanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorooctanoic acid	0.50	J	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorononanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorodecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorotridecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorotetradecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorobutanesulfonic acid	2.18	U	2.18	0.44	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorohexanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorooctanesulfonic acid	0.90		0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
NEtFOSAA	2.18	U	2.18	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
NMeFOSAA	2.18	U	2.18	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluoroheptanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorodecanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorooctanesulfonamide	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorobutanoic acid	2.18	U	2.18	0.87	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluoroundecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluorododecanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
6:2 Fluorotelomer sulfonic acid	2.18	U	2.18	0.65	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
8:2 Fluorotelomer sulfonic acid	3.26	U	3.26	0.65	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1
Perfluoropentanoic acid	0.65	U	0.65	0.22	ug/Kg	✱	09/03/21 08:39	09/06/21 00:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	108		10 - 178	09/03/21 08:39	09/06/21 00:20	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 045_LB-27-6-8

Lab Sample ID: 460-241982-8

Date Collected: 08/31/21 12:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.7

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	105		10 - 182	09/03/21 08:39	09/06/21 00:20	1
13C5 PFHxA	95		11 - 138	09/03/21 08:39	09/06/21 00:20	1
13C4 PFHpA	94		15 - 139	09/03/21 08:39	09/06/21 00:20	1
13C8 PFOA	99		21 - 133	09/03/21 08:39	09/06/21 00:20	1
13C9 PFNA	97		15 - 145	09/03/21 08:39	09/06/21 00:20	1
13C6 PFDA	97		21 - 134	09/03/21 08:39	09/06/21 00:20	1
13C7 PFUnA	100		15 - 138	09/03/21 08:39	09/06/21 00:20	1
13C2-PFDoDA	102		28 - 126	09/03/21 08:39	09/06/21 00:20	1
13C2 PFTeDA	100		10 - 138	09/03/21 08:39	09/06/21 00:20	1
13C3 PFBS	112		23 - 130	09/03/21 08:39	09/06/21 00:20	1
13C3 PFHxS	97		24 - 136	09/03/21 08:39	09/06/21 00:20	1
13C8 PFOS	102		31 - 130	09/03/21 08:39	09/06/21 00:20	1
d3-NMeFOSAA	40		10 - 172	09/03/21 08:39	09/06/21 00:20	1
d5-NEtFOSAA	50		10 - 176	09/03/21 08:39	09/06/21 00:20	1
13C8 FOSA	101		25 - 135	09/03/21 08:39	09/06/21 00:20	1
13C4 PFBA	94		12 - 137	09/03/21 08:39	09/06/21 00:20	1
13C5 PFPeA	101		12 - 135	09/03/21 08:39	09/06/21 00:20	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.094	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Arsenic	1.7		1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Barium	43.9		2.1	0.15	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Beryllium	0.44		0.42	0.060	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Cadmium	0.22	J	1.1	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Chromium	9.5		2.1	0.18	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Copper	8.8		2.1	0.23	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Manganese	354		4.2	0.43	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Nickel	12.4		2.1	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Lead	22.3		0.63	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Selenium	0.24	J	1.3	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1
Zinc	525		8.5	2.4	mg/Kg	☆	09/08/21 04:22	09/08/21 12:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.058		0.019	0.0045	mg/Kg	☆	09/03/21 03:44	09/03/21 08:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.5		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.3	U	2.3	0.97	mg/Kg	☆	09/07/21 14:44	09/08/21 14:45	1
Cyanide, Total	0.25	U	0.25	0.13	mg/Kg	☆	09/05/21 14:10	09/06/21 19:16	1
Percent Moisture	13.3		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	86.7		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 046_LB-27-15-16

Lab Sample ID: 460-241982-9

Date Collected: 08/31/21 12:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Pentachlorophenol	300	U	300	78	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Naphthalene	380	U	380	6.5	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Acenaphthylene	380	U	380	3.8	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Acenaphthene	380	U	380	11	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Dibenzofuran	380	U	380	5.3	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Fluorene	380	U	380	5.1	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Phenanthrene	380	U	380	6.6	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Anthracene	380	U	380	12	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Fluoranthene	380	U	380	13	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Pyrene	380	U	380	9.4	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Benzo[a]anthracene	38	U	38	13	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Chrysene	380	U	380	6.4	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Benzo[b]fluoranthene	38	U	38	9.8	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Benzo[k]fluoranthene	38	U	38	7.4	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Benzo[a]pyrene	38	U	38	10	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Indeno[1,2,3-cd]pyrene	38	U	38	15	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Dibenz(a,h)anthracene	38	U	38	16	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
Benzo[g,h,i]perylene	380	U	380	11	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1
1,4-Dioxane	38	U	38	33	ug/Kg	☆	09/02/21 11:14	09/02/21 20:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	69		11 - 104	09/02/21 11:14	09/02/21 20:41	1
Phenol-d5 (Surr)	62		15 - 100	09/02/21 11:14	09/02/21 20:41	1
Terphenyl-d14 (Surr)	75		12 - 126	09/02/21 11:14	09/02/21 20:41	1
2,4,6-Tribromophenol (Surr)	58		10 - 123	09/02/21 11:14	09/02/21 20:41	1
2-Fluorophenol (Surr)	66		10 - 105	09/02/21 11:14	09/02/21 20:41	1
2-Fluorobiphenyl	59		14 - 103	09/02/21 11:14	09/02/21 20:41	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.7	U	7.7	1.3	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
4,4'-DDE	7.7	U	7.7	0.90	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
4,4'-DDT	7.7	U	7.7	1.4	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
alpha-BHC	2.3	U	2.3	0.78	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
beta-BHC	2.3	U	2.3	0.86	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Chlordane (technical)	77	U	77	19	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Dieldrin	2.3	U	2.3	0.99	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Endosulfan II	7.7	U	7.7	2.0	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Endosulfan sulfate	7.7	U	7.7	0.96	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Endrin	7.7	U	7.7	1.1	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
gamma-BHC (Lindane)	2.3	U	2.3	0.71	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 046_LB-27-15-16

Lab Sample ID: 460-241982-9

Date Collected: 08/31/21 12:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.4

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	7.7	U	7.7	0.90	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Heptachlor epoxide	7.7	U	7.7	1.1	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Methoxychlor	7.7	U	7.7	1.7	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
Toxaphene	77	U	77	28	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:28	09/03/21 05:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 150	09/02/21 18:28	09/03/21 05:40	1
DCB Decachlorobiphenyl	89		10 - 150	09/02/21 18:28	09/03/21 05:40	1
Tetrachloro-m-xylene	75		10 - 133	09/02/21 18:28	09/03/21 05:40	1
Tetrachloro-m-xylene	73		10 - 133	09/02/21 18:28	09/03/21 05:40	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Aroclor 1221	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Aroclor 1232	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Aroclor 1242	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Aroclor 1248	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Aroclor 1254	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Aroclor 1260	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Aroclor-1262	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Aroclor 1268	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1
Polychlorinated biphenyls, Total	77	U	77	20	ug/Kg	☆	09/02/21 18:02	09/03/21 08:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		37 - 150	09/02/21 18:02	09/03/21 08:21	1
DCB Decachlorobiphenyl	81		37 - 150	09/02/21 18:02	09/03/21 08:21	1
Tetrachloro-m-xylene	87		54 - 150	09/02/21 18:02	09/03/21 08:21	1
Tetrachloro-m-xylene	85		54 - 150	09/02/21 18:02	09/03/21 08:21	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	☆	09/03/21 00:14	09/07/21 11:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	122		65 - 150	09/03/21 00:14	09/07/21 11:32	1
2,4-Dichlorophenylacetic acid	107		65 - 150	09/03/21 00:14	09/07/21 11:32	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluoroheptanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluorooctanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluorononanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluorodecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluorotridecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluorotetradecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluorobutanesulfonic acid	2.29	U	2.29	0.46	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluorohexanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1
Perfluorooctanesulfonic acid	0.23	J	0.69	0.23	ug/Kg	☆	09/03/21 11:51	09/05/21 18:04	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 046_LB-27-15-16

Lab Sample ID: 460-241982-9

Date Collected: 08/31/21 12:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	2.29	U	2.29	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
NMeFOSAA	2.29	U	2.29	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
Perfluoroheptanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
Perfluorodecanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
Perfluorooctanesulfonamide	0.69	U	0.69	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
Perfluorobutanoic acid	2.29	U	2.29	0.91	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
Perfluoroundecanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
Perfluorododecanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
6:2 Fluorotelomer sulfonic acid	2.29	U	2.29	0.69	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
8:2 Fluorotelomer sulfonic acid	3.43	U	3.43	0.69	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
Perfluoropentanoic acid	0.69	U	0.69	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 18:04	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	103		10 - 178				09/03/21 11:51	09/05/21 18:04	1
M2-6:2 FTS	113		10 - 182				09/03/21 11:51	09/05/21 18:04	1
13C5 PFHxA	99		11 - 138				09/03/21 11:51	09/05/21 18:04	1
13C4 PFHpA	104		15 - 139				09/03/21 11:51	09/05/21 18:04	1
13C8 PFOA	115		21 - 133				09/03/21 11:51	09/05/21 18:04	1
13C9 PFNA	106		15 - 145				09/03/21 11:51	09/05/21 18:04	1
13C6 PFDA	108		21 - 134				09/03/21 11:51	09/05/21 18:04	1
13C7 PFUnA	101		15 - 138				09/03/21 11:51	09/05/21 18:04	1
13C2-PFDoDA	107		28 - 126				09/03/21 11:51	09/05/21 18:04	1
13C2 PFTeDA	99		10 - 138				09/03/21 11:51	09/05/21 18:04	1
13C3 PFBS	116		23 - 130				09/03/21 11:51	09/05/21 18:04	1
13C3 PFHxS	107		24 - 136				09/03/21 11:51	09/05/21 18:04	1
13C8 PFOS	104		31 - 130				09/03/21 11:51	09/05/21 18:04	1
d3-NMeFOSAA	49		10 - 172				09/03/21 11:51	09/05/21 18:04	1
d5-NEtFOSAA	55		10 - 176				09/03/21 11:51	09/05/21 18:04	1
13C8 FOSA	102		25 - 135				09/03/21 11:51	09/05/21 18:04	1
13C4 PFBA	100		12 - 137				09/03/21 11:51	09/05/21 18:04	1
13C5 PFPeA	98		12 - 135				09/03/21 11:51	09/05/21 18:04	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.10	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Arsenic	1.1		1.1	0.11	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Barium	16.4		2.3	0.17	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Beryllium	0.23	J	0.46	0.065	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Chromium	11.6		2.3	0.20	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Copper	6.6		2.3	0.25	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Manganese	76.0		4.6	0.46	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Nickel	6.8		2.3	0.22	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Lead	3.5		0.69	0.23	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1
Zinc	16.2		9.1	2.6	mg/Kg	✱	09/09/21 04:07	09/09/21 10:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0041	mg/Kg	✱	09/03/21 04:02	09/03/21 09:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 046_LB-27-15-16

Lab Sample ID: 460-241982-9

Date Collected: 08/31/21 12:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.6		2.0	2.0	mg/Kg			09/07/21 07:25	1
Cr (VI)	2.3	U	2.3	0.97	mg/Kg	✱	09/16/21 18:20	09/17/21 21:55	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	09/05/21 14:10	09/06/21 19:18	1
Percent Moisture	12.6		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	87.4		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 047_HS-1-8-10

Lab Sample ID: 460-241982-10

Date Collected: 08/31/21 13:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
2-Methylphenol	390	U	390	15	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Pentachlorophenol	310	U	310	80	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Naphthalene	150	J	390	6.8	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Acenaphthylene	9.5	J	390	3.9	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Acenaphthene	39	J	390	11	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Dibenzofuran	26	J	390	5.5	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Fluorene	31	J	390	5.3	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Hexachlorobenzene	39	U	39	19	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Phenanthrene	380	J	390	6.9	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Anthracene	58	J	390	12	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Fluoranthene	440		390	14	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Pyrene	490		390	9.7	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Benzo[a]anthracene	200		39	14	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Chrysene	220	J	390	6.6	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Benzo[b]fluoranthene	280		39	10	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Benzo[k]fluoranthene	88		39	7.7	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Benzo[a]pyrene	210		39	10	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Indeno[1,2,3-cd]pyrene	120		39	15	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Dibenz(a,h)anthracene	30	J	39	17	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
Benzo[g,h,i]perylene	110	J	390	12	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1
1,4-Dioxane	39	U	39	34	ug/Kg	✱	09/02/21 11:14	09/02/21 21:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		11 - 104	09/02/21 11:14	09/02/21 21:48	1
Phenol-d5 (Surr)	66		15 - 100	09/02/21 11:14	09/02/21 21:48	1
Terphenyl-d14 (Surr)	80		12 - 126	09/02/21 11:14	09/02/21 21:48	1
2,4,6-Tribromophenol (Surr)	58		10 - 123	09/02/21 11:14	09/02/21 21:48	1
2-Fluorophenol (Surr)	65		10 - 105	09/02/21 11:14	09/02/21 21:48	1
2-Fluorobiphenyl	60		14 - 103	09/02/21 11:14	09/02/21 21:48	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.9	U	7.9	1.3	ug/Kg	✱	09/02/21 18:26	09/03/21 07:06	1
4,4'-DDE	7.9	U	7.9	0.93	ug/Kg	✱	09/02/21 18:26	09/03/21 07:06	1
4,4'-DDT	7.9	U	7.9	1.5	ug/Kg	✱	09/02/21 18:26	09/03/21 07:06	1
Aldrin	7.9	U	7.9	1.2	ug/Kg	✱	09/02/21 18:26	09/03/21 07:06	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 047_HS-1-8-10

Lab Sample ID: 460-241982-10

Date Collected: 08/31/21 13:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	2.4	U	2.4	0.80	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
beta-BHC	2.4	U	2.4	0.89	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Chlordane (technical)	79	U	79	19	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
delta-BHC	2.4	U	2.4	0.48	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Endosulfan I	7.9	U	7.9	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Endosulfan II	7.9	U	7.9	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Endosulfan sulfate	7.9	U	7.9	0.99	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Endrin	7.9	U	7.9	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Endrin aldehyde	7.9	U	7.9	1.9	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Endrin ketone	7.9	U	7.9	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
gamma-BHC (Lindane)	2.4	U	2.4	0.73	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Heptachlor	7.9	U	7.9	0.93	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Heptachlor epoxide	7.9	U	7.9	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Methoxychlor	7.9	U	7.9	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
Toxaphene	79	U	79	29	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1
cis-Chlordane	7.9	U	7.9	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 07:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		10 - 150	09/02/21 18:26	09/03/21 07:06	1
DCB Decachlorobiphenyl	76		10 - 150	09/02/21 18:26	09/03/21 07:06	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:26	09/03/21 07:06	1
Tetrachloro-m-xylene	77		10 - 133	09/02/21 18:26	09/03/21 07:06	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Aroclor 1221	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Aroclor 1232	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Aroclor 1242	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Aroclor 1248	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Aroclor 1254	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Aroclor 1260	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Aroclor-1262	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Aroclor 1268	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1
Polychlorinated biphenyls, Total	79	U	79	21	ug/Kg	☆	09/02/21 17:59	09/03/21 10:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		37 - 150	09/02/21 17:59	09/03/21 10:34	1
DCB Decachlorobiphenyl	92		37 - 150	09/02/21 17:59	09/03/21 10:34	1
Tetrachloro-m-xylene	86		54 - 150	09/02/21 17:59	09/03/21 10:34	1
Tetrachloro-m-xylene	82		54 - 150	09/02/21 17:59	09/03/21 10:34	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	☆	09/03/21 00:12	09/03/21 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	120		65 - 150	09/03/21 00:12	09/03/21 20:18	1
2,4-Dichlorophenylacetic acid	120		65 - 150	09/03/21 00:12	09/03/21 20:18	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 047_HS-1-8-10

Lab Sample ID: 460-241982-10

Date Collected: 08/31/21 13:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.7

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorooctanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorobutanesulfonic acid	2.25	U	2.25	0.45	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorooctanesulfonic acid	0.25	J	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
NEtFOSAA	2.25	U	2.25	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
NMeFOSAA	2.25	U	2.25	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorobutanoic acid	2.25	U	2.25	0.90	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
6:2 Fluorotelomer sulfonic acid	2.25	U	2.25	0.67	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
8:2 Fluorotelomer sulfonic acid	3.37	U	3.37	0.67	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	97		10 - 178	09/03/21 08:39	09/06/21 00:31	1
M2-6:2 FTS	102		10 - 182	09/03/21 08:39	09/06/21 00:31	1
13C5 PFHxA	91		11 - 138	09/03/21 08:39	09/06/21 00:31	1
13C4 PFHpA	98		15 - 139	09/03/21 08:39	09/06/21 00:31	1
13C8 PFOA	106		21 - 133	09/03/21 08:39	09/06/21 00:31	1
13C9 PFNA	90		15 - 145	09/03/21 08:39	09/06/21 00:31	1
13C6 PFDA	101		21 - 134	09/03/21 08:39	09/06/21 00:31	1
13C7 PFUnA	100		15 - 138	09/03/21 08:39	09/06/21 00:31	1
13C2-PFDoDA	96		28 - 126	09/03/21 08:39	09/06/21 00:31	1
13C2 PFTeDA	97		10 - 138	09/03/21 08:39	09/06/21 00:31	1
13C3 PFBS	110		23 - 130	09/03/21 08:39	09/06/21 00:31	1
13C3 PFHxS	97		24 - 136	09/03/21 08:39	09/06/21 00:31	1
13C8 PFOS	95		31 - 130	09/03/21 08:39	09/06/21 00:31	1
d3-NMeFOSAA	80		10 - 172	09/03/21 08:39	09/06/21 00:31	1
d5-NEtFOSAA	86		10 - 176	09/03/21 08:39	09/06/21 00:31	1
13C8 FOSA	102		25 - 135	09/03/21 08:39	09/06/21 00:31	1
13C4 PFBA	93		12 - 137	09/03/21 08:39	09/06/21 00:31	1
13C5 PFPeA	104		12 - 135	09/03/21 08:39	09/06/21 00:31	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.20	J	1.1	0.098	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Arsenic	2.1		1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Barium	37.9		2.2	0.16	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Beryllium	0.38	J	0.44	0.063	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Chromium	12.0		2.2	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 047_HS-1-8-10

Lab Sample ID: 460-241982-10

Date Collected: 08/31/21 13:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.7

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	9.2		2.2	0.24	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Manganese	165		4.4	0.44	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Nickel	11.0		2.2	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Lead	23.1		0.66	0.22	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Selenium	0.26	J	1.4	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1
Zinc	33.4		8.8	2.5	mg/Kg	☆	09/08/21 04:22	09/08/21 12:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.018	0.0042	mg/Kg	☆	09/03/21 03:44	09/03/21 08:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.0		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	☆	09/07/21 14:44	09/08/21 14:45	1
Cyanide, Total	0.25	U	0.25	0.14	mg/Kg	☆	09/05/21 14:10	09/06/21 19:17	1
Percent Moisture	15.3		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	84.7		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 048_HS-1-10-12

Lab Sample ID: 460-241982-11

Date Collected: 08/31/21 13:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
2-Methylphenol	400	U	400	15	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Pentachlorophenol	320	U	320	82	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Naphthalene	10	J	400	6.9	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Acenaphthylene	400	U	400	4.0	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Acenaphthene	400	U	400	11	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Dibenzofuran	400	U	400	5.6	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Fluorene	400	U	400	5.4	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Hexachlorobenzene	40	U	40	19	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Phenanthrene	400	U	400	7.1	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Anthracene	400	U	400	12	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Fluoranthene	400	U	400	14	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Pyrene	400	U	400	10	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Benzo[a]anthracene	40	U	40	14	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Chrysene	400	U	400	6.8	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Benzo[b]fluoranthene	40	U	40	10	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Benzo[k]fluoranthene	40	U	40	7.9	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1
1,4-Dioxane	40	U	40	35	ug/Kg	☆	09/02/21 11:14	09/02/21 22:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		11 - 104	09/02/21 11:14	09/02/21 22:11	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 048_HS-1-10-12

Lab Sample ID: 460-241982-11

Date Collected: 08/31/21 13:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	60		15 - 100	09/02/21 11:14	09/02/21 22:11	1
Terphenyl-d14 (Surr)	78		12 - 126	09/02/21 11:14	09/02/21 22:11	1
2,4,6-Tribromophenol (Surr)	62		10 - 123	09/02/21 11:14	09/02/21 22:11	1
2-Fluorophenol (Surr)	63		10 - 105	09/02/21 11:14	09/02/21 22:11	1
2-Fluorobiphenyl	60		14 - 103	09/02/21 11:14	09/02/21 22:11	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.1	U	8.1	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
4,4'-DDE	8.1	U	8.1	0.96	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
4,4'-DDT	8.1	U	8.1	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
beta-BHC	2.4	U	2.4	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Chlordane (technical)	81	U	81	20	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Endosulfan II	8.1	U	8.1	2.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Endrin	8.1	U	8.1	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Heptachlor	8.1	U	8.1	0.96	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Methoxychlor	8.1	U	8.1	1.9	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
Toxaphene	81	U	81	29	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 07:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 150	09/02/21 18:26	09/03/21 07:18	1
DCB Decachlorobiphenyl	79		10 - 150	09/02/21 18:26	09/03/21 07:18	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:26	09/03/21 07:18	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:26	09/03/21 07:18	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Aroclor 1221	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Aroclor 1232	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Aroclor 1242	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Aroclor 1248	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Aroclor 1254	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Aroclor 1260	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Aroclor-1262	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Aroclor 1268	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1
Polychlorinated biphenyls, Total	81	U	81	22	ug/Kg	☆	09/02/21 17:59	09/03/21 10:51	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 048_HS-1-10-12

Lab Sample ID: 460-241982-11

Date Collected: 08/31/21 13:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		37 - 150	09/02/21 17:59	09/03/21 10:51	1
DCB Decachlorobiphenyl	89		37 - 150	09/02/21 17:59	09/03/21 10:51	1
Tetrachloro-m-xylene	80		54 - 150	09/02/21 17:59	09/03/21 10:51	1
Tetrachloro-m-xylene	79		54 - 150	09/02/21 17:59	09/03/21 10:51	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	☆	09/03/21 00:12	09/03/21 20:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	115		65 - 150	09/03/21 00:12	09/03/21 20:32	1
2,4-Dichlorophenylacetic acid	117		65 - 150	09/03/21 00:12	09/03/21 20:32	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorooctanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorobutanesulfonic acid	2.25	U	2.25	0.45	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorooctanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
NEtFOSAA	2.25	U	2.25	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
NMeFOSAA	2.25	U	2.25	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorobutanoic acid	2.25	U	2.25	0.90	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
6:2 Fluorotelomer sulfonic acid	2.25	U	2.25	0.67	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
8:2 Fluorotelomer sulfonic acid	3.37	U	3.37	0.67	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 00:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	91		10 - 178	09/03/21 08:39	09/06/21 00:42	1
M2-6:2 FTS	98		10 - 182	09/03/21 08:39	09/06/21 00:42	1
13C5 PFHxA	95		11 - 138	09/03/21 08:39	09/06/21 00:42	1
13C4 PFHpA	100		15 - 139	09/03/21 08:39	09/06/21 00:42	1
13C8 PFOA	96		21 - 133	09/03/21 08:39	09/06/21 00:42	1
13C9 PFNA	90		15 - 145	09/03/21 08:39	09/06/21 00:42	1
13C6 PFDA	96		21 - 134	09/03/21 08:39	09/06/21 00:42	1
13C7 PFUnA	96		15 - 138	09/03/21 08:39	09/06/21 00:42	1
13C2-PFDoDA	91		28 - 126	09/03/21 08:39	09/06/21 00:42	1
13C2 PFTeDA	92		10 - 138	09/03/21 08:39	09/06/21 00:42	1
13C3 PFBS	104		23 - 130	09/03/21 08:39	09/06/21 00:42	1
13C3 PFHxS	95		24 - 136	09/03/21 08:39	09/06/21 00:42	1
13C8 PFOS	95		31 - 130	09/03/21 08:39	09/06/21 00:42	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 048_HS-1-10-12

Lab Sample ID: 460-241982-11

Date Collected: 08/31/21 13:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	88		10 - 172	09/03/21 08:39	09/06/21 00:42	1
d5-NEtFOSAA	91		10 - 176	09/03/21 08:39	09/06/21 00:42	1
13C8 FOSA	85		25 - 135	09/03/21 08:39	09/06/21 00:42	1
13C4 PFBA	91		12 - 137	09/03/21 08:39	09/06/21 00:42	1
13C5 PFPeA	89		12 - 135	09/03/21 08:39	09/06/21 00:42	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.10	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Arsenic	2.0		1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Barium	17.9		2.3	0.16	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Beryllium	0.25	J	0.45	0.065	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Chromium	8.1		2.3	0.20	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Copper	4.9		2.3	0.25	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Manganese	68.5		4.5	0.46	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Nickel	7.3		2.3	0.22	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Lead	3.4		0.68	0.23	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Selenium	1.4	U	1.4	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1
Zinc	16.2		9.1	2.6	mg/Kg	☆	09/08/21 04:22	09/08/21 12:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0048	mg/Kg	☆	09/03/21 03:44	09/03/21 08:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	8.1		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	☆	09/07/21 14:44	09/08/21 14:45	1
Cyanide, Total	0.28	U	0.28	0.15	mg/Kg	☆	09/05/21 14:10	09/06/21 19:18	1
Percent Moisture	17.6		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	82.4		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 049_LB-31-5-7

Lab Sample ID: 460-241982-12

Date Collected: 08/31/21 15:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 93.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.99	U	0.99	0.23	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,1-Dichloroethane	0.99	U	0.99	0.20	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,1-Dichloroethene	0.99	U	0.99	0.22	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,2,4-Trimethylbenzene	0.99	U	0.99	0.24	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,2-Dichlorobenzene	0.99	U	0.99	0.36	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,2-Dichloroethane	0.99	U	0.99	0.29	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,3,5-Trimethylbenzene	0.99	U	0.99	0.31	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,3-Dichlorobenzene	0.99	U	0.99	0.36	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,4-Dichlorobenzene	0.99	U	0.99	0.22	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
1,4-Dioxane	20	U	20	9.1	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
2-Butanone (MEK)	4.9	U	4.9	0.36	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1
Acetone	5.9	U	5.9	5.6	ug/Kg	☆	09/02/21 07:53	09/02/21 22:28	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 049_LB-31-5-7

Lab Sample ID: 460-241982-12

Date Collected: 08/31/21 15:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 93.5

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.99	U	0.99	0.25	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Carbon tetrachloride	0.99	U	0.99	0.38	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Chlorobenzene	0.99	U	0.99	0.17	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Chloroform	0.99	U	0.99	0.96	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
cis-1,2-Dichloroethene	0.99	U	0.99	0.35	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Ethylbenzene	0.99	U	0.99	0.20	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Methyl tert-butyl ether	0.99	U	0.99	0.51	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
n-Butylbenzene	0.99	U	0.99	0.29	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
N-Propylbenzene	0.99	U *	0.99	0.17	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
sec-Butylbenzene	0.99	U	0.99	0.28	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
tert-Butylbenzene	0.99	U	0.99	0.27	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Tetrachloroethene	0.99	U	0.99	0.30	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Toluene	0.99	U	0.99	0.23	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
trans-1,2-Dichloroethene	0.99	U	0.99	0.24	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Trichloroethene	0.99	U	0.99	0.32	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Vinyl chloride	0.99	U	0.99	0.54	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1
Xylenes, Total	2.0	U	2.0	0.63	ug/Kg	✱	09/02/21 07:53	09/02/21 22:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		77 - 145	09/02/21 07:53	09/02/21 22:28	1
4-Bromofluorobenzene	111		70 - 139	09/02/21 07:53	09/02/21 22:28	1
Dibromofluoromethane (Surr)	111		48 - 150	09/02/21 07:53	09/02/21 22:28	1
Toluene-d8 (Surr)	110		80 - 120	09/02/21 07:53	09/02/21 22:28	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	350	U	350	13	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
2-Methylphenol	350	U	350	13	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
3 & 4 Methylphenol	350	U	350	22	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Pentachlorophenol	280	U	280	73	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Naphthalene	350	U	350	6.1	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Acenaphthylene	350	U	350	3.6	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Acenaphthene	350	U	350	10	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Dibenzofuran	350	U	350	5.0	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Fluorene	350	U	350	4.8	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Hexachlorobenzene	35	U	35	17	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Phenanthrene	20	J	350	6.2	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Anthracene	350	U	350	11	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Fluoranthene	31	J	350	12	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Pyrene	37	J	350	8.8	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Benzo[a]anthracene	25	J	35	12	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Chrysene	19	J	350	6.0	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Benzo[b]fluoranthene	27	J	35	9.2	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Benzo[k]fluoranthene	7.6	J	35	6.9	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Benzo[a]pyrene	20	J	35	9.4	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Indeno[1,2,3-cd]pyrene	35	U	35	14	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Dibenz(a,h)anthracene	35	U	35	15	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
Benzo[g,h,i]perylene	13	J	350	10	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1
1,4-Dioxane	35	U	35	31	ug/Kg	✱	09/02/21 11:14	09/02/21 22:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 049_LB-31-5-7

Lab Sample ID: 460-241982-12

Date Collected: 08/31/21 15:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 93.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		11 - 104	09/02/21 11:14	09/02/21 22:33	1
Phenol-d5 (Surr)	60		15 - 100	09/02/21 11:14	09/02/21 22:33	1
Terphenyl-d14 (Surr)	71		12 - 126	09/02/21 11:14	09/02/21 22:33	1
2,4,6-Tribromophenol (Surr)	49		10 - 123	09/02/21 11:14	09/02/21 22:33	1
2-Fluorophenol (Surr)	58		10 - 105	09/02/21 11:14	09/02/21 22:33	1
2-Fluorobiphenyl	54		14 - 103	09/02/21 11:14	09/02/21 22:33	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.2	U	7.2	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
4,4'-DDE	7.2	U	7.2	0.85	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
4,4'-DDT	2.7	J	7.2	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Aldrin	7.2	U	7.2	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
alpha-BHC	2.1	U	2.1	0.73	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
beta-BHC	2.1	U	2.1	0.80	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Chlordane (technical)	72	U	72	17	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
delta-BHC	2.1	U	2.1	0.44	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Dieldrin	2.1	U	2.1	0.93	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Endosulfan I	7.2	U	7.2	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Endosulfan II	7.2	U	7.2	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Endosulfan sulfate	7.2	U	7.2	0.90	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Endrin	7.2	U	7.2	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Endrin aldehyde	7.2	U	7.2	1.7	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Endrin ketone	7.2	U	7.2	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
gamma-BHC (Lindane)	2.1	U	2.1	0.66	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Heptachlor	7.2	U	7.2	0.85	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Heptachlor epoxide	7.2	U	7.2	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Methoxychlor	7.2	U	7.2	1.6	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
Toxaphene	72	U	72	26	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1
cis-Chlordane	7.2	U	7.2	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 150	09/02/21 18:26	09/03/21 07:30	1
DCB Decachlorobiphenyl	77		10 - 150	09/02/21 18:26	09/03/21 07:30	1
Tetrachloro-m-xylene	79		10 - 133	09/02/21 18:26	09/03/21 07:30	1
Tetrachloro-m-xylene	78		10 - 133	09/02/21 18:26	09/03/21 07:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Aroclor 1221	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Aroclor 1232	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Aroclor 1242	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Aroclor 1248	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Aroclor 1254	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Aroclor 1260	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Aroclor-1262	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Aroclor 1268	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1
Polychlorinated biphenyls, Total	72	U	72	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:08	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 049_LB-31-5-7

Lab Sample ID: 460-241982-12

Date Collected: 08/31/21 15:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 93.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		37 - 150	09/02/21 17:59	09/03/21 11:08	1
DCB Decachlorobiphenyl	91		37 - 150	09/02/21 17:59	09/03/21 11:08	1
Tetrachloro-m-xylene	85		54 - 150	09/02/21 17:59	09/03/21 11:08	1
Tetrachloro-m-xylene	80		54 - 150	09/02/21 17:59	09/03/21 11:08	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	36	U	36	3.7	ug/Kg	☆	09/03/21 00:12	09/03/21 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	114		65 - 150	09/03/21 00:12	09/03/21 20:45	1
2,4-Dichlorophenylacetic acid	117		65 - 150	09/03/21 00:12	09/03/21 20:45	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluoroheptanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorooctanoic acid	0.38	J	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorononanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorodecanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorotridecanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorotetradecanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorobutanesulfonic acid	2.12	U	2.12	0.42	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorohexanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorooctanesulfonic acid	0.90		0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
NEtFOSAA	2.12	U	2.12	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
NMeFOSAA	2.12	U	2.12	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluoroheptanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorodecanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorooctanesulfonamide	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorobutanoic acid	2.12	U	2.12	0.85	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluoroundecanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluorododecanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
6:2 Fluorotelomer sulfonic acid	2.12	U	2.12	0.64	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
8:2 Fluorotelomer sulfonic acid	3.18	U	3.18	0.64	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1
Perfluoropentanoic acid	0.64	U	0.64	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 00:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	108		10 - 178	09/03/21 08:39	09/06/21 00:53	1
M2-6:2 FTS	102		10 - 182	09/03/21 08:39	09/06/21 00:53	1
13C5 PFHxA	99		11 - 138	09/03/21 08:39	09/06/21 00:53	1
13C4 PFHpA	99		15 - 139	09/03/21 08:39	09/06/21 00:53	1
13C8 PFOA	103		21 - 133	09/03/21 08:39	09/06/21 00:53	1
13C9 PFNA	100		15 - 145	09/03/21 08:39	09/06/21 00:53	1
13C6 PFDA	97		21 - 134	09/03/21 08:39	09/06/21 00:53	1
13C7 PFUnA	100		15 - 138	09/03/21 08:39	09/06/21 00:53	1
13C2-PFDoDA	99		28 - 126	09/03/21 08:39	09/06/21 00:53	1
13C2 PFTeDA	97		10 - 138	09/03/21 08:39	09/06/21 00:53	1
13C3 PFBS	113		23 - 130	09/03/21 08:39	09/06/21 00:53	1
13C3 PFHxS	106		24 - 136	09/03/21 08:39	09/06/21 00:53	1
13C8 PFOS	102		31 - 130	09/03/21 08:39	09/06/21 00:53	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 049_LB-31-5-7

Lab Sample ID: 460-241982-12

Date Collected: 08/31/21 15:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 93.5

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	40		10 - 172	09/03/21 08:39	09/06/21 00:53	1
d5-NEtFOSAA	48		10 - 176	09/03/21 08:39	09/06/21 00:53	1
13C8 FOSA	93		25 - 135	09/03/21 08:39	09/06/21 00:53	1
13C4 PFBA	95		12 - 137	09/03/21 08:39	09/06/21 00:53	1
13C5 PFPeA	103		12 - 135	09/03/21 08:39	09/06/21 00:53	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.99	U	0.99	0.088	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Arsenic	1.7		0.99	0.099	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Barium	31.0		2.0	0.14	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Beryllium	0.36	J	0.40	0.056	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Cadmium	0.99	U	0.99	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Chromium	12.6		2.0	0.17	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Copper	11.9		2.0	0.22	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Manganese	295		4.0	0.40	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Nickel	10.4		2.0	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Lead	13.2		0.59	0.20	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Selenium	0.12	J	1.2	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1
Zinc	42.9		7.9	2.3	mg/Kg	☆	09/08/21 04:22	09/08/21 12:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0069	J	0.017	0.0041	mg/Kg	☆	09/03/21 03:44	09/03/21 08:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.6		2.0	2.0	mg/Kg			09/08/21 16:00	1
Cr (VI)	2.1	U	2.1	0.91	mg/Kg	☆	09/07/21 14:44	09/08/21 14:45	1
Cyanide, Total	0.25	U	0.25	0.13	mg/Kg	☆	09/05/21 14:10	09/06/21 19:21	1
Percent Moisture	6.5		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	93.5		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 050_LB-31-15-16

Lab Sample ID: 460-241982-13

Date Collected: 08/31/21 15:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.98	U	0.98	0.23	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,1-Dichloroethane	0.98	U	0.98	0.20	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,1-Dichloroethene	0.98	U	0.98	0.22	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.24	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,2-Dichlorobenzene	0.98	U	0.98	0.35	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,2-Dichloroethane	0.98	U	0.98	0.29	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.31	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,3-Dichlorobenzene	0.98	U	0.98	0.36	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,4-Dichlorobenzene	0.98	U	0.98	0.22	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
1,4-Dioxane	20	U	20	9.0	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
2-Butanone (MEK)	4.1	J	4.9	0.36	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1
Acetone	34		5.9	5.6	ug/Kg	☆	09/02/21 07:53	09/02/21 22:48	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 050_LB-31-15-16

Lab Sample ID: 460-241982-13

Date Collected: 08/31/21 15:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.98	U	0.98	0.25	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Carbon tetrachloride	0.98	U	0.98	0.38	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Chlorobenzene	0.98	U	0.98	0.17	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Chloroform	0.98	U	0.98	0.95	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
cis-1,2-Dichloroethene	0.98	U	0.98	0.35	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Ethylbenzene	0.98	U	0.98	0.19	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Methyl tert-butyl ether	0.98	U	0.98	0.50	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
n-Butylbenzene	0.98	U	0.98	0.29	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
N-Propylbenzene	0.98	U *	0.98	0.17	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
sec-Butylbenzene	0.98	U	0.98	0.28	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
tert-Butylbenzene	0.98	U	0.98	0.27	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Tetrachloroethene	0.98	U	0.98	0.30	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Toluene	0.98	U	0.98	0.23	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
trans-1,2-Dichloroethene	0.98	U	0.98	0.24	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Trichloroethene	0.98	U	0.98	0.31	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Vinyl chloride	0.98	U	0.98	0.53	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1
Xylenes, Total	2.0	U	2.0	0.63	ug/Kg	✱	09/02/21 07:53	09/02/21 22:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		77 - 145	09/02/21 07:53	09/02/21 22:48	1
4-Bromofluorobenzene	111		70 - 139	09/02/21 07:53	09/02/21 22:48	1
Dibromofluoromethane (Surr)	102		48 - 150	09/02/21 07:53	09/02/21 22:48	1
Toluene-d8 (Surr)	109		80 - 120	09/02/21 07:53	09/02/21 22:48	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
2-Methylphenol	380	U	380	14	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Pentachlorophenol	310	U	310	78	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Naphthalene	14	J	380	6.6	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Acenaphthylene	380	U	380	3.8	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Acenaphthene	16	J	380	11	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Dibenzofuran	12	J	380	5.4	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Fluorene	16	J	380	5.2	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Hexachlorobenzene	38	U	38	18	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Phenanthrene	230	J	380	6.7	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Anthracene	45	J	380	12	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Fluoranthene	250	J	380	13	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Pyrene	290	J	380	9.5	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Benzo[a]anthracene	140		38	13	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Chrysene	130	J	380	6.5	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Benzo[b]fluoranthene	150		38	9.9	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Benzo[k]fluoranthene	57		38	7.5	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Benzo[a]pyrene	120		38	10	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Indeno[1,2,3-cd]pyrene	67		38	15	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Dibenz(a,h)anthracene	20	J	38	17	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
Benzo[g,h,i]perylene	65	J	380	11	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1
1,4-Dioxane	38	U	38	33	ug/Kg	✱	09/02/21 11:14	09/02/21 22:56	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 050_LB-31-15-16

Lab Sample ID: 460-241982-13

Date Collected: 08/31/21 15:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		11 - 104	09/02/21 11:14	09/02/21 22:56	1
Phenol-d5 (Surr)	61		15 - 100	09/02/21 11:14	09/02/21 22:56	1
Terphenyl-d14 (Surr)	71		12 - 126	09/02/21 11:14	09/02/21 22:56	1
2,4,6-Tribromophenol (Surr)	33		10 - 123	09/02/21 11:14	09/02/21 22:56	1
2-Fluorophenol (Surr)	52		10 - 105	09/02/21 11:14	09/02/21 22:56	1
2-Fluorobiphenyl	55		14 - 103	09/02/21 11:14	09/02/21 22:56	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
4,4'-DDE	3.3	J	7.8	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
4,4'-DDT	4.0	J	7.8	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Chlordane (technical)	78	U	78	19	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Endosulfan sulfate	7.8	U	7.8	0.97	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Endrin	7.8	U	7.8	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Heptachlor	7.8	U	7.8	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
Toxaphene	78	U	78	28	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	09/02/21 18:26	09/03/21 07:43	1
DCB Decachlorobiphenyl	83		10 - 150	09/02/21 18:26	09/03/21 07:43	1
Tetrachloro-m-xylene	84		10 - 133	09/02/21 18:26	09/03/21 07:43	1
Tetrachloro-m-xylene	82		10 - 133	09/02/21 18:26	09/03/21 07:43	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Aroclor 1221	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Aroclor 1232	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Aroclor 1242	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Aroclor 1248	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Aroclor 1254	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Aroclor 1260	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Aroclor-1262	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Aroclor 1268	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:25	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 050_LB-31-15-16

Lab Sample ID: 460-241982-13

Date Collected: 08/31/21 15:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		37 - 150	09/02/21 17:59	09/03/21 11:25	1
DCB Decachlorobiphenyl	93		37 - 150	09/02/21 17:59	09/03/21 11:25	1
Tetrachloro-m-xylene	88		54 - 150	09/02/21 17:59	09/03/21 11:25	1
Tetrachloro-m-xylene	84		54 - 150	09/02/21 17:59	09/03/21 11:25	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.0	ug/Kg	☆	09/03/21 00:12	09/03/21 20:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	113		65 - 150	09/03/21 00:12	09/03/21 20:59	1
2,4-Dichlorophenylacetic acid	117		65 - 150	09/03/21 00:12	09/03/21 20:59	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluoroheptanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorooctanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorononanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorodecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorotridecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorotetradecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorobutanesulfonic acid	2.20	U	2.20	0.44	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorohexanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorooctanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
NEtFOSAA	2.20	U	2.20	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
NMeFOSAA	2.20	U	2.20	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluoroheptanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorodecanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorooctanesulfonamide	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorobutanoic acid	2.20	U	2.20	0.88	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluoroundecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluorododecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
6:2 Fluorotelomer sulfonic acid	2.20	U	2.20	0.66	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
8:2 Fluorotelomer sulfonic acid	3.31	U	3.31	0.66	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1
Perfluoropentanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 01:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	104		10 - 178	09/03/21 08:39	09/06/21 01:04	1
M2-6:2 FTS	104		10 - 182	09/03/21 08:39	09/06/21 01:04	1
13C5 PFHxA	106		11 - 138	09/03/21 08:39	09/06/21 01:04	1
13C4 PFHpA	101		15 - 139	09/03/21 08:39	09/06/21 01:04	1
13C8 PFOA	103		21 - 133	09/03/21 08:39	09/06/21 01:04	1
13C9 PFNA	99		15 - 145	09/03/21 08:39	09/06/21 01:04	1
13C6 PFDA	99		21 - 134	09/03/21 08:39	09/06/21 01:04	1
13C7 PFUnA	101		15 - 138	09/03/21 08:39	09/06/21 01:04	1
13C2-PFDoDA	96		28 - 126	09/03/21 08:39	09/06/21 01:04	1
13C2 PFTeDA	94		10 - 138	09/03/21 08:39	09/06/21 01:04	1
13C3 PFBS	113		23 - 130	09/03/21 08:39	09/06/21 01:04	1
13C3 PFHxS	105		24 - 136	09/03/21 08:39	09/06/21 01:04	1
13C8 PFOS	102		31 - 130	09/03/21 08:39	09/06/21 01:04	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 050_LB-31-15-16

Lab Sample ID: 460-241982-13

Date Collected: 08/31/21 15:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	77		10 - 172	09/03/21 08:39	09/06/21 01:04	1
d5-NEtFOSAA	88		10 - 176	09/03/21 08:39	09/06/21 01:04	1
13C8 FOSA	97		25 - 135	09/03/21 08:39	09/06/21 01:04	1
13C4 PFBA	94		12 - 137	09/03/21 08:39	09/06/21 01:04	1
13C5 PFPeA	98		12 - 135	09/03/21 08:39	09/06/21 01:04	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.095	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Arsenic	1.6		1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Barium	21.4		2.1	0.16	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Beryllium	0.31	J	0.43	0.061	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Chromium	9.8		2.1	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Copper	10.7		2.1	0.24	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Manganese	198		4.3	0.43	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Nickel	9.9		2.1	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Lead	19.3		0.64	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Selenium	1.3	U	1.3	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1
Zinc	57.4		8.6	2.5	mg/Kg	☆	09/08/21 04:22	09/08/21 12:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0063	J	0.019	0.0046	mg/Kg	☆	09/03/21 03:44	09/03/21 08:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.8		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.3	U	2.3	0.99	mg/Kg	☆	09/16/21 18:20	09/17/21 21:55	1
Cyanide, Total	0.28	U	0.28	0.15	mg/Kg	☆	09/05/21 14:10	09/06/21 19:22	1
Percent Moisture	13.6		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	86.4		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 051_LB-32-5-7

Lab Sample ID: 460-241982-14

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 92.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.94	U	0.94	0.22	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,1-Dichloroethane	0.94	U	0.94	0.19	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,1-Dichloroethene	0.94	U	0.94	0.21	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,2,4-Trimethylbenzene	0.94	U	0.94	0.23	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,2-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,2-Dichloroethane	0.94	U	0.94	0.28	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,3,5-Trimethylbenzene	0.94	U	0.94	0.29	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,3-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,4-Dichlorobenzene	0.94	U	0.94	0.21	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
1,4-Dioxane	19	U	19	8.6	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
2-Butanone (MEK)	4.7	U	4.7	0.34	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1
Acetone	5.6	U	5.6	5.3	ug/Kg	☆	09/02/21 07:54	09/02/21 23:08	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 051_LB-32-5-7

Lab Sample ID: 460-241982-14

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 92.2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.94	U	0.94	0.24	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Carbon tetrachloride	0.94	U	0.94	0.36	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Chlorobenzene	0.94	U	0.94	0.17	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Chloroform	0.94	U	0.94	0.91	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
cis-1,2-Dichloroethene	0.94	U	0.94	0.33	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Ethylbenzene	0.94	U	0.94	0.19	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Methyl tert-butyl ether	0.94	U	0.94	0.48	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
n-Butylbenzene	0.94	U	0.94	0.27	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
N-Propylbenzene	0.94	U *	0.94	0.16	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
sec-Butylbenzene	0.94	U	0.94	0.27	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
tert-Butylbenzene	0.94	U	0.94	0.26	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Tetrachloroethene	0.94	U	0.94	0.29	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Toluene	0.94	U	0.94	0.22	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
trans-1,2-Dichloroethene	0.94	U	0.94	0.23	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Trichloroethene	0.94	U	0.94	0.30	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Vinyl chloride	0.94	U	0.94	0.51	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1
Xylenes, Total	1.9	U	1.9	0.60	ug/Kg	✱	09/02/21 07:54	09/02/21 23:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		77 - 145	09/02/21 07:54	09/02/21 23:08	1
4-Bromofluorobenzene	115		70 - 139	09/02/21 07:54	09/02/21 23:08	1
Dibromofluoromethane (Surr)	114		48 - 150	09/02/21 07:54	09/02/21 23:08	1
Toluene-d8 (Surr)	112		80 - 120	09/02/21 07:54	09/02/21 23:08	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	360	U	360	13	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
2-Methylphenol	360	U	360	13	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
3 & 4 Methylphenol	360	U	360	22	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Pentachlorophenol	290	U	290	74	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Naphthalene	9.7	J	360	6.2	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Acenaphthylene	360	U	360	3.6	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Acenaphthene	11	J	360	10	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Dibenzofuran	7.9	J	360	5.0	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Fluorene	360	U	360	4.9	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Hexachlorobenzene	36	U	36	17	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Phenanthrene	170	J	360	6.3	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Anthracene	18	J	360	11	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Fluoranthene	190	J	360	13	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Pyrene	200	J	360	8.9	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Benzo[a]anthracene	81		36	13	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Chrysene	88	J	360	6.1	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Benzo[b]fluoranthene	120		36	9.3	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Benzo[k]fluoranthene	47		36	7.0	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Benzo[a]pyrene	98		36	9.6	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Indeno[1,2,3-cd]pyrene	58		36	14	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Dibenz(a,h)anthracene	36	U	36	16	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
Benzo[g,h,i]perylene	55	J	360	11	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1
1,4-Dioxane	36	U	36	31	ug/Kg	✱	09/02/21 11:14	09/02/21 23:18	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 051_LB-32-5-7

Lab Sample ID: 460-241982-14

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 92.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		11 - 104	09/02/21 11:14	09/02/21 23:18	1
Phenol-d5 (Surr)	58		15 - 100	09/02/21 11:14	09/02/21 23:18	1
Terphenyl-d14 (Surr)	69		12 - 126	09/02/21 11:14	09/02/21 23:18	1
2,4,6-Tribromophenol (Surr)	45		10 - 123	09/02/21 11:14	09/02/21 23:18	1
2-Fluorophenol (Surr)	57		10 - 105	09/02/21 11:14	09/02/21 23:18	1
2-Fluorobiphenyl	52		14 - 103	09/02/21 11:14	09/02/21 23:18	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.3	U	7.3	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
4,4'-DDE	7.3	U	7.3	0.86	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
4,4'-DDT	7.3	U	7.3	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Aldrin	7.3	U	7.3	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
alpha-BHC	2.2	U	2.2	0.74	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
beta-BHC	2.2	U	2.2	0.81	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Chlordane (technical)	73	U	73	18	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
delta-BHC	2.2	U	2.2	0.44	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Dieldrin	2.2	U	2.2	0.94	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Endosulfan I	7.3	U	7.3	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Endosulfan II	7.3	U	7.3	1.9	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Endosulfan sulfate	7.3	U	7.3	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Endrin	7.3	U	7.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Endrin aldehyde	7.3	U	7.3	1.7	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Endrin ketone	7.3	U	7.3	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
gamma-BHC (Lindane)	2.2	U	2.2	0.67	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Heptachlor	7.3	U	7.3	0.86	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Heptachlor epoxide	7.3	U	7.3	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Methoxychlor	7.3	U	7.3	1.7	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
Toxaphene	73	U	73	26	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1
cis-Chlordane	7.3	U	7.3	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 07:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		10 - 150	09/02/21 18:26	09/03/21 07:55	1
DCB Decachlorobiphenyl	82		10 - 150	09/02/21 18:26	09/03/21 07:55	1
Tetrachloro-m-xylene	83		10 - 133	09/02/21 18:26	09/03/21 07:55	1
Tetrachloro-m-xylene	81		10 - 133	09/02/21 18:26	09/03/21 07:55	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Aroclor 1221	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Aroclor 1232	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Aroclor 1242	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Aroclor 1248	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Aroclor 1254	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Aroclor 1260	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Aroclor-1262	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Aroclor 1268	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1
Polychlorinated biphenyls, Total	73	U	73	19	ug/Kg	☆	09/02/21 17:59	09/03/21 11:42	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 051_LB-32-5-7

Lab Sample ID: 460-241982-14

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 92.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		37 - 150	09/02/21 17:59	09/03/21 11:42	1
DCB Decachlorobiphenyl	84		37 - 150	09/02/21 17:59	09/03/21 11:42	1
Tetrachloro-m-xylene	79		54 - 150	09/02/21 17:59	09/03/21 11:42	1
Tetrachloro-m-xylene	74		54 - 150	09/02/21 17:59	09/03/21 11:42	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	36	U	36	3.8	ug/Kg	☆	09/03/21 00:12	09/03/21 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	118		65 - 150	09/03/21 00:12	09/03/21 21:12	1
2,4-Dichlorophenylacetic acid	109		65 - 150	09/03/21 00:12	09/03/21 21:12	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluoroheptanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorooctanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorononanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorodecanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorotridecanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorotetradecanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorobutanesulfonic acid	2.05	U	2.05	0.41	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorohexanesulfonic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorooctanesulfonic acid	0.33	J	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
NEtFOSAA	2.05	U	2.05	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
NMeFOSAA	2.05	U	2.05	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluoroheptanesulfonic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorodecanesulfonic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorooctanesulfonamide	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorobutanoic acid	2.05	U	2.05	0.82	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluoroundecanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluorododecanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
6:2 Fluorotelomer sulfonic acid	2.05	U	2.05	0.61	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
8:2 Fluorotelomer sulfonic acid	3.07	U	3.07	0.61	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1
Perfluoropentanoic acid	0.61	U	0.61	0.20	ug/Kg	☆	09/03/21 08:39	09/06/21 01:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	114		10 - 178	09/03/21 08:39	09/06/21 01:15	1
M2-6:2 FTS	117		10 - 182	09/03/21 08:39	09/06/21 01:15	1
13C5 PFHxA	97		11 - 138	09/03/21 08:39	09/06/21 01:15	1
13C4 PFHpA	102		15 - 139	09/03/21 08:39	09/06/21 01:15	1
13C8 PFOA	109		21 - 133	09/03/21 08:39	09/06/21 01:15	1
13C9 PFNA	99		15 - 145	09/03/21 08:39	09/06/21 01:15	1
13C6 PFDA	102		21 - 134	09/03/21 08:39	09/06/21 01:15	1
13C7 PFUnA	103		15 - 138	09/03/21 08:39	09/06/21 01:15	1
13C2-PFDoDA	106		28 - 126	09/03/21 08:39	09/06/21 01:15	1
13C2 PFTeDA	103		10 - 138	09/03/21 08:39	09/06/21 01:15	1
13C3 PFBS	113		23 - 130	09/03/21 08:39	09/06/21 01:15	1
13C3 PFHxS	104		24 - 136	09/03/21 08:39	09/06/21 01:15	1
13C8 PFOS	101		31 - 130	09/03/21 08:39	09/06/21 01:15	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 051_LB-32-5-7

Lab Sample ID: 460-241982-14

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 92.2

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	84		10 - 172	09/03/21 08:39	09/06/21 01:15	1
d5-NEtFOSAA	90		10 - 176	09/03/21 08:39	09/06/21 01:15	1
13C8 FOSA	98		25 - 135	09/03/21 08:39	09/06/21 01:15	1
13C4 PFBA	97		12 - 137	09/03/21 08:39	09/06/21 01:15	1
13C5 PFPeA	108		12 - 135	09/03/21 08:39	09/06/21 01:15	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.25	J	1.0	0.093	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Arsenic	3.8		1.0	0.10	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Barium	89.9		2.1	0.15	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Beryllium	0.36	J	0.42	0.059	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Cadmium	0.19	J	1.0	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Chromium	12.9		2.1	0.18	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Copper	21.9		2.1	0.23	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Manganese	234		4.2	0.42	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Nickel	11.4		2.1	0.20	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Lead	387		0.63	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Selenium	0.28	J	1.3	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1
Zinc	160		8.3	2.4	mg/Kg	☆	09/08/21 04:22	09/08/21 12:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.30		0.018	0.0041	mg/Kg	☆	09/03/21 03:44	09/03/21 08:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.9		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.2	U	2.2	0.92	mg/Kg	☆	09/16/21 18:20	09/17/21 21:55	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	☆	09/05/21 14:10	09/06/21 19:23	1
Percent Moisture	7.8		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	92.2		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 052_LB-32-15-16

Lab Sample ID: 460-241982-15

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.94	U	0.94	0.22	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,1-Dichloroethane	0.94	U	0.94	0.19	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,1-Dichloroethene	0.94	U	0.94	0.21	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,2,4-Trimethylbenzene	0.94	U	0.94	0.23	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,2-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,2-Dichloroethane	0.94	U	0.94	0.28	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,3,5-Trimethylbenzene	0.94	U	0.94	0.30	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,3-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,4-Dichlorobenzene	0.94	U	0.94	0.21	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
1,4-Dioxane	19	U	19	8.6	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
2-Butanone (MEK)	4.7	U	4.7	0.35	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1
Acetone	5.6	U	5.6	5.4	ug/Kg	☆	09/02/21 07:55	09/02/21 23:28	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 052_LB-32-15-16

Lab Sample ID: 460-241982-15

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.94	U	0.94	0.24	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Carbon tetrachloride	0.94	U	0.94	0.36	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Chlorobenzene	0.94	U	0.94	0.17	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Chloroform	0.94	U	0.94	0.91	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
cis-1,2-Dichloroethene	0.94	U	0.94	0.34	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Ethylbenzene	0.94	U	0.94	0.19	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Methyl tert-butyl ether	0.94	U	0.94	0.48	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
n-Butylbenzene	0.94	U	0.94	0.28	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
N-Propylbenzene	0.94	U *	0.94	0.16	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
sec-Butylbenzene	0.94	U	0.94	0.27	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
tert-Butylbenzene	0.94	U	0.94	0.26	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Tetrachloroethene	0.94	U	0.94	0.29	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Toluene	0.94	U	0.94	0.22	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
trans-1,2-Dichloroethene	0.94	U	0.94	0.23	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Trichloroethene	0.94	U	0.94	0.30	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Vinyl chloride	0.94	U	0.94	0.51	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1
Xylenes, Total	1.9	U	1.9	0.60	ug/Kg	✱	09/02/21 07:55	09/02/21 23:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		77 - 145	09/02/21 07:55	09/02/21 23:28	1
4-Bromofluorobenzene	115		70 - 139	09/02/21 07:55	09/02/21 23:28	1
Dibromofluoromethane (Surr)	117		48 - 150	09/02/21 07:55	09/02/21 23:28	1
Toluene-d8 (Surr)	116		80 - 120	09/02/21 07:55	09/02/21 23:28	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
2-Methylphenol	380	U	380	14	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Pentachlorophenol	310	U	310	79	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Naphthalene	380	U	380	6.7	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Acenaphthylene	380	U	380	3.9	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Acenaphthene	380	U	380	11	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Dibenzofuran	380	U	380	5.4	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Fluorene	380	U	380	5.2	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Hexachlorobenzene	38	U	38	18	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Phenanthrene	21	J	380	6.8	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Anthracene	380	U	380	12	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Fluoranthene	27	J	380	13	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Pyrene	30	J	380	9.6	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Benzo[a]anthracene	23	J	38	13	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Chrysene	17	J	380	6.5	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Benzo[b]fluoranthene	25	J	38	10	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Benzo[k]fluoranthene	8.8	J	38	7.5	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Benzo[a]pyrene	18	J	38	10	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Indeno[1,2,3-cd]pyrene	19	J	38	15	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Dibenz(a,h)anthracene	38	U	38	17	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
Benzo[g,h,i]perylene	19	J	380	11	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1
1,4-Dioxane	38	U	38	34	ug/Kg	✱	09/02/21 11:14	09/02/21 23:40	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 052_LB-32-15-16

Lab Sample ID: 460-241982-15

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		11 - 104	09/02/21 11:14	09/02/21 23:40	1
Phenol-d5 (Surr)	54		15 - 100	09/02/21 11:14	09/02/21 23:40	1
Terphenyl-d14 (Surr)	68		12 - 126	09/02/21 11:14	09/02/21 23:40	1
2,4,6-Tribromophenol (Surr)	26		10 - 123	09/02/21 11:14	09/02/21 23:40	1
2-Fluorophenol (Surr)	48		10 - 105	09/02/21 11:14	09/02/21 23:40	1
2-Fluorobiphenyl	55		14 - 103	09/02/21 11:14	09/02/21 23:40	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
4,4'-DDE	7.8	U	7.8	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
4,4'-DDT	7.8	U	7.8	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Chlordane (technical)	78	U	78	19	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Endrin	7.8	U	7.8	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Heptachlor	7.8	U	7.8	0.92	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
Toxaphene	78	U	78	28	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		10 - 150	09/02/21 18:26	09/03/21 08:07	1
DCB Decachlorobiphenyl	89		10 - 150	09/02/21 18:26	09/03/21 08:07	1
Tetrachloro-m-xylene	87		10 - 133	09/02/21 18:26	09/03/21 08:07	1
Tetrachloro-m-xylene	86		10 - 133	09/02/21 18:26	09/03/21 08:07	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Aroclor 1221	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Aroclor 1232	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Aroclor 1242	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Aroclor 1248	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Aroclor 1254	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Aroclor 1260	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Aroclor-1262	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Aroclor 1268	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	☆	09/02/21 17:59	09/03/21 11:59	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 052_LB-32-15-16

Lab Sample ID: 460-241982-15

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		37 - 150	09/02/21 17:59	09/03/21 11:59	1
DCB Decachlorobiphenyl	81		37 - 150	09/02/21 17:59	09/03/21 11:59	1
Tetrachloro-m-xylene	75		54 - 150	09/02/21 17:59	09/03/21 11:59	1
Tetrachloro-m-xylene	72		54 - 150	09/02/21 17:59	09/03/21 11:59	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.0	ug/Kg	☆	09/03/21 00:12	09/03/21 21:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	114		65 - 150	09/03/21 00:12	09/03/21 21:26	1
2,4-Dichlorophenylacetic acid	116		65 - 150	09/03/21 00:12	09/03/21 21:26	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluoroheptanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorooctanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorononanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorodecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorotridecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorotetradecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorobutanesulfonic acid	2.30	U	2.30	0.46	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorohexanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorooctanesulfonic acid	0.73		0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
NEtFOSAA	2.30	U	2.30	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
NMeFOSAA	2.30	U	2.30	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluoroheptanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorodecanesulfonic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorooctanesulfonamide	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorobutanoic acid	2.30	U	2.30	0.92	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluoroundecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluorododecanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
6:2 Fluorotelomer sulfonic acid	2.30	U	2.30	0.69	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
8:2 Fluorotelomer sulfonic acid	3.45	U	3.45	0.69	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1
Perfluoropentanoic acid	0.69	U	0.69	0.23	ug/Kg	☆	09/03/21 08:39	09/06/21 01:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	105		10 - 178	09/03/21 08:39	09/06/21 01:26	1
M2-6:2 FTS	109		10 - 182	09/03/21 08:39	09/06/21 01:26	1
13C5 PFHxA	95		11 - 138	09/03/21 08:39	09/06/21 01:26	1
13C4 PFHpA	97		15 - 139	09/03/21 08:39	09/06/21 01:26	1
13C8 PFOA	100		21 - 133	09/03/21 08:39	09/06/21 01:26	1
13C9 PFNA	97		15 - 145	09/03/21 08:39	09/06/21 01:26	1
13C6 PFDA	100		21 - 134	09/03/21 08:39	09/06/21 01:26	1
13C7 PFUnA	96		15 - 138	09/03/21 08:39	09/06/21 01:26	1
13C2-PFDoDA	91		28 - 126	09/03/21 08:39	09/06/21 01:26	1
13C2 PFTeDA	95		10 - 138	09/03/21 08:39	09/06/21 01:26	1
13C3 PFBS	111		23 - 130	09/03/21 08:39	09/06/21 01:26	1
13C3 PFHxS	95		24 - 136	09/03/21 08:39	09/06/21 01:26	1
13C8 PFOS	99		31 - 130	09/03/21 08:39	09/06/21 01:26	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 052_LB-32-15-16

Lab Sample ID: 460-241982-15

Date Collected: 08/31/21 15:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	89		10 - 172	09/03/21 08:39	09/06/21 01:26	1
d5-NEtFOSAA	92		10 - 176	09/03/21 08:39	09/06/21 01:26	1
13C8 FOSA	98		25 - 135	09/03/21 08:39	09/06/21 01:26	1
13C4 PFBA	93		12 - 137	09/03/21 08:39	09/06/21 01:26	1
13C5 PFPeA	100		12 - 135	09/03/21 08:39	09/06/21 01:26	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.095	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Arsenic	1.9		1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Barium	19.3		2.1	0.15	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Beryllium	0.24	J	0.43	0.061	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Chromium	10.6		2.1	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Copper	37.8		2.1	0.23	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Manganese	252		4.3	0.43	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Nickel	15.1		2.1	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Lead	21.0		0.64	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Selenium	1.3	U	1.3	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1
Zinc	128		8.5	2.4	mg/Kg	☆	09/08/21 04:22	09/08/21 12:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.055		0.018	0.0043	mg/Kg	☆	09/03/21 04:02	09/03/21 09:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.6		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	☆	09/16/21 18:20	09/17/21 21:55	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	☆	09/05/21 14:10	09/06/21 19:27	1
Percent Moisture	14.0		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	86.0		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 053_LB-33-5-7

Lab Sample ID: 460-241982-16

Date Collected: 08/31/21 15:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 88.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,2-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.32	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
1,4-Dioxane	21	U	21	9.4	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
2-Butanone (MEK)	4.4	J	5.1	0.38	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1
Acetone	46		6.2	5.9	ug/Kg	☆	09/02/21 07:56	09/02/21 23:49	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 053_LB-33-5-7

Lab Sample ID: 460-241982-16

Date Collected: 08/31/21 15:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 88.5

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.26	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Carbon tetrachloride	1.0	U	1.0	0.40	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Chloroform	1.0	U	1.0	1.0	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.37	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Methyl tert-butyl ether	1.0	U	1.0	0.53	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Methylene Chloride	2.1	U	2.1	1.2	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
n-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
N-Propylbenzene	1.0	U *	1.0	0.18	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
sec-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Toluene	1.0	U	1.0	0.24	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Trichloroethene	1.0	U	1.0	0.33	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Vinyl chloride	1.0	U	1.0	0.56	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1
Xylenes, Total	2.1	U	2.1	0.66	ug/Kg	✱	09/02/21 07:56	09/02/21 23:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		77 - 145	09/02/21 07:56	09/02/21 23:49	1
4-Bromofluorobenzene	113		70 - 139	09/02/21 07:56	09/02/21 23:49	1
Dibromofluoromethane (Surr)	101		48 - 150	09/02/21 07:56	09/02/21 23:49	1
Toluene-d8 (Surr)	113		80 - 120	09/02/21 07:56	09/02/21 23:49	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	370	U	370	14	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
2-Methylphenol	370	U	370	14	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
3 & 4 Methylphenol	370	U	370	23	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Pentachlorophenol	300	U	300	77	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Naphthalene	370	U	370	6.5	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Acenaphthylene	370	U	370	3.8	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Acenaphthene	370	U	370	11	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Dibenzofuran	370	U	370	5.2	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Fluorene	370	U	370	5.1	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Hexachlorobenzene	37	U	37	18	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Phenanthrene	370	U	370	6.6	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Anthracene	370	U	370	11	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Fluoranthene	370	U	370	13	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Pyrene	370	U	370	9.3	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Benzo[a]anthracene	37	U	37	13	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Chrysene	370	U	370	6.3	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Benzo[b]fluoranthene	37	U	37	9.7	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Benzo[k]fluoranthene	37	U	37	7.3	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Benzo[a]pyrene	37	U	37	10	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Indeno[1,2,3-cd]pyrene	37	U	37	15	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Dibenz(a,h)anthracene	37	U	37	16	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
Benzo[g,h,i]perylene	370	U	370	11	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1
1,4-Dioxane	37	U	37	33	ug/Kg	✱	09/02/21 11:14	09/03/21 00:03	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 053_LB-33-5-7

Lab Sample ID: 460-241982-16

Date Collected: 08/31/21 15:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 88.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		11 - 104	09/02/21 11:14	09/03/21 00:03	1
Phenol-d5 (Surr)	65		15 - 100	09/02/21 11:14	09/03/21 00:03	1
Terphenyl-d14 (Surr)	77		12 - 126	09/02/21 11:14	09/03/21 00:03	1
2,4,6-Tribromophenol (Surr)	54		10 - 123	09/02/21 11:14	09/03/21 00:03	1
2-Fluorophenol (Surr)	63		10 - 105	09/02/21 11:14	09/03/21 00:03	1
2-Fluorobiphenyl	59		14 - 103	09/02/21 11:14	09/03/21 00:03	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.6	U	7.6	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
4,4'-DDE	7.6	U	7.6	0.89	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
4,4'-DDT	7.6	U	7.6	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Aldrin	7.6	U	7.6	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
alpha-BHC	2.3	U	2.3	0.77	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
beta-BHC	2.3	U	2.3	0.85	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Chlordane (technical)	76	U	76	18	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
delta-BHC	2.3	U	2.3	0.46	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Dieldrin	2.3	U	2.3	0.98	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Endosulfan I	7.6	U	7.6	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Endosulfan II	7.6	U	7.6	1.9	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Endosulfan sulfate	7.6	U	7.6	0.95	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Endrin	7.6	U	7.6	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Endrin aldehyde	7.6	U	7.6	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Endrin ketone	7.6	U	7.6	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
gamma-BHC (Lindane)	2.3	U	2.3	0.70	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Heptachlor	7.6	U	7.6	0.89	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Heptachlor epoxide	7.6	U	7.6	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Methoxychlor	7.6	U	7.6	1.7	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
Toxaphene	76	U	76	27	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1
cis-Chlordane	7.6	U	7.6	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 150	09/02/21 18:26	09/03/21 08:20	1
DCB Decachlorobiphenyl	75		10 - 150	09/02/21 18:26	09/03/21 08:20	1
Tetrachloro-m-xylene	74		10 - 133	09/02/21 18:26	09/03/21 08:20	1
Tetrachloro-m-xylene	73		10 - 133	09/02/21 18:26	09/03/21 08:20	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Aroclor 1221	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Aroclor 1232	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Aroclor 1242	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Aroclor 1248	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Aroclor 1254	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Aroclor 1260	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Aroclor-1262	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Aroclor 1268	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1
Polychlorinated biphenyls, Total	76	U	76	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:16	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 053_LB-33-5-7

Lab Sample ID: 460-241982-16

Date Collected: 08/31/21 15:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 88.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		37 - 150	09/02/21 17:59	09/03/21 12:16	1
DCB Decachlorobiphenyl	85		37 - 150	09/02/21 17:59	09/03/21 12:16	1
Tetrachloro-m-xylene	79		54 - 150	09/02/21 17:59	09/03/21 12:16	1
Tetrachloro-m-xylene	75		54 - 150	09/02/21 17:59	09/03/21 12:16	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	3.9	ug/Kg	☆	09/03/21 00:14	09/07/21 11:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	147		65 - 150	09/03/21 00:14	09/07/21 11:47	1
2,4-Dichlorophenylacetic acid	110		65 - 150	09/03/21 00:14	09/07/21 11:47	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluoroheptanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorooctanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorononanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorodecanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorotridecanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorotetradecanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorobutanesulfonic acid	2.07	U	2.07	0.41	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorohexanesulfonic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorooctanesulfonic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
NEtFOSAA	2.07	U	2.07	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
NMeFOSAA	2.07	U	2.07	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluoroheptanesulfonic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorodecanesulfonic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorooctanesulfonamide	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorobutanoic acid	2.07	U	2.07	0.83	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluoroundecanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluorododecanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
6:2 Fluorotelomer sulfonic acid	2.07	U	2.07	0.62	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
8:2 Fluorotelomer sulfonic acid	3.11	U	3.11	0.62	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1
Perfluoropentanoic acid	0.62	U	0.62	0.21	ug/Kg	☆	09/03/21 08:39	09/06/21 01:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	91		10 - 178	09/03/21 08:39	09/06/21 01:37	1
M2-6:2 FTS	95		10 - 182	09/03/21 08:39	09/06/21 01:37	1
13C5 PFHxA	91		11 - 138	09/03/21 08:39	09/06/21 01:37	1
13C4 PFHpA	89		15 - 139	09/03/21 08:39	09/06/21 01:37	1
13C8 PFOA	94		21 - 133	09/03/21 08:39	09/06/21 01:37	1
13C9 PFNA	93		15 - 145	09/03/21 08:39	09/06/21 01:37	1
13C6 PFDA	92		21 - 134	09/03/21 08:39	09/06/21 01:37	1
13C7 PFUnA	92		15 - 138	09/03/21 08:39	09/06/21 01:37	1
13C2-PFDoDA	84		28 - 126	09/03/21 08:39	09/06/21 01:37	1
13C2 PFTeDA	89		10 - 138	09/03/21 08:39	09/06/21 01:37	1
13C3 PFBS	107		23 - 130	09/03/21 08:39	09/06/21 01:37	1
13C3 PFHxS	95		24 - 136	09/03/21 08:39	09/06/21 01:37	1
13C8 PFOS	96		31 - 130	09/03/21 08:39	09/06/21 01:37	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 053_LB-33-5-7

Lab Sample ID: 460-241982-16

Date Collected: 08/31/21 15:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 88.5

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	37		10 - 172	09/03/21 08:39	09/06/21 01:37	1
d5-NEtFOSAA	45		10 - 176	09/03/21 08:39	09/06/21 01:37	1
13C8 FOSA	94		25 - 135	09/03/21 08:39	09/06/21 01:37	1
13C4 PFBA	89		12 - 137	09/03/21 08:39	09/06/21 01:37	1
13C5 PFPeA	91		12 - 135	09/03/21 08:39	09/06/21 01:37	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.19	J	1.0	0.093	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Arsenic	2.4		1.0	0.10	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Barium	77.5		2.1	0.15	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Beryllium	0.27	J	0.42	0.060	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Cadmium	0.30	J	1.0	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Chromium	10.3		2.1	0.18	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Copper	93.6		2.1	0.23	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Manganese	292		4.2	0.42	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Nickel	10.1		2.1	0.20	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Lead	242		0.63	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Selenium	1.3	U	1.3	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1
Zinc	128		8.4	2.4	mg/Kg	☆	09/08/21 04:22	09/08/21 12:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	U	0.018	0.0043	mg/Kg	☆	09/03/21 04:02	09/03/21 09:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.3		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.3	U	2.3	0.96	mg/Kg	☆	09/16/21 18:20	09/17/21 21:55	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	☆	09/05/21 14:10	09/06/21 19:28	1
Percent Moisture	11.5		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	88.5		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 054_LB-33-15-16

Lab Sample ID: 460-241982-17

Date Collected: 08/31/21 15:25

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.88	U	0.88	0.21	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,1-Dichloroethane	0.88	U	0.88	0.18	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,1-Dichloroethene	0.88	U	0.88	0.20	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,2,4-Trimethylbenzene	0.88	U	0.88	0.22	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,2-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,2-Dichloroethane	0.88	U	0.88	0.26	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,3,5-Trimethylbenzene	0.88	U	0.88	0.28	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,3-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,4-Dichlorobenzene	0.88	U	0.88	0.20	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
1,4-Dioxane	18	U	18	8.1	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
2-Butanone (MEK)	4.4	U	4.4	0.33	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Acetone	5.3	U	5.3	5.1	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 054_LB-33-15-16

Lab Sample ID: 460-241982-17

Date Collected: 08/31/21 15:25

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.88	U	0.88	0.23	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Carbon tetrachloride	0.88	U	0.88	0.34	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Chlorobenzene	0.88	U	0.88	0.16	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Chloroform	0.88	U	0.88	0.86	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
cis-1,2-Dichloroethene	0.88	U	0.88	0.32	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Ethylbenzene	0.88	U	0.88	0.18	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Methyl tert-butyl ether	0.88	U	0.88	0.45	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
n-Butylbenzene	0.88	U	0.88	0.26	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
N-Propylbenzene	0.88	U *	0.88	0.15	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
sec-Butylbenzene	0.88	U	0.88	0.25	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
tert-Butylbenzene	0.88	U	0.88	0.24	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Tetrachloroethene	0.88	U	0.88	0.27	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Toluene	0.88	U	0.88	0.21	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
trans-1,2-Dichloroethene	0.88	U	0.88	0.22	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Trichloroethene	0.88	U	0.88	0.28	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Vinyl chloride	0.88	U	0.88	0.48	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1
Xylenes, Total	1.8	U	1.8	0.57	ug/Kg	☆	09/02/21 07:56	09/03/21 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 145	09/02/21 07:56	09/03/21 00:09	1
4-Bromofluorobenzene	116		70 - 139	09/02/21 07:56	09/03/21 00:09	1
Dibromofluoromethane (Surr)	115		48 - 150	09/02/21 07:56	09/03/21 00:09	1
Toluene-d8 (Surr)	115		80 - 120	09/02/21 07:56	09/03/21 00:09	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Pentachlorophenol	310	U	310	78	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Naphthalene	380	U	380	6.6	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Acenaphthylene	380	U	380	3.8	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Acenaphthene	380	U	380	11	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Dibenzofuran	380	U	380	5.3	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Fluorene	380	U	380	5.2	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Phenanthrene	10	J	380	6.7	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Anthracene	380	U	380	12	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Fluoranthene	19	J	380	13	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Pyrene	21	J	380	9.4	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Benzo[a]anthracene	18	J	38	13	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Chrysene	11	J	380	6.4	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Benzo[b]fluoranthene	16	J	38	9.8	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Benzo[k]fluoranthene	7.8	J	38	7.4	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Benzo[a]pyrene	13	J	38	10	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Indeno[1,2,3-cd]pyrene	38	U	38	15	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Dibenz(a,h)anthracene	38	U	38	16	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
Benzo[g,h,i]perylene	380	U	380	11	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1
1,4-Dioxane	38	U	38	33	ug/Kg	☆	09/02/21 11:14	09/03/21 00:25	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 054_LB-33-15-16

Lab Sample ID: 460-241982-17

Date Collected: 08/31/21 15:25

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	63		11 - 104	09/02/21 11:14	09/03/21 00:25	1
Phenol-d5 (Surr)	64		15 - 100	09/02/21 11:14	09/03/21 00:25	1
Terphenyl-d14 (Surr)	75		12 - 126	09/02/21 11:14	09/03/21 00:25	1
2,4,6-Tribromophenol (Surr)	53		10 - 123	09/02/21 11:14	09/03/21 00:25	1
2-Fluorophenol (Surr)	62		10 - 105	09/02/21 11:14	09/03/21 00:25	1
2-Fluorobiphenyl	57		14 - 103	09/02/21 11:14	09/03/21 00:25	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.7	U	7.7	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
4,4'-DDE	7.7	U	7.7	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
4,4'-DDT	7.7	U	7.7	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Aldrin	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
alpha-BHC	2.3	U	2.3	0.78	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
beta-BHC	2.3	U	2.3	0.86	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Chlordane (technical)	7.7	U	7.7	19	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
delta-BHC	2.3	U	2.3	0.47	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Endosulfan I	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Endosulfan II	7.7	U	7.7	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Endosulfan sulfate	7.7	U	7.7	0.96	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Endrin	7.7	U	7.7	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Endrin aldehyde	7.7	U	7.7	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Endrin ketone	7.7	U	7.7	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
gamma-BHC (Lindane)	2.3	U	2.3	0.71	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Heptachlor	7.7	U	7.7	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Heptachlor epoxide	7.7	U	7.7	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Methoxychlor	7.7	U	7.7	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
Toxaphene	7.7	U	7.7	28	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1
cis-Chlordane	7.7	U	7.7	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		10 - 150	09/02/21 18:26	09/03/21 08:32	1
DCB Decachlorobiphenyl	94		10 - 150	09/02/21 18:26	09/03/21 08:32	1
Tetrachloro-m-xylene	95		10 - 133	09/02/21 18:26	09/03/21 08:32	1
Tetrachloro-m-xylene	91		10 - 133	09/02/21 18:26	09/03/21 08:32	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Aroclor 1221	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Aroclor 1232	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Aroclor 1242	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Aroclor 1248	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Aroclor 1254	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Aroclor 1260	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Aroclor-1262	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Aroclor 1268	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1
Polychlorinated biphenyls, Total	7.7	U	7.7	20	ug/Kg	☆	09/02/21 17:59	09/03/21 12:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 054_LB-33-15-16

Lab Sample ID: 460-241982-17

Date Collected: 08/31/21 15:25

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98		37 - 150	09/02/21 17:59	09/03/21 12:33	1
DCB Decachlorobiphenyl	100		37 - 150	09/02/21 17:59	09/03/21 12:33	1
Tetrachloro-m-xylene	92		54 - 150	09/02/21 17:59	09/03/21 12:33	1
Tetrachloro-m-xylene	89		54 - 150	09/02/21 17:59	09/03/21 12:33	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	4.0	ug/Kg	☆	09/03/21 00:14	09/07/21 12:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	115		65 - 150	09/03/21 00:14	09/07/21 12:02	1
2,4-Dichlorophenylacetic acid	105		65 - 150	09/03/21 00:14	09/07/21 12:02	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluoroheptanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorooctanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorononanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorodecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorotridecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorotetradecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorobutanesulfonic acid	2.21	U	2.21	0.44	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorohexanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorooctanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
NEtFOSAA	2.21	U	2.21	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
NMeFOSAA	2.21	U	2.21	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluoroheptanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorodecanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorooctanesulfonamide	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorobutanoic acid	2.21	U	2.21	0.88	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluoroundecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluorododecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
6:2 Fluorotelomer sulfonic acid	2.21	U	2.21	0.66	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
8:2 Fluorotelomer sulfonic acid	3.31	U	3.31	0.66	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1
Perfluoropentanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/03/21 08:39	09/06/21 02:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	83		10 - 178	09/03/21 08:39	09/06/21 02:00	1
M2-6:2 FTS	97		10 - 182	09/03/21 08:39	09/06/21 02:00	1
13C5 PFHxA	88		11 - 138	09/03/21 08:39	09/06/21 02:00	1
13C4 PFHpA	87		15 - 139	09/03/21 08:39	09/06/21 02:00	1
13C8 PFOA	95		21 - 133	09/03/21 08:39	09/06/21 02:00	1
13C9 PFNA	92		15 - 145	09/03/21 08:39	09/06/21 02:00	1
13C6 PFDA	92		21 - 134	09/03/21 08:39	09/06/21 02:00	1
13C7 PFUnA	96		15 - 138	09/03/21 08:39	09/06/21 02:00	1
13C2-PFDoDA	91		28 - 126	09/03/21 08:39	09/06/21 02:00	1
13C2 PFTeDA	92		10 - 138	09/03/21 08:39	09/06/21 02:00	1
13C3 PFBS	102		23 - 130	09/03/21 08:39	09/06/21 02:00	1
13C3 PFHxS	89		24 - 136	09/03/21 08:39	09/06/21 02:00	1
13C8 PFOS	95		31 - 130	09/03/21 08:39	09/06/21 02:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 054_LB-33-15-16

Lab Sample ID: 460-241982-17

Date Collected: 08/31/21 15:25

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	62		10 - 172	09/03/21 08:39	09/06/21 02:00	1
d5-NEtFOSAA	73		10 - 176	09/03/21 08:39	09/06/21 02:00	1
13C8 FOSA	91		25 - 135	09/03/21 08:39	09/06/21 02:00	1
13C4 PFBA	88		12 - 137	09/03/21 08:39	09/06/21 02:00	1
13C5 PFPeA	90		12 - 135	09/03/21 08:39	09/06/21 02:00	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.095	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Arsenic	1.5		1.1	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Barium	19.4		2.1	0.15	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Beryllium	0.21	J	0.43	0.061	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Chromium	12.2		2.1	0.18	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Copper	8.3		2.1	0.23	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Manganese	195		4.3	0.43	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Nickel	8.9		2.1	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Lead	7.2		0.64	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Selenium	1.3	U	1.3	0.13	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1
Zinc	20.7		8.5	2.4	mg/Kg	☆	09/08/21 04:22	09/08/21 12:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.069		0.018	0.0043	mg/Kg	☆	09/03/21 04:02	09/03/21 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.2		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	☆	09/16/21 18:20	09/17/21 21:55	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	☆	09/05/21 14:10	09/06/21 19:29	1
Percent Moisture	12.9		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	87.1		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 055_LB-34-5-7

Lab Sample ID: 460-241982-18

Date Collected: 08/31/21 16:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 95.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.85	U	0.85	0.20	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,1-Dichloroethane	0.85	U	0.85	0.18	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,1-Dichloroethene	0.85	U	0.85	0.19	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,2,4-Trimethylbenzene	0.85	U	0.85	0.21	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,2-Dichlorobenzene	0.85	U	0.85	0.31	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,2-Dichloroethane	0.85	U	0.85	0.25	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,3,5-Trimethylbenzene	0.85	U	0.85	0.27	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,3-Dichlorobenzene	0.85	U	0.85	0.31	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,4-Dichlorobenzene	0.85	U	0.85	0.19	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
1,4-Dioxane	17	U	17	7.8	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
2-Butanone (MEK)	5.2		4.3	0.31	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1
Acetone	31		5.1	4.9	ug/Kg	☆	09/02/21 07:57	09/03/21 00:29	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 055_LB-34-5-7

Lab Sample ID: 460-241982-18

Date Collected: 08/31/21 16:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 95.9

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.85	U	0.85	0.22	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Carbon tetrachloride	0.85	U	0.85	0.33	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Chlorobenzene	0.85	U	0.85	0.15	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Chloroform	0.85	U	0.85	0.83	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
cis-1,2-Dichloroethene	0.85	U	0.85	0.30	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Ethylbenzene	0.85	U	0.85	0.17	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Methyl tert-butyl ether	0.85	U	0.85	0.44	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Methylene Chloride	1.7	U	1.7	0.97	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
n-Butylbenzene	0.85	U	0.85	0.25	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
N-Propylbenzene	0.85	U *	0.85	0.15	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
sec-Butylbenzene	0.85	U	0.85	0.25	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
tert-Butylbenzene	0.85	U	0.85	0.23	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Tetrachloroethene	0.85	U	0.85	0.26	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Toluene	0.85	U	0.85	0.20	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
trans-1,2-Dichloroethene	0.85	U	0.85	0.21	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Trichloroethene	0.85	U	0.85	0.27	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Vinyl chloride	0.85	U	0.85	0.46	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1
Xylenes, Total	1.7	U	1.7	0.55	ug/Kg	✱	09/02/21 07:57	09/03/21 00:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		77 - 145	09/02/21 07:57	09/03/21 00:29	1
4-Bromofluorobenzene	116		70 - 139	09/02/21 07:57	09/03/21 00:29	1
Dibromofluoromethane (Surr)	51		48 - 150	09/02/21 07:57	09/03/21 00:29	1
Toluene-d8 (Surr)	113		80 - 120	09/02/21 07:57	09/03/21 00:29	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	340	U	340	13	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
2-Methylphenol	340	U	340	13	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
3 & 4 Methylphenol	340	U	340	22	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Pentachlorophenol	280	U	280	71	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Naphthalene	340	U	340	6.0	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Acenaphthylene	340	U	340	3.5	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Acenaphthene	15	J	340	9.8	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Dibenzofuran	5.7	J	340	4.8	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Fluorene	11	J	340	4.7	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Hexachlorobenzene	34	U	34	16	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Phenanthrene	240	J	340	6.1	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Anthracene	55	J	340	10	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Fluoranthene	380		340	12	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Pyrene	390		340	8.6	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Benzo[a]anthracene	190		34	12	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Chrysene	180	J	340	5.8	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Benzo[b]fluoranthene	250		34	8.9	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Benzo[k]fluoranthene	87		34	6.8	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Benzo[a]pyrene	200		34	9.2	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Indeno[1,2,3-cd]pyrene	120		34	13	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Dibenz(a,h)anthracene	30	J	34	15	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
Benzo[g,h,i]perylene	120	J	340	10	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1
1,4-Dioxane	34	U	34	30	ug/Kg	✱	09/02/21 11:14	09/03/21 00:48	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 055_LB-34-5-7

Lab Sample ID: 460-241982-18

Date Collected: 08/31/21 16:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 95.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	70		11 - 104	09/02/21 11:14	09/03/21 00:48	1
Phenol-d5 (Surr)	64		15 - 100	09/02/21 11:14	09/03/21 00:48	1
Terphenyl-d14 (Surr)	80		12 - 126	09/02/21 11:14	09/03/21 00:48	1
2,4,6-Tribromophenol (Surr)	49		10 - 123	09/02/21 11:14	09/03/21 00:48	1
2-Fluorophenol (Surr)	70		10 - 105	09/02/21 11:14	09/03/21 00:48	1
2-Fluorobiphenyl	63		14 - 103	09/02/21 11:14	09/03/21 00:48	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.0	U	7.0	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
4,4'-DDE	3.3	J	7.0	0.82	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
4,4'-DDT	3.8	J	7.0	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Aldrin	7.0	U	7.0	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
alpha-BHC	2.1	U	2.1	0.71	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
beta-BHC	2.1	U	2.1	0.78	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Chlordane (technical)	70	U	70	17	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
delta-BHC	2.1	U	2.1	0.43	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Dieldrin	2.1	U	2.1	0.91	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Endosulfan I	7.0	U	7.0	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Endosulfan II	7.0	U	7.0	1.8	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Endosulfan sulfate	7.0	U	7.0	0.88	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Endrin	7.0	U	7.0	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Endrin aldehyde	7.0	U	7.0	1.6	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Endrin ketone	7.0	U	7.0	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
gamma-BHC (Lindane)	2.1	U	2.1	0.65	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Heptachlor	7.0	U	7.0	0.82	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Heptachlor epoxide	7.0	U	7.0	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Methoxychlor	7.0	U	7.0	1.6	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
Toxaphene	70	U	70	25	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1
cis-Chlordane	7.0	U	7.0	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 08:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	09/02/21 18:26	09/03/21 08:44	1
DCB Decachlorobiphenyl	81		10 - 150	09/02/21 18:26	09/03/21 08:44	1
Tetrachloro-m-xylene	84		10 - 133	09/02/21 18:26	09/03/21 08:44	1
Tetrachloro-m-xylene	81		10 - 133	09/02/21 18:26	09/03/21 08:44	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Aroclor 1221	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Aroclor 1232	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Aroclor 1242	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Aroclor 1248	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Aroclor 1254	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Aroclor 1260	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Aroclor-1262	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Aroclor 1268	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1
Polychlorinated biphenyls, Total	70	U	70	19	ug/Kg	☆	09/02/21 17:59	09/03/21 12:50	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 055_LB-34-5-7

Lab Sample ID: 460-241982-18

Date Collected: 08/31/21 16:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 95.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	92		37 - 150	09/02/21 17:59	09/03/21 12:50	1
DCB Decachlorobiphenyl	92		37 - 150	09/02/21 17:59	09/03/21 12:50	1
Tetrachloro-m-xylene	86		54 - 150	09/02/21 17:59	09/03/21 12:50	1
Tetrachloro-m-xylene	82		54 - 150	09/02/21 17:59	09/03/21 12:50	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	35	U	35	3.6	ug/Kg	☆	09/03/21 00:14	09/07/21 12:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	165	*	65 - 150	09/03/21 00:14	09/07/21 12:17	1
2,4-Dichlorophenylacetic acid	109		65 - 150	09/03/21 00:14	09/07/21 12:17	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluoroheptanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorooctanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorononanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorodecanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorotridecanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorotetradecanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorobutanesulfonic acid	1.91	U	1.91	0.38	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorohexanesulfonic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorooctanesulfonic acid	0.90		0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
NEtFOSAA	1.91	U	1.91	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
NMeFOSAA	1.91	U	1.91	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluoroheptanesulfonic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorodecanesulfonic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorooctanesulfonamide	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorobutanoic acid	1.91	U	1.91	0.76	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluoroundecanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluorododecanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
8:2 Fluorotelomer sulfonic acid	2.87	U	2.87	0.57	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1
Perfluoropentanoic acid	0.57	U	0.57	0.19	ug/Kg	☆	09/03/21 08:39	09/06/21 02:11	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	92		10 - 178	09/03/21 08:39	09/06/21 02:11	1
M2-6:2 FTS	99		10 - 182	09/03/21 08:39	09/06/21 02:11	1
13C5 PFHxA	93		11 - 138	09/03/21 08:39	09/06/21 02:11	1
13C4 PFHpA	96		15 - 139	09/03/21 08:39	09/06/21 02:11	1
13C8 PFOA	100		21 - 133	09/03/21 08:39	09/06/21 02:11	1
13C9 PFNA	92		15 - 145	09/03/21 08:39	09/06/21 02:11	1
13C6 PFDA	97		21 - 134	09/03/21 08:39	09/06/21 02:11	1
13C7 PFUnA	95		15 - 138	09/03/21 08:39	09/06/21 02:11	1
13C2-PFDoDA	92		28 - 126	09/03/21 08:39	09/06/21 02:11	1
13C2 PFTeDA	91		10 - 138	09/03/21 08:39	09/06/21 02:11	1
13C3 PFBS	99		23 - 130	09/03/21 08:39	09/06/21 02:11	1
13C3 PFHxS	90		24 - 136	09/03/21 08:39	09/06/21 02:11	1
13C8 PFOS	94		31 - 130	09/03/21 08:39	09/06/21 02:11	1
d3-NMeFOSAA	83		10 - 172	09/03/21 08:39	09/06/21 02:11	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 055_LB-34-5-7

Lab Sample ID: 460-241982-18

Date Collected: 08/31/21 16:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 95.9

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	89		10 - 176	09/03/21 08:39	09/06/21 02:11	1
13C8 FOSA	90		25 - 135	09/03/21 08:39	09/06/21 02:11	1
13C4 PFBA	90		12 - 137	09/03/21 08:39	09/06/21 02:11	1
13C5 PFPeA	91		12 - 135	09/03/21 08:39	09/06/21 02:11	1

Method: 537 IDA - EPA 537 Isotope Dilution - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	118		19.1	5.74	ug/Kg	☼	09/03/21 08:39	09/15/21 13:00	10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-6:2 FTS	87		10 - 182				09/03/21 08:39	09/15/21 13:00	10

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.97	U	0.97	0.086	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Arsenic	1.9		0.97	0.097	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Barium	38.2		1.9	0.14	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Beryllium	0.26	J	0.39	0.055	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Cadmium	0.13	J	0.97	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Chromium	11.7		1.9	0.17	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Copper	11.7		1.9	0.21	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Manganese	295		3.9	0.39	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Nickel	9.8		1.9	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Lead	36.5		0.58	0.19	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Selenium	1.2	U	1.2	0.11	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1
Zinc	43.4		7.7	2.2	mg/Kg	☆	09/08/21 04:22	09/08/21 12:51	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.016	0.0037	mg/Kg	☆	09/03/21 04:02	09/03/21 09:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.7		2.0	2.0	mg/Kg			09/13/21 06:50	1
Cr (VI)	2.1	U	2.1	0.88	mg/Kg	☆	09/10/21 12:29	09/10/21 16:00	1
Cyanide, Total	0.25	U	0.25	0.14	mg/Kg	☆	09/05/21 14:10	09/06/21 19:30	1
Percent Moisture	4.1		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	95.9		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 056_LB-34-15-16

Lab Sample ID: 460-241982-19

Date Collected: 08/31/21 16:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.92	U	0.92	0.22	ug/Kg	☆	09/02/21 07:58	09/03/21 09:18	1
1,1-Dichloroethane	0.92	U	0.92	0.19	ug/Kg	☆	09/02/21 07:58	09/03/21 09:18	1
1,1-Dichloroethene	0.92	U	0.92	0.21	ug/Kg	☆	09/02/21 07:58	09/03/21 09:18	1
1,2,4-Trimethylbenzene	0.92	U	0.92	0.23	ug/Kg	☆	09/02/21 07:58	09/03/21 09:18	1
1,2-Dichlorobenzene	0.92	U	0.92	0.33	ug/Kg	☆	09/02/21 07:58	09/03/21 09:18	1
1,2-Dichloroethane	0.92	U	0.92	0.27	ug/Kg	☆	09/02/21 07:58	09/03/21 09:18	1
1,3,5-Trimethylbenzene	0.92	U	0.92	0.29	ug/Kg	☆	09/02/21 07:58	09/03/21 09:18	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 056_LB-34-15-16

Lab Sample ID: 460-241982-19

Date Collected: 08/31/21 16:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.92	U	0.92	0.34	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
1,4-Dichlorobenzene	0.92	U	0.92	0.21	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
1,4-Dioxane	18	U	18	8.5	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
2-Butanone (MEK)	4.6	U	4.6	0.34	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Acetone	7.9		5.5	5.3	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Benzene	0.92	U	0.92	0.24	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Carbon tetrachloride	0.92	U	0.92	0.36	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Chlorobenzene	0.92	U	0.92	0.16	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Chloroform	0.92	U	0.92	0.90	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
cis-1,2-Dichloroethene	0.92	U	0.92	0.33	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Ethylbenzene	0.92	U	0.92	0.18	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Methyl tert-butyl ether	0.92	U	0.92	0.47	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Methylene Chloride	1.8	U	1.8	1.1	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
n-Butylbenzene	0.92	U	0.92	0.27	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
N-Propylbenzene	0.92	U	0.92	0.16	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
sec-Butylbenzene	0.92	U	0.92	0.27	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
tert-Butylbenzene	0.92	U	0.92	0.25	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Tetrachloroethene	0.92	U	0.92	0.28	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Toluene	0.92	U	0.92	0.22	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
trans-1,2-Dichloroethene	0.92	U	0.92	0.23	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Trichloroethene	0.92	U	0.92	0.30	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Vinyl chloride	0.92	U	0.92	0.50	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1
Xylenes, Total	1.8	U	1.8	0.59	ug/Kg	✱	09/02/21 07:58	09/03/21 09:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		77 - 145	09/02/21 07:58	09/03/21 09:18	1
4-Bromofluorobenzene	116		70 - 139	09/02/21 07:58	09/03/21 09:18	1
Dibromofluoromethane (Surr)	110		48 - 150	09/02/21 07:58	09/03/21 09:18	1
Toluene-d8 (Surr)	115		80 - 120	09/02/21 07:58	09/03/21 09:18	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	15	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
2-Methylphenol	390	U	390	15	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
3 & 4 Methylphenol	390	U	390	25	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Pentachlorophenol	320	U	320	81	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Naphthalene	390	U	390	6.8	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Acenaphthylene	390	U	390	4.0	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Acenaphthene	390	U	390	11	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Dibenzofuran	390	U	390	5.5	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Fluorene	390	U	390	5.4	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Hexachlorobenzene	39	U	39	19	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Phenanthrene	390	U	390	6.9	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Anthracene	390	U	390	12	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Fluoranthene	390	U	390	14	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Pyrene	390	U	390	9.8	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Benzo[a]anthracene	39	U	39	14	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Chrysene	390	U	390	6.7	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Benzo[b]fluoranthene	39	U	39	10	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Benzo[k]fluoranthene	39	U	39	7.7	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 056_LB-34-15-16

Lab Sample ID: 460-241982-19

Date Collected: 08/31/21 16:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	39	U	39	11	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Indeno[1,2,3-cd]pyrene	39	U	39	15	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
Benzo[g,h,i]perylene	390	U	390	12	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1
1,4-Dioxane	39	U	39	35	ug/Kg	✱	09/02/21 11:14	09/03/21 01:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	70		11 - 104	09/02/21 11:14	09/03/21 01:11	1
Phenol-d5 (Surr)	70		15 - 100	09/02/21 11:14	09/03/21 01:11	1
Terphenyl-d14 (Surr)	80		12 - 126	09/02/21 11:14	09/03/21 01:11	1
2,4,6-Tribromophenol (Surr)	47		10 - 123	09/02/21 11:14	09/03/21 01:11	1
2-Fluorophenol (Surr)	68		10 - 105	09/02/21 11:14	09/03/21 01:11	1
2-Fluorobiphenyl	62		14 - 103	09/02/21 11:14	09/03/21 01:11	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.0	U	8.0	1.4	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
4,4'-DDE	8.0	U	8.0	0.94	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
4,4'-DDT	8.0	U	8.0	1.5	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Aldrin	8.0	U	8.0	1.2	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
alpha-BHC	2.4	U	2.4	0.81	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
beta-BHC	2.4	U	2.4	0.90	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Chlordane (technical)	80	U	80	19	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Endosulfan I	8.0	U	8.0	1.2	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Endosulfan II	8.0	U	8.0	2.1	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Endosulfan sulfate	8.0	U	8.0	1.0	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Endrin	8.0	U	8.0	1.1	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Endrin aldehyde	8.0	U	8.0	1.9	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Endrin ketone	8.0	U	8.0	1.6	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
gamma-BHC (Lindane)	2.4	U	2.4	0.74	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Heptachlor	8.0	U	8.0	0.94	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Heptachlor epoxide	8.0	U	8.0	1.2	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Methoxychlor	8.0	U	8.0	1.8	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
Toxaphene	80	U	80	29	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1
cis-Chlordane	8.0	U	8.0	1.3	ug/Kg	✱	09/02/21 18:26	09/03/21 08:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		10 - 150	09/02/21 18:26	09/03/21 08:57	1
DCB Decachlorobiphenyl	82		10 - 150	09/02/21 18:26	09/03/21 08:57	1
Tetrachloro-m-xylene	82		10 - 133	09/02/21 18:26	09/03/21 08:57	1
Tetrachloro-m-xylene	81		10 - 133	09/02/21 18:26	09/03/21 08:57	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1
Aroclor 1221	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1
Aroclor 1232	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1
Aroclor 1242	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 056_LB-34-15-16

Lab Sample ID: 460-241982-19

Date Collected: 08/31/21 16:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1
Aroclor 1254	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1
Aroclor 1260	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1
Aroclor-1262	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1
Aroclor 1268	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1
Polychlorinated biphenyls, Total	80	U	80	21	ug/Kg	✱	09/02/21 17:59	09/03/21 13:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		37 - 150	09/02/21 17:59	09/03/21 13:07	1
DCB Decachlorobiphenyl	90		37 - 150	09/02/21 17:59	09/03/21 13:07	1
Tetrachloro-m-xylene	85		54 - 150	09/02/21 17:59	09/03/21 13:07	1
Tetrachloro-m-xylene	80		54 - 150	09/02/21 17:59	09/03/21 13:07	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.1	ug/Kg	✱	09/03/21 00:14	09/07/21 12:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	119		65 - 150	09/03/21 00:14	09/07/21 12:31	1
2,4-Dichlorophenylacetic acid	107		65 - 150	09/03/21 00:14	09/07/21 12:31	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluoroheptanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorooctanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorononanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorodecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorotridecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorotetradecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorobutanesulfonic acid	2.25	U	2.25	0.45	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorohexanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorooctanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
NEtFOSAA	2.25	U	2.25	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
NMeFOSAA	2.25	U	2.25	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluoroheptanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorodecanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorooctanesulfonamide	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorobutanoic acid	2.25	U	2.25	0.90	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluoroundecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluorododecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
6:2 Fluorotelomer sulfonic acid	2.25	U	2.25	0.68	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
8:2 Fluorotelomer sulfonic acid	3.38	U	3.38	0.68	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1
Perfluoropentanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/03/21 08:39	09/06/21 02:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	95		10 - 178	09/03/21 08:39	09/06/21 02:22	1
M2-6:2 FTS	105		10 - 182	09/03/21 08:39	09/06/21 02:22	1
13C5 PFHxA	105		11 - 138	09/03/21 08:39	09/06/21 02:22	1
13C4 PFHpA	106		15 - 139	09/03/21 08:39	09/06/21 02:22	1
13C8 PFOA	103		21 - 133	09/03/21 08:39	09/06/21 02:22	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 056_LB-34-15-16

Lab Sample ID: 460-241982-19

Date Collected: 08/31/21 16:05

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.7

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C9 PFNA	100		15 - 145	09/03/21 08:39	09/06/21 02:22	1
13C6 PFDA	99		21 - 134	09/03/21 08:39	09/06/21 02:22	1
13C7 PFUnA	103		15 - 138	09/03/21 08:39	09/06/21 02:22	1
13C2-PFDoDA	97		28 - 126	09/03/21 08:39	09/06/21 02:22	1
13C2 PFTeDA	96		10 - 138	09/03/21 08:39	09/06/21 02:22	1
13C3 PFBS	114		23 - 130	09/03/21 08:39	09/06/21 02:22	1
13C3 PFHxS	103		24 - 136	09/03/21 08:39	09/06/21 02:22	1
13C8 PFOS	99		31 - 130	09/03/21 08:39	09/06/21 02:22	1
d3-NMeFOSAA	81		10 - 172	09/03/21 08:39	09/06/21 02:22	1
d5-NEtFOSAA	88		10 - 176	09/03/21 08:39	09/06/21 02:22	1
13C8 FOSA	98		25 - 135	09/03/21 08:39	09/06/21 02:22	1
13C4 PFBA	96		12 - 137	09/03/21 08:39	09/06/21 02:22	1
13C5 PFPeA	100		12 - 135	09/03/21 08:39	09/06/21 02:22	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.099	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Arsenic	1.4		1.1	0.11	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Barium	20.5		2.2	0.16	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Beryllium	0.19	J	0.45	0.064	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Chromium	12.3		2.2	0.19	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Copper	6.9		2.2	0.25	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Manganese	104		4.5	0.45	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Nickel	9.1		2.2	0.22	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Lead	3.4		0.67	0.22	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1
Zinc	18.4		8.9	2.6	mg/Kg	✱	09/08/21 04:22	09/08/21 12:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.019	0.0044	mg/Kg	✱	09/03/21 04:02	09/03/21 09:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.3		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/16/21 18:20	09/17/21 21:55	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	✱	09/05/21 14:10	09/06/21 19:31	1
Percent Moisture	16.3		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	83.7		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 057_LB-46-15-16

Lab Sample ID: 460-241982-20

Date Collected: 08/31/21 16:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 75.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.97	U	0.97	0.23	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
1,1-Dichloroethane	0.97	U	0.97	0.20	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
1,1-Dichloroethene	0.97	U	0.97	0.22	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
1,2,4-Trimethylbenzene	0.41	J	0.97	0.24	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 057_LB-46-15-16

Lab Sample ID: 460-241982-20

Date Collected: 08/31/21 16:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 75.2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.97	U	0.97	0.35	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
1,2-Dichloroethane	0.97	U	0.97	0.29	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
1,3,5-Trimethylbenzene	0.97	U	0.97	0.30	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
1,3-Dichlorobenzene	0.97	U	0.97	0.35	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
1,4-Dichlorobenzene	0.97	U	0.97	0.22	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
1,4-Dioxane	19	U	19	8.9	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
2-Butanone (MEK)	4.8	U	4.8	0.36	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Acetone	6.2		5.8	5.5	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Benzene	0.97	U	0.97	0.25	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Carbon tetrachloride	0.97	U	0.97	0.37	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Chlorobenzene	0.97	U	0.97	0.17	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Chloroform	0.97	U	0.97	0.94	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
cis-1,2-Dichloroethene	0.97	U	0.97	0.35	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Ethylbenzene	0.97	U	0.97	0.19	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Methyl tert-butyl ether	0.97	U	0.97	0.50	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
n-Butylbenzene	0.97	U	0.97	0.28	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
N-Propylbenzene	0.97	U *	0.97	0.17	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
sec-Butylbenzene	0.97	U	0.97	0.28	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
tert-Butylbenzene	0.97	U	0.97	0.27	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Tetrachloroethene	0.97	U	0.97	0.30	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Toluene	0.97	U	0.97	0.23	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
trans-1,2-Dichloroethene	0.97	U	0.97	0.24	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Trichloroethene	0.97	U	0.97	0.31	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Vinyl chloride	0.97	U	0.97	0.53	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1
Xylenes, Total	1.9	U	1.9	0.62	ug/Kg	✱	09/02/21 07:59	09/03/21 01:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		77 - 145	09/02/21 07:59	09/03/21 01:09	1
4-Bromofluorobenzene	115		70 - 139	09/02/21 07:59	09/03/21 01:09	1
Dibromofluoromethane (Surr)	112		48 - 150	09/02/21 07:59	09/03/21 01:09	1
Toluene-d8 (Surr)	112		80 - 120	09/02/21 07:59	09/03/21 01:09	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	440	U	440	16	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
2-Methylphenol	440	U	440	16	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
3 & 4 Methylphenol	440	U	440	27	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Pentachlorophenol	350	U	350	90	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Naphthalene	22	J	440	7.6	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Acenaphthylene	440	U	440	4.4	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Acenaphthene	440	U	440	13	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Dibenzofuran	440	U	440	6.2	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Fluorene	440	U	440	6.0	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Hexachlorobenzene	44	U	44	21	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Phenanthrene	25	J	440	7.7	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Anthracene	440	U	440	13	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Fluoranthene	440	U	440	15	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Pyrene	13	J	440	11	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1
Benzo[a]anthracene	44	U	44	15	ug/Kg	✱	09/02/21 11:14	09/03/21 01:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 057_LB-46-15-16

Lab Sample ID: 460-241982-20

Date Collected: 08/31/21 16:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 75.2

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	440	U	440	7.4	ug/Kg	☆	09/02/21 11:14	09/03/21 01:33	1
Benzo[b]fluoranthene	44	U	44	11	ug/Kg	☆	09/02/21 11:14	09/03/21 01:33	1
Benzo[k]fluoranthene	44	U	44	8.6	ug/Kg	☆	09/02/21 11:14	09/03/21 01:33	1
Benzo[a]pyrene	44	U	44	12	ug/Kg	☆	09/02/21 11:14	09/03/21 01:33	1
Indeno[1,2,3-cd]pyrene	44	U	44	17	ug/Kg	☆	09/02/21 11:14	09/03/21 01:33	1
Dibenz(a,h)anthracene	44	U	44	19	ug/Kg	☆	09/02/21 11:14	09/03/21 01:33	1
Benzo[g,h,i]perylene	440	U	440	13	ug/Kg	☆	09/02/21 11:14	09/03/21 01:33	1
1,4-Dioxane	44	U	44	38	ug/Kg	☆	09/02/21 11:14	09/03/21 01:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		11 - 104	09/02/21 11:14	09/03/21 01:33	1
Phenol-d5 (Surr)	70		15 - 100	09/02/21 11:14	09/03/21 01:33	1
Terphenyl-d14 (Surr)	79		12 - 126	09/02/21 11:14	09/03/21 01:33	1
2,4,6-Tribromophenol (Surr)	62		10 - 123	09/02/21 11:14	09/03/21 01:33	1
2-Fluorophenol (Surr)	71		10 - 105	09/02/21 11:14	09/03/21 01:33	1
2-Fluorobiphenyl	64		14 - 103	09/02/21 11:14	09/03/21 01:33	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.9	U	8.9	1.5	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
4,4'-DDE	8.9	U	8.9	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
4,4'-DDT	8.9	U	8.9	1.6	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Aldrin	8.9	U	8.9	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
alpha-BHC	2.7	U	2.7	0.90	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
beta-BHC	2.7	U	2.7	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Chlordane (technical)	89	U	89	22	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
delta-BHC	2.7	U	2.7	0.54	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Dieldrin	2.7	U	2.7	1.2	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Endosulfan I	8.9	U	8.9	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Endosulfan II	8.9	U	8.9	2.3	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Endosulfan sulfate	8.9	U	8.9	1.1	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Endrin	8.9	U	8.9	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Endrin aldehyde	8.9	U	8.9	2.1	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Endrin ketone	8.9	U	8.9	1.7	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
gamma-BHC (Lindane)	2.7	U	2.7	0.82	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Heptachlor	8.9	U	8.9	1.0	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Heptachlor epoxide	8.9	U	8.9	1.3	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Methoxychlor	8.9	U	8.9	2.0	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
Toxaphene	89	U	89	32	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1
cis-Chlordane	8.9	U	8.9	1.4	ug/Kg	☆	09/02/21 18:26	09/03/21 09:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		10 - 150	09/02/21 18:26	09/03/21 09:09	1
DCB Decachlorobiphenyl	83		10 - 150	09/02/21 18:26	09/03/21 09:09	1
Tetrachloro-m-xylene	80		10 - 133	09/02/21 18:26	09/03/21 09:09	1
Tetrachloro-m-xylene	79		10 - 133	09/02/21 18:26	09/03/21 09:09	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 057_LB-46-15-16

Lab Sample ID: 460-241982-20

Date Collected: 08/31/21 16:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 75.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1
Aroclor 1232	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1
Aroclor 1242	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1
Aroclor 1248	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1
Aroclor 1254	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1
Aroclor 1260	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1
Aroclor-1262	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1
Aroclor 1268	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1
Polychlorinated biphenyls, Total	89	U	89	24	ug/Kg	☆	09/02/21 17:59	09/03/21 13:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		37 - 150	09/02/21 17:59	09/03/21 13:24	1
DCB Decachlorobiphenyl	97		37 - 150	09/02/21 17:59	09/03/21 13:24	1
Tetrachloro-m-xylene	90		54 - 150	09/02/21 17:59	09/03/21 13:24	1
Tetrachloro-m-xylene	86		54 - 150	09/02/21 17:59	09/03/21 13:24	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	44	U	44	4.6	ug/Kg	☆	09/03/21 00:14	09/07/21 14:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	116		65 - 150	09/03/21 00:14	09/07/21 14:02	1
2,4-Dichlorophenylacetic acid	99		65 - 150	09/03/21 00:14	09/07/21 14:02	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluoroheptanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorooctanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorononanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorodecanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorotridecanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorotetradecanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorobutanesulfonic acid	2.48	U	2.48	0.50	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorohexanesulfonic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorooctanesulfonic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
NEtFOSAA	2.48	U	2.48	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
NMeFOSAA	2.48	U	2.48	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluoroheptanesulfonic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorodecanesulfonic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorooctanesulfonamide	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorobutanoic acid	2.48	U	2.48	0.99	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluoroundecanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluorododecanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
6:2 Fluorotelomer sulfonic acid	2.48	U	2.48	0.75	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
8:2 Fluorotelomer sulfonic acid	3.73	U	3.73	0.75	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1
Perfluoropentanoic acid	0.75	U	0.75	0.25	ug/Kg	☆	09/03/21 08:39	09/06/21 02:33	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	82		10 - 178	09/03/21 08:39	09/06/21 02:33	1
M2-6:2 FTS	91		10 - 182	09/03/21 08:39	09/06/21 02:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 057_LB-46-15-16

Lab Sample ID: 460-241982-20

Date Collected: 08/31/21 16:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 75.2

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	80		11 - 138	09/03/21 08:39	09/06/21 02:33	1
13C4 PFHpA	82		15 - 139	09/03/21 08:39	09/06/21 02:33	1
13C8 PFOA	89		21 - 133	09/03/21 08:39	09/06/21 02:33	1
13C9 PFNA	90		15 - 145	09/03/21 08:39	09/06/21 02:33	1
13C6 PFDA	86		21 - 134	09/03/21 08:39	09/06/21 02:33	1
13C7 PFUnA	86		15 - 138	09/03/21 08:39	09/06/21 02:33	1
13C2-PFDoDA	88		28 - 126	09/03/21 08:39	09/06/21 02:33	1
13C2 PFTeDA	85		10 - 138	09/03/21 08:39	09/06/21 02:33	1
13C3 PFBS	101		23 - 130	09/03/21 08:39	09/06/21 02:33	1
13C3 PFHxS	84		24 - 136	09/03/21 08:39	09/06/21 02:33	1
13C8 PFOS	92		31 - 130	09/03/21 08:39	09/06/21 02:33	1
d3-NMeFOSAA	36		10 - 172	09/03/21 08:39	09/06/21 02:33	1
d5-NEtFOSAA	40		10 - 176	09/03/21 08:39	09/06/21 02:33	1
13C8 FOSA	86		25 - 135	09/03/21 08:39	09/06/21 02:33	1
13C4 PFBA	85		12 - 137	09/03/21 08:39	09/06/21 02:33	1
13C5 PFPeA	85		12 - 135	09/03/21 08:39	09/06/21 02:33	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Arsenic	1.5		1.2	0.12	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Barium	14.9		2.5	0.18	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Beryllium	0.31	J	0.49	0.070	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Cadmium	1.2	U	1.2	0.14	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Chromium	11.5		2.5	0.21	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Copper	8.1		2.5	0.27	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Manganese	389		4.9	0.50	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Nickel	10.6		2.5	0.24	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Lead	5.1		0.74	0.25	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Selenium	1.5	U	1.5	0.15	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1
Zinc	19.8		9.8	2.8	mg/Kg	✱	09/08/21 04:22	09/08/21 12:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.021	0.0048	mg/Kg	✱	09/03/21 04:02	09/03/21 09:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.5		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.7	U	2.7	1.1	mg/Kg	✱	09/16/21 18:20	09/17/21 21:55	1
Cyanide, Total	0.30	U	0.30	0.16	mg/Kg	✱	09/05/21 14:10	09/06/21 19:31	1
Percent Moisture	24.8		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	75.2		1.0	1.0	%			09/03/21 09:57	1

Client Sample ID: 058_LB-45-11-13

Lab Sample ID: 460-241982-21

Date Collected: 08/31/21 16:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 70.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.5	U	1.5	0.35	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 058_LB-45-11-13

Lab Sample ID: 460-241982-21

Date Collected: 08/31/21 16:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 70.8

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	1.5	U	1.5	0.31	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
1,1-Dichloroethene	1.5	U	1.5	0.34	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
1,2,4-Trimethylbenzene	0.37	J	1.5	0.37	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
1,2-Dichlorobenzene	1.5	U	1.5	0.55	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
1,2-Dichloroethane	1.5	U	1.5	0.45	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
1,3,5-Trimethylbenzene	1.5	U	1.5	0.48	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
1,3-Dichlorobenzene	1.5	U	1.5	0.55	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
1,4-Dichlorobenzene	1.5	U	1.5	0.34	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
1,4-Dioxane	30	U *	30	14	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
2-Butanone (MEK)	46		7.6	0.56	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Acetone	250		9.1	8.7	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Benzene	1.5	U	1.5	0.39	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Carbon tetrachloride	1.5	U	1.5	0.59	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Chlorobenzene	1.5	U	1.5	0.27	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Chloroform	1.5	U	1.5	1.5	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
cis-1,2-Dichloroethene	1.5	U	1.5	0.54	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Ethylbenzene	1.5	U	1.5	0.30	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Methyl tert-butyl ether	0.77	J	1.5	0.77	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Methylene Chloride	2.1	J	3.0	1.7	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
n-Butylbenzene	1.5	U	1.5	0.45	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
N-Propylbenzene	1.5	U	1.5	0.26	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
sec-Butylbenzene	1.5	U	1.5	0.44	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
tert-Butylbenzene	1.5	U	1.5	0.42	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Tetrachloroethene	1.5	U	1.5	0.46	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Toluene	4.2		1.5	0.35	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
trans-1,2-Dichloroethene	1.5	U	1.5	0.37	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Trichloroethene	1.5	U	1.5	0.49	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Vinyl chloride	1.5	U	1.5	0.83	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1
Xylenes, Total	3.0	U	3.0	0.97	ug/Kg	✱	09/02/21 08:00	09/03/21 09:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		77 - 145	09/02/21 08:00	09/03/21 09:39	1
4-Bromofluorobenzene	105		70 - 139	09/02/21 08:00	09/03/21 09:39	1
Dibromofluoromethane (Surr)	116		48 - 150	09/02/21 08:00	09/03/21 09:39	1
Toluene-d8 (Surr)	117		80 - 120	09/02/21 08:00	09/03/21 09:39	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	470	U	470	17	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
2-Methylphenol	470	U	470	17	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
3 & 4 Methylphenol	470	U	470	29	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Pentachlorophenol	380	U	380	96	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Naphthalene	470	U	470	8.1	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Acenaphthylene	470	U	470	4.7	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Acenaphthene	470	U	470	13	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Dibenzofuran	470	U	470	6.6	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Fluorene	470	U	470	6.3	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Hexachlorobenzene	47	U	47	22	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Phenanthrene	470	U	470	8.2	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Anthracene	470	U	470	14	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 058_LB-45-11-13

Lab Sample ID: 460-241982-21

Date Collected: 08/31/21 16:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 70.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	470	U	470	16	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Pyrene	470	U	470	12	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Benzo[a]anthracene	47	U	47	16	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Chrysene	470	U	470	7.9	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Benzo[b]fluoranthene	47	U	47	12	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Benzo[k]fluoranthene	47	U	47	9.2	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Benzo[a]pyrene	47	U	47	12	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Indeno[1,2,3-cd]pyrene	47	U	47	18	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Dibenz(a,h)anthracene	47	U	47	20	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
Benzo[g,h,i]perylene	470	U	470	14	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1
1,4-Dioxane	47	U	47	41	ug/Kg	✱	09/02/21 11:14	09/03/21 01:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		11 - 104	09/02/21 11:14	09/03/21 01:56	1
Phenol-d5 (Surr)	62		15 - 100	09/02/21 11:14	09/03/21 01:56	1
Terphenyl-d14 (Surr)	77		12 - 126	09/02/21 11:14	09/03/21 01:56	1
2,4,6-Tribromophenol (Surr)	62		10 - 123	09/02/21 11:14	09/03/21 01:56	1
2-Fluorophenol (Surr)	59		10 - 105	09/02/21 11:14	09/03/21 01:56	1
2-Fluorobiphenyl	56		14 - 103	09/02/21 11:14	09/03/21 01:56	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	9.5	U	9.5	1.6	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
4,4'-DDE	9.5	U	9.5	1.1	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
4,4'-DDT	9.5	U	9.5	1.7	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Aldrin	9.5	U	9.5	1.4	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
alpha-BHC	2.8	U	2.8	0.96	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
beta-BHC	2.8	U	2.8	1.1	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Chlordane (technical)	95	U	95	23	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
delta-BHC	2.8	U	2.8	0.58	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Dieldrin	2.8	U	2.8	1.2	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Endosulfan I	9.5	U	9.5	1.4	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Endosulfan II	9.5	U	9.5	2.4	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Endosulfan sulfate	9.5	U	9.5	1.2	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Endrin	9.5	U	9.5	1.4	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Endrin aldehyde	9.5	U	9.5	2.2	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Endrin ketone	9.5	U	9.5	1.8	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
gamma-BHC (Lindane)	2.8	U	2.8	0.88	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Heptachlor	9.5	U	9.5	1.1	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Heptachlor epoxide	9.5	U	9.5	1.4	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Methoxychlor	9.5	U	9.5	2.2	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
Toxaphene	95	U	95	34	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1
cis-Chlordane	9.5	U	9.5	1.5	ug/Kg	✱	09/02/21 18:26	09/03/21 09:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		10 - 150	09/02/21 18:26	09/03/21 09:21	1
DCB Decachlorobiphenyl	82		10 - 150	09/02/21 18:26	09/03/21 09:21	1
Tetrachloro-m-xylene	79		10 - 133	09/02/21 18:26	09/03/21 09:21	1
Tetrachloro-m-xylene	79		10 - 133	09/02/21 18:26	09/03/21 09:21	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 058_LB-45-11-13

Lab Sample ID: 460-241982-21

Date Collected: 08/31/21 16:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 70.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Aroclor 1221	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Aroclor 1232	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Aroclor 1242	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Aroclor 1248	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Aroclor 1254	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Aroclor 1260	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Aroclor-1262	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Aroclor 1268	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1
Polychlorinated biphenyls, Total	95	U	95	25	ug/Kg	☆	09/02/21 17:59	09/03/21 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		37 - 150	09/02/21 17:59	09/03/21 13:41	1
DCB Decachlorobiphenyl	90		37 - 150	09/02/21 17:59	09/03/21 13:41	1
Tetrachloro-m-xylene	83		54 - 150	09/02/21 17:59	09/03/21 13:41	1
Tetrachloro-m-xylene	80		54 - 150	09/02/21 17:59	09/03/21 13:41	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	47	U	47	4.9	ug/Kg	☆	09/03/21 00:14	09/07/21 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	111		65 - 150	09/03/21 00:14	09/07/21 14:17	1
2,4-Dichlorophenylacetic acid	99		65 - 150	09/03/21 00:14	09/07/21 14:17	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluoroheptanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorooctanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorononanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorodecanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorotridecanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorotetradecanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorobutanesulfonic acid	2.77	U	2.77	0.55	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorohexanesulfonic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorooctanesulfonic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
NEtFOSAA	2.77	U	2.77	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
NMeFOSAA	2.77	U	2.77	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluoroheptanesulfonic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorodecanesulfonic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorooctanesulfonamide	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorobutanoic acid	2.77	U	2.77	1.11	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluoroundecanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluorododecanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
6:2 Fluorotelomer sulfonic acid	2.77	U	2.77	0.83	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
8:2 Fluorotelomer sulfonic acid	4.15	U	4.15	0.83	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1
Perfluoropentanoic acid	0.83	U	0.83	0.28	ug/Kg	☆	09/03/21 08:39	09/06/21 02:44	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	95		10 - 178	09/03/21 08:39	09/06/21 02:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 058_LB-45-11-13

Lab Sample ID: 460-241982-21

Date Collected: 08/31/21 16:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 70.8

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	105		10 - 182	09/03/21 08:39	09/06/21 02:44	1
13C5 PFHxA	94		11 - 138	09/03/21 08:39	09/06/21 02:44	1
13C4 PFHpA	94		15 - 139	09/03/21 08:39	09/06/21 02:44	1
13C8 PFOA	100		21 - 133	09/03/21 08:39	09/06/21 02:44	1
13C9 PFNA	97		15 - 145	09/03/21 08:39	09/06/21 02:44	1
13C6 PFDA	97		21 - 134	09/03/21 08:39	09/06/21 02:44	1
13C7 PFUnA	92		15 - 138	09/03/21 08:39	09/06/21 02:44	1
13C2-PFDoDA	89		28 - 126	09/03/21 08:39	09/06/21 02:44	1
13C2 PFTeDA	91		10 - 138	09/03/21 08:39	09/06/21 02:44	1
13C3 PFBS	106		23 - 130	09/03/21 08:39	09/06/21 02:44	1
13C3 PFHxS	93		24 - 136	09/03/21 08:39	09/06/21 02:44	1
13C8 PFOS	97		31 - 130	09/03/21 08:39	09/06/21 02:44	1
d3-NMeFOSAA	77		10 - 172	09/03/21 08:39	09/06/21 02:44	1
d5-NEtFOSAA	84		10 - 176	09/03/21 08:39	09/06/21 02:44	1
13C8 FOSA	80		25 - 135	09/03/21 08:39	09/06/21 02:44	1
13C4 PFBA	90		12 - 137	09/03/21 08:39	09/06/21 02:44	1
13C5 PFPeA	90		12 - 135	09/03/21 08:39	09/06/21 02:44	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.4	U	1.4	0.12	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Arsenic	2.1		1.4	0.14	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Barium	17.4		2.7	0.20	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Beryllium	0.38	J	0.54	0.077	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Cadmium	1.4	U	1.4	0.15	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Chromium	11.5		2.7	0.24	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Copper	6.9		2.7	0.30	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Manganese	107		5.4	0.55	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Nickel	9.6		2.7	0.26	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Lead	3.9		0.81	0.27	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Selenium	1.7	U	1.7	0.16	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1
Zinc	23.6		10.9	3.1	mg/Kg	✱	09/09/21 04:07	09/09/21 10:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	J	0.023	0.0053	mg/Kg	✱	09/03/21 04:02	09/03/21 09:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.5		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.8	U	2.8	1.2	mg/Kg	✱	09/16/21 18:20	09/17/21 22:45	1
Cyanide, Total	0.34	U	0.34	0.19	mg/Kg	✱	09/05/21 15:08	09/06/21 19:34	1
Percent Moisture	29.2		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	70.8		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 059_LB-45-15-16

Lab Sample ID: 460-241982-22

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 72.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.25	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,1-Dichloroethane	1.1	U	1.1	0.22	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,1-Dichloroethene	1.1	U	1.1	0.24	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,2,4-Trimethylbenzene	1.1	U	1.1	0.27	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,2-Dichlorobenzene	1.1	U	1.1	0.39	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,2-Dichloroethane	1.1	U	1.1	0.32	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,3,5-Trimethylbenzene	1.1	U	1.1	0.34	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,3-Dichlorobenzene	1.1	U	1.1	0.40	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,4-Dichlorobenzene	1.1	U	1.1	0.24	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
1,4-Dioxane	22	U	22	9.9	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
2-Butanone (MEK)	8.1		5.4	0.40	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Acetone	41		6.5	6.2	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Benzene	1.1	U	1.1	0.28	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Carbon tetrachloride	1.1	U	1.1	0.42	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Chlorobenzene	1.1	U	1.1	0.19	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Chloroform	1.1	U	1.1	1.1	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
cis-1,2-Dichloroethene	1.1	U	1.1	0.39	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Ethylbenzene	1.1	U	1.1	0.22	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Methyl tert-butyl ether	0.63	J	1.1	0.55	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Methylene Chloride	2.2	U	2.2	1.2	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
n-Butylbenzene	1.1	U	1.1	0.32	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
N-Propylbenzene	1.1	U *	1.1	0.19	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
sec-Butylbenzene	1.1	U	1.1	0.31	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
tert-Butylbenzene	1.1	U	1.1	0.30	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Tetrachloroethene	1.1	U	1.1	0.33	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Toluene	1.3		1.1	0.25	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
trans-1,2-Dichloroethene	1.1	U	1.1	0.27	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Trichloroethene	1.1	U	1.1	0.35	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Vinyl chloride	1.1	U	1.1	0.59	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1
Xylenes, Total	2.2	U	2.2	0.70	ug/Kg	☆	09/02/21 08:00	09/03/21 01:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		77 - 145	09/02/21 08:00	09/03/21 01:50	1
4-Bromofluorobenzene	116		70 - 139	09/02/21 08:00	09/03/21 01:50	1
Dibromofluoromethane (Surr)	119		48 - 150	09/02/21 08:00	09/03/21 01:50	1
Toluene-d8 (Surr)	116		80 - 120	09/02/21 08:00	09/03/21 01:50	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	450	U	450	17	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
2-Methylphenol	450	U	450	17	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
3 & 4 Methylphenol	450	U	450	28	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
Pentachlorophenol	370	U	370	93	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
Naphthalene	450	U	450	7.9	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
Acenaphthylene	450	U	450	4.6	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
Acenaphthene	450	U	450	13	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
Dibenzofuran	450	U	450	6.4	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
Fluorene	450	U	450	6.2	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
Hexachlorobenzene	45	U	45	22	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1
Phenanthrene	450	U	450	8.0	ug/Kg	☆	09/02/21 11:14	09/03/21 02:18	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 059_LB-45-15-16

Lab Sample ID: 460-241982-22

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 72.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	450	U	450	14	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Fluoranthene	450	U	450	16	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Pyrene	450	U	450	11	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Benzo[a]anthracene	45	U	45	16	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Chrysene	450	U	450	7.7	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Benzo[b]fluoranthene	45	U	45	12	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Benzo[k]fluoranthene	45	U	45	8.9	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Benzo[a]pyrene	45	U	45	12	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Indeno[1,2,3-cd]pyrene	45	U	45	18	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Dibenz(a,h)anthracene	45	U	45	20	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
Benzo[g,h,i]perylene	450	U	450	13	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1
1,4-Dioxane	45	U	45	40	ug/Kg	✱	09/02/21 11:14	09/03/21 02:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	58		11 - 104	09/02/21 11:14	09/03/21 02:18	1
Phenol-d5 (Surr)	61		15 - 100	09/02/21 11:14	09/03/21 02:18	1
Terphenyl-d14 (Surr)	75		12 - 126	09/02/21 11:14	09/03/21 02:18	1
2,4,6-Tribromophenol (Surr)	62		10 - 123	09/02/21 11:14	09/03/21 02:18	1
2-Fluorophenol (Surr)	58		10 - 105	09/02/21 11:14	09/03/21 02:18	1
2-Fluorobiphenyl	56		14 - 103	09/02/21 11:14	09/03/21 02:18	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	9.2	U	9.2	1.6	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
4,4'-DDE	9.2	U	9.2	1.1	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
4,4'-DDT	9.2	U	9.2	1.7	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Aldrin	9.2	U	9.2	1.4	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
alpha-BHC	2.8	U	2.8	0.94	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
beta-BHC	2.8	U	2.8	1.0	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Chlordane (technical)	92	U	92	22	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
delta-BHC	2.8	U	2.8	0.57	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Dieldrin	2.8	U	2.8	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Endosulfan I	9.2	U	9.2	1.4	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Endosulfan II	9.2	U	9.2	2.4	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Endosulfan sulfate	9.2	U	9.2	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Endrin	9.2	U	9.2	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Endrin aldehyde	9.2	U	9.2	2.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Endrin ketone	9.2	U	9.2	1.8	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
gamma-BHC (Lindane)	2.8	U	2.8	0.85	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Heptachlor	9.2	U	9.2	1.1	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Heptachlor epoxide	9.2	U	9.2	1.4	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Methoxychlor	9.2	U	9.2	2.1	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
Toxaphene	92	U	92	33	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1
cis-Chlordane	9.2	U	9.2	1.5	ug/Kg	✱	09/02/21 18:28	09/03/21 09:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 150	09/02/21 18:28	09/03/21 09:06	1
DCB Decachlorobiphenyl	105		10 - 150	09/02/21 18:28	09/03/21 09:06	1
Tetrachloro-m-xylene	75		10 - 133	09/02/21 18:28	09/03/21 09:06	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:28	09/03/21 09:06	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 059_LB-45-15-16

Lab Sample ID: 460-241982-22

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 72.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Aroclor 1221	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Aroclor 1232	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Aroclor 1242	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Aroclor 1248	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Aroclor 1254	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Aroclor 1260	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Aroclor-1262	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Aroclor 1268	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1
Polychlorinated biphenyls, Total	92	U	92	25	ug/Kg	✱	09/02/21 18:02	09/03/21 09:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	61		37 - 150	09/02/21 18:02	09/03/21 09:08	1
DCB Decachlorobiphenyl	69		37 - 150	09/02/21 18:02	09/03/21 09:08	1
Tetrachloro-m-xylene	72		54 - 150	09/02/21 18:02	09/03/21 09:08	1
Tetrachloro-m-xylene	71		54 - 150	09/02/21 18:02	09/03/21 09:08	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	46	U	46	4.8	ug/Kg	✱	09/03/21 00:14	09/07/21 14:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	117		65 - 150	09/03/21 00:14	09/07/21 14:32	1
2,4-Dichlorophenylacetic acid	97		65 - 150	09/03/21 00:14	09/07/21 14:32	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluoroheptanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorooctanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorononanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorodecanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorotridecanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorotetradecanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorobutanesulfonic acid	2.60	U	2.60	0.52	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorohexanesulfonic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorooctanesulfonic acid	0.26	J	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
NEtFOSAA	2.60	U	2.60	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
NMeFOSAA	2.60	U	2.60	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluoroheptanesulfonic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorodecanesulfonic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorooctanesulfonamide	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorobutanoic acid	2.60	U	2.60	1.04	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluoroundecanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluorododecanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
6:2 Fluorotelomer sulfonic acid	2.60	U	2.60	0.78	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
8:2 Fluorotelomer sulfonic acid	3.90	U	3.90	0.78	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1
Perfluoropentanoic acid	0.78	U	0.78	0.26	ug/Kg	✱	09/03/21 11:51	09/05/21 18:48	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	97		10 - 178	09/03/21 11:51	09/05/21 18:48	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 059_LB-45-15-16

Lab Sample ID: 460-241982-22

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 72.5

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	95		10 - 182	09/03/21 11:51	09/05/21 18:48	1
13C5 PFHxA	87		11 - 138	09/03/21 11:51	09/05/21 18:48	1
13C4 PFHpA	87		15 - 139	09/03/21 11:51	09/05/21 18:48	1
13C8 PFOA	94		21 - 133	09/03/21 11:51	09/05/21 18:48	1
13C9 PFNA	89		15 - 145	09/03/21 11:51	09/05/21 18:48	1
13C6 PFDA	94		21 - 134	09/03/21 11:51	09/05/21 18:48	1
13C7 PFUnA	87		15 - 138	09/03/21 11:51	09/05/21 18:48	1
13C2-PFDoDA	89		28 - 126	09/03/21 11:51	09/05/21 18:48	1
13C2 PFTeDA	89		10 - 138	09/03/21 11:51	09/05/21 18:48	1
13C3 PFBS	110		23 - 130	09/03/21 11:51	09/05/21 18:48	1
13C3 PFHxS	89		24 - 136	09/03/21 11:51	09/05/21 18:48	1
13C8 PFOS	90		31 - 130	09/03/21 11:51	09/05/21 18:48	1
d3-NMeFOSAA	80		10 - 172	09/03/21 11:51	09/05/21 18:48	1
d5-NEtFOSAA	76		10 - 176	09/03/21 11:51	09/05/21 18:48	1
13C8 FOSA	86		25 - 135	09/03/21 11:51	09/05/21 18:48	1
13C4 PFBA	87		12 - 137	09/03/21 11:51	09/05/21 18:48	1
13C5 PFPeA	89		12 - 135	09/03/21 11:51	09/05/21 18:48	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	1.3	0.12	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Arsenic	2.4		1.3	0.13	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Barium	24.4		2.6	0.19	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Beryllium	0.43	J	0.53	0.075	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Cadmium	1.3	U	1.3	0.15	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Chromium	14.1		2.6	0.23	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Copper	8.2		2.6	0.29	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Manganese	171		5.3	0.53	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Nickel	11.1		2.6	0.25	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Lead	5.1		0.79	0.26	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Selenium	1.6	U	1.6	0.15	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1
Zinc	27.4		10.5	3.0	mg/Kg	✱	09/09/21 04:07	09/09/21 10:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	J	0.021	0.0050	mg/Kg	✱	09/03/21 04:02	09/03/21 09:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	14.1		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.8	U	2.8	1.2	mg/Kg	✱	09/16/21 18:20	09/17/21 22:45	1
Cyanide, Total	0.30	U	0.30	0.16	mg/Kg	✱	09/05/21 15:08	09/06/21 19:40	1
Percent Moisture	27.5		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	72.5		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 060_LB-44-8-10

Lab Sample ID: 460-241982-23

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.97	U	0.97	0.23	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,1-Dichloroethane	0.97	U	0.97	0.20	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,1-Dichloroethene	0.97	U	0.97	0.22	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,2,4-Trimethylbenzene	0.97	U	0.97	0.24	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,2-Dichlorobenzene	0.97	U	0.97	0.35	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,2-Dichloroethane	0.97	U	0.97	0.29	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,3,5-Trimethylbenzene	0.97	U	0.97	0.30	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,3-Dichlorobenzene	0.97	U	0.97	0.35	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,4-Dichlorobenzene	0.97	U	0.97	0.22	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
1,4-Dioxane	19	U	19	8.9	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
2-Butanone (MEK)	5.9		4.9	0.36	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Acetone	39		5.8	5.6	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Benzene	0.97	U	0.97	0.25	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Carbon tetrachloride	0.97	U	0.97	0.38	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Chlorobenzene	0.97	U	0.97	0.17	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Chloroform	0.97	U	0.97	0.94	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
cis-1,2-Dichloroethene	0.97	U	0.97	0.35	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Ethylbenzene	0.97	U	0.97	0.19	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Methyl tert-butyl ether	0.97	U	0.97	0.50	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
n-Butylbenzene	0.97	U	0.97	0.29	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
N-Propylbenzene	0.97	U *	0.97	0.17	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
sec-Butylbenzene	0.97	U	0.97	0.28	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
tert-Butylbenzene	0.97	U	0.97	0.27	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Tetrachloroethene	0.97	U	0.97	0.30	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Toluene	0.97	U	0.97	0.23	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
trans-1,2-Dichloroethene	0.97	U	0.97	0.24	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Trichloroethene	0.97	U	0.97	0.31	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Vinyl chloride	0.97	U	0.97	0.53	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1
Xylenes, Total	1.9	U	1.9	0.62	ug/Kg	✱	09/02/21 08:01	09/03/21 02:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		77 - 145	09/02/21 08:01	09/03/21 02:10	1
4-Bromofluorobenzene	118		70 - 139	09/02/21 08:01	09/03/21 02:10	1
Dibromofluoromethane (Surr)	118		48 - 150	09/02/21 08:01	09/03/21 02:10	1
Toluene-d8 (Surr)	114		80 - 120	09/02/21 08:01	09/03/21 02:10	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Pentachlorophenol	320	U	320	82	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Naphthalene	400	U	400	6.9	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Acenaphthylene	400	U	400	4.0	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Acenaphthene	400	U	400	11	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Dibenzofuran	400	U	400	5.6	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Fluorene	400	U	400	5.4	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Phenanthrene	400	U	400	7.0	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 060_LB-44-8-10

Lab Sample ID: 460-241982-23

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	400	U	400	12	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Fluoranthene	400	U	400	14	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Pyrene	400	U	400	9.9	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Benzo[a]anthracene	40	U	40	14	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Chrysene	400	U	400	6.7	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Benzo[b]fluoranthene	40	U	40	10	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Benzo[k]fluoranthene	40	U	40	7.8	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	09/02/21 11:14	09/03/21 02:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		11 - 104	09/02/21 11:14	09/03/21 02:41	1
Phenol-d5 (Surr)	61		15 - 100	09/02/21 11:14	09/03/21 02:41	1
Terphenyl-d14 (Surr)	74		12 - 126	09/02/21 11:14	09/03/21 02:41	1
2,4,6-Tribromophenol (Surr)	61		10 - 123	09/02/21 11:14	09/03/21 02:41	1
2-Fluorophenol (Surr)	57		10 - 105	09/02/21 11:14	09/03/21 02:41	1
2-Fluorobiphenyl	55		14 - 103	09/02/21 11:14	09/03/21 02:41	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.1	U	8.1	1.4	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
4,4'-DDE	8.1	U	8.1	0.95	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
4,4'-DDT	8.1	U	8.1	1.5	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
beta-BHC	2.4	U	2.4	0.90	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Chlordane (technical)	81	U	81	20	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Endosulfan II	8.1	U	8.1	2.1	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Endrin	8.1	U	8.1	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Heptachlor	8.1	U	8.1	0.95	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Methoxychlor	8.1	U	8.1	1.8	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
Toxaphene	81	U	81	29	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 09:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 150	09/02/21 18:28	09/03/21 09:21	1
DCB Decachlorobiphenyl	94		10 - 150	09/02/21 18:28	09/03/21 09:21	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:28	09/03/21 09:21	1
Tetrachloro-m-xylene	76		10 - 133	09/02/21 18:28	09/03/21 09:21	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 060_LB-44-8-10

Lab Sample ID: 460-241982-23

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Aroclor 1221	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Aroclor 1232	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Aroclor 1242	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Aroclor 1248	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Aroclor 1254	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Aroclor 1260	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Aroclor-1262	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Aroclor 1268	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1
Polychlorinated biphenyls, Total	81	U	81	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		37 - 150	09/02/21 18:02	09/03/21 09:24	1
DCB Decachlorobiphenyl	76		37 - 150	09/02/21 18:02	09/03/21 09:24	1
Tetrachloro-m-xylene	80		54 - 150	09/02/21 18:02	09/03/21 09:24	1
Tetrachloro-m-xylene	79		54 - 150	09/02/21 18:02	09/03/21 09:24	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	✱	09/03/21 00:14	09/07/21 14:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	108		65 - 150	09/03/21 00:14	09/07/21 14:46	1
2,4-Dichlorophenylacetic acid	104		65 - 150	09/03/21 00:14	09/07/21 14:46	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.10	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Arsenic	2.1		1.1	0.11	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Barium	32.2		2.3	0.16	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Beryllium	0.35	J	0.45	0.065	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Chromium	11.0		2.3	0.20	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Copper	7.3		2.3	0.25	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Manganese	161		4.5	0.46	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Nickel	10.6		2.3	0.22	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Lead	4.7		0.68	0.23	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1
Zinc	23.8		9.1	2.6	mg/Kg	✱	09/09/21 04:07	09/09/21 10:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0047	mg/Kg	✱	09/07/21 03:10	09/07/21 06:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.0		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/16/21 18:20	09/17/21 22:45	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	✱	09/05/21 15:08	09/06/21 19:41	1
Percent Moisture	17.0		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	83.0		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 061_LB-44-15-16

Lab Sample ID: 460-241982-24

Date Collected: 08/31/21 16:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.96	U	0.96	0.22	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,1-Dichloroethane	0.96	U	0.96	0.20	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,1-Dichloroethene	0.96	U	0.96	0.22	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,2,4-Trimethylbenzene	0.96	U	0.96	0.24	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,2-Dichlorobenzene	0.96	U	0.96	0.35	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,2-Dichloroethane	0.96	U	0.96	0.28	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,3,5-Trimethylbenzene	0.96	U	0.96	0.30	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,3-Dichlorobenzene	0.96	U	0.96	0.35	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,4-Dichlorobenzene	0.96	U	0.96	0.22	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
1,4-Dioxane	19	U	19	8.8	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
2-Butanone (MEK)	4.8	U	4.8	0.35	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Acetone	12		5.7	5.5	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Benzene	0.96	U	0.96	0.25	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Carbon tetrachloride	0.96	U	0.96	0.37	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Chlorobenzene	0.96	U	0.96	0.17	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Chloroform	0.96	U	0.96	0.93	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
cis-1,2-Dichloroethene	0.96	U	0.96	0.34	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Ethylbenzene	0.96	U	0.96	0.19	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Methyl tert-butyl ether	0.96	U	0.96	0.49	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
n-Butylbenzene	0.96	U	0.96	0.28	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
N-Propylbenzene	0.96	U *	0.96	0.17	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
sec-Butylbenzene	0.96	U	0.96	0.28	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
tert-Butylbenzene	0.96	U	0.96	0.26	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Tetrachloroethene	0.96	U	0.96	0.29	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Toluene	0.96	U	0.96	0.22	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
trans-1,2-Dichloroethene	0.96	U	0.96	0.24	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Trichloroethene	0.96	U	0.96	0.31	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Vinyl chloride	0.96	U	0.96	0.52	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1
Xylenes, Total	1.9	U	1.9	0.61	ug/Kg	☆	09/02/21 08:02	09/03/21 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		77 - 145	09/02/21 08:02	09/03/21 02:30	1
4-Bromofluorobenzene	117		70 - 139	09/02/21 08:02	09/03/21 02:30	1
Dibromofluoromethane (Surr)	114		48 - 150	09/02/21 08:02	09/03/21 02:30	1
Toluene-d8 (Surr)	112		80 - 120	09/02/21 08:02	09/03/21 02:30	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	14	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
2-Methylphenol	390	U	390	14	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
3 & 4 Methylphenol	390	U	390	24	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
Pentachlorophenol	310	U	310	79	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
Naphthalene	390	U	390	6.7	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
Acenaphthylene	390	U	390	3.9	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
Acenaphthene	390	U	390	11	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
Dibenzofuran	390	U	390	5.4	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
Fluorene	390	U	390	5.2	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
Hexachlorobenzene	39	U	39	18	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1
Phenanthrene	390	U	390	6.8	ug/Kg	☆	09/02/21 11:14	09/03/21 03:03	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 061_LB-44-15-16

Lab Sample ID: 460-241982-24

Date Collected: 08/31/21 16:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.6

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	390	U	390	12	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Fluoranthene	390	U	390	13	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Pyrene	390	U	390	9.6	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Benzo[a]anthracene	39	U	39	13	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Chrysene	390	U	390	6.5	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Benzo[b]fluoranthene	39	U	39	10	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Benzo[k]fluoranthene	39	U	39	7.6	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Benzo[a]pyrene	39	U	39	10	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Indeno[1,2,3-cd]pyrene	39	U	39	15	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
Benzo[g,h,i]perylene	390	U	390	11	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1
1,4-Dioxane	39	U	39	34	ug/Kg	✱	09/02/21 11:14	09/03/21 03:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		11 - 104	09/02/21 11:14	09/03/21 03:03	1
Phenol-d5 (Surr)	61		15 - 100	09/02/21 11:14	09/03/21 03:03	1
Terphenyl-d14 (Surr)	74		12 - 126	09/02/21 11:14	09/03/21 03:03	1
2,4,6-Tribromophenol (Surr)	50		10 - 123	09/02/21 11:14	09/03/21 03:03	1
2-Fluorophenol (Surr)	65		10 - 105	09/02/21 11:14	09/03/21 03:03	1
2-Fluorobiphenyl	59		14 - 103	09/02/21 11:14	09/03/21 03:03	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
4,4'-DDE	7.8	U	7.8	0.92	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
4,4'-DDT	7.8	U	7.8	1.4	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
beta-BHC	2.3	U	2.3	0.88	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Chlordane (technical)	78	U	78	19	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Endrin	7.8	U	7.8	1.1	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Heptachlor	7.8	U	7.8	0.92	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
Toxaphene	78	U	78	28	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		10 - 150	09/02/21 18:28	09/03/21 09:35	1
DCB Decachlorobiphenyl	99		10 - 150	09/02/21 18:28	09/03/21 09:35	1
Tetrachloro-m-xylene	78		10 - 133	09/02/21 18:28	09/03/21 09:35	1
Tetrachloro-m-xylene	75		10 - 133	09/02/21 18:28	09/03/21 09:35	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 061_LB-44-15-16

Lab Sample ID: 460-241982-24

Date Collected: 08/31/21 16:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Aroclor 1221	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Aroclor 1232	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Aroclor 1242	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Aroclor 1248	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Aroclor 1254	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Aroclor 1260	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Aroclor-1262	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Aroclor 1268	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	✱	09/02/21 18:02	09/03/21 09:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		37 - 150	09/02/21 18:02	09/03/21 09:40	1
DCB Decachlorobiphenyl	81		37 - 150	09/02/21 18:02	09/03/21 09:40	1
Tetrachloro-m-xylene	85		54 - 150	09/02/21 18:02	09/03/21 09:40	1
Tetrachloro-m-xylene	83		54 - 150	09/02/21 18:02	09/03/21 09:40	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.1	ug/Kg	✱	09/03/21 00:14	09/07/21 15:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	181	*	65 - 150	09/03/21 00:14	09/07/21 15:01	1
2,4-Dichlorophenylacetic acid	105		65 - 150	09/03/21 00:14	09/07/21 15:01	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluoroheptanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorooctanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorononanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorodecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorotridecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorotetradecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorobutanesulfonic acid	2.12	U	2.12	0.42	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorohexanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorooctanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
NEtFOSAA	2.12	U	2.12	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
NMeFOSAA	2.12	U	2.12	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluoroheptanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorodecanesulfonic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorooctanesulfonamide	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorobutanoic acid	2.12	U	2.12	0.85	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluoroundecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluorododecanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
6:2 Fluorotelomer sulfonic acid	2.12	U	2.12	0.64	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
8:2 Fluorotelomer sulfonic acid	3.19	U	3.19	0.64	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1
Perfluoropentanoic acid	0.64	U	0.64	0.21	ug/Kg	✱	09/03/21 11:51	09/05/21 18:59	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	103		10 - 178	09/03/21 11:51	09/05/21 18:59	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 061_LB-44-15-16

Lab Sample ID: 460-241982-24

Date Collected: 08/31/21 16:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.6

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	107		10 - 182	09/03/21 11:51	09/05/21 18:59	1
13C5 PFHxA	96		11 - 138	09/03/21 11:51	09/05/21 18:59	1
13C4 PFHpA	98		15 - 139	09/03/21 11:51	09/05/21 18:59	1
13C8 PFOA	102		21 - 133	09/03/21 11:51	09/05/21 18:59	1
13C9 PFNA	99		15 - 145	09/03/21 11:51	09/05/21 18:59	1
13C6 PFDA	98		21 - 134	09/03/21 11:51	09/05/21 18:59	1
13C7 PFUnA	95		15 - 138	09/03/21 11:51	09/05/21 18:59	1
13C2-PFDoDA	93		28 - 126	09/03/21 11:51	09/05/21 18:59	1
13C2 PFTeDA	93		10 - 138	09/03/21 11:51	09/05/21 18:59	1
13C3 PFBS	113		23 - 130	09/03/21 11:51	09/05/21 18:59	1
13C3 PFHxS	104		24 - 136	09/03/21 11:51	09/05/21 18:59	1
13C8 PFOS	97		31 - 130	09/03/21 11:51	09/05/21 18:59	1
d3-NMeFOSAA	72		10 - 172	09/03/21 11:51	09/05/21 18:59	1
d5-NEtFOSAA	73		10 - 176	09/03/21 11:51	09/05/21 18:59	1
13C8 FOSA	94		25 - 135	09/03/21 11:51	09/05/21 18:59	1
13C4 PFBA	91		12 - 137	09/03/21 11:51	09/05/21 18:59	1
13C5 PFPeA	102		12 - 135	09/03/21 11:51	09/05/21 18:59	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.097	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Arsenic	1.4		1.1	0.11	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Barium	6.8		2.2	0.16	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Beryllium	0.25	J	0.44	0.062	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Chromium	8.3		2.2	0.19	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Copper	5.0		2.2	0.24	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Manganese	51.3		4.4	0.44	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Nickel	7.1		2.2	0.21	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Lead	3.5		0.66	0.22	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1
Zinc	17.2		8.7	2.5	mg/Kg	✱	09/09/21 04:07	09/09/21 10:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0052	J	0.018	0.0043	mg/Kg	✱	09/07/21 03:10	09/07/21 06:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	8.3		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.3	U	2.3	0.99	mg/Kg	✱	09/16/21 18:20	09/17/21 22:45	1
Cyanide, Total	0.28	U	0.28	0.15	mg/Kg	✱	09/05/21 15:08	09/06/21 19:42	1
Percent Moisture	14.4		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	85.6		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 062_LB-43-9-11

Lab Sample ID: 460-241982-25

Date Collected: 08/31/21 17:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 79.1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,2-Dichloroethane	1.0	U	1.0	0.31	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.38	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
1,4-Dioxane	21	U	21	9.5	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
2-Butanone (MEK)	5.2		5.2	0.38	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Acetone	49		6.2	5.9	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Benzene	1.0	U	1.0	0.27	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Carbon tetrachloride	1.0	U	1.0	0.40	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Chloroform	1.0	U	1.0	1.0	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.37	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Ethylbenzene	1.0	U	1.0	0.21	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.53	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Methylene Chloride	1.7	J	2.1	1.2	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
n-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
sec-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
tert-Butylbenzene	1.0	U	1.0	0.29	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Tetrachloroethene	1.0	U	1.0	0.32	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Toluene	1.0	U	1.0	0.24	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Trichloroethene	1.0	U	1.0	0.33	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Vinyl chloride	1.0	U	1.0	0.57	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1
Xylenes, Total	2.1	U	2.1	0.67	ug/Kg	☆	09/02/21 08:03	09/03/21 09:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		77 - 145	09/02/21 08:03	09/03/21 09:59	1
4-Bromofluorobenzene	116		70 - 139	09/02/21 08:03	09/03/21 09:59	1
Dibromofluoromethane (Surr)	116		48 - 150	09/02/21 08:03	09/03/21 09:59	1
Toluene-d8 (Surr)	113		80 - 120	09/02/21 08:03	09/03/21 09:59	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	420	U	420	15	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
2-Methylphenol	420	U	420	16	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
3 & 4 Methylphenol	420	U	420	26	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
Pentachlorophenol	340	U	340	86	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
Naphthalene	420	U	420	7.2	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
Acenaphthylene	420	U	420	4.2	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
Acenaphthene	420	U	420	12	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
Dibenzofuran	420	U	420	5.9	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
Fluorene	420	U	420	5.7	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
Hexachlorobenzene	42	U	42	20	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1
Phenanthrene	13	J	420	7.3	ug/Kg	☆	09/02/21 11:14	09/03/21 03:25	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 062_LB-43-9-11

Lab Sample ID: 460-241982-25

Date Collected: 08/31/21 17:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 79.1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	420	U	420	13	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Fluoranthene	34	J	420	15	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Pyrene	45	J	420	10	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Benzo[a]anthracene	30	J	42	15	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Chrysene	28	J	420	7.1	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Benzo[b]fluoranthene	26	J	42	11	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Benzo[k]fluoranthene	11	J	42	8.2	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Benzo[a]pyrene	25	J	42	11	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Indeno[1,2,3-cd]pyrene	42	U	42	16	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Dibenz(a,h)anthracene	42	U	42	18	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
Benzo[g,h,i]perylene	14	J	420	12	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1
1,4-Dioxane	42	U	42	37	ug/Kg	✱	09/02/21 11:14	09/03/21 03:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	54		11 - 104	09/02/21 11:14	09/03/21 03:25	1
Phenol-d5 (Surr)	59		15 - 100	09/02/21 11:14	09/03/21 03:25	1
Terphenyl-d14 (Surr)	78		12 - 126	09/02/21 11:14	09/03/21 03:25	1
2,4,6-Tribromophenol (Surr)	65		10 - 123	09/02/21 11:14	09/03/21 03:25	1
2-Fluorophenol (Surr)	54		10 - 105	09/02/21 11:14	09/03/21 03:25	1
2-Fluorobiphenyl	55		14 - 103	09/02/21 11:14	09/03/21 03:25	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.5	U	8.5	1.4	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
4,4'-DDE	8.5	U	8.5	1.0	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
4,4'-DDT	8.5	U	8.5	1.6	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Aldrin	8.5	U	8.5	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
alpha-BHC	2.5	U	2.5	0.86	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
beta-BHC	2.5	U	2.5	0.95	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Chlordane (technical)	85	U	85	20	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
delta-BHC	2.5	U	2.5	0.52	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Dieldrin	2.5	U	2.5	1.1	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Endosulfan I	8.5	U	8.5	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Endosulfan II	8.5	U	8.5	2.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Endosulfan sulfate	8.5	U	8.5	1.1	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Endrin	8.5	U	8.5	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Endrin aldehyde	8.5	U	8.5	2.0	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Endrin ketone	8.5	U	8.5	1.6	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
gamma-BHC (Lindane)	2.5	U	2.5	0.78	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Heptachlor	8.5	U	8.5	1.0	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Heptachlor epoxide	8.5	U	8.5	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Methoxychlor	8.5	U	8.5	1.9	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
Toxaphene	85	U	85	31	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1
cis-Chlordane	8.5	U	8.5	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 09:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		10 - 150	09/02/21 18:28	09/03/21 09:34	1
DCB Decachlorobiphenyl	82		10 - 150	09/02/21 18:28	09/03/21 09:34	1
Tetrachloro-m-xylene	82		10 - 133	09/02/21 18:28	09/03/21 09:34	1
Tetrachloro-m-xylene	78		10 - 133	09/02/21 18:28	09/03/21 09:34	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 062_LB-43-9-11

Lab Sample ID: 460-241982-25

Date Collected: 08/31/21 17:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 79.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Aroclor 1221	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Aroclor 1232	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Aroclor 1242	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Aroclor 1248	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Aroclor 1254	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Aroclor 1260	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Aroclor-1262	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Aroclor 1268	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1
Polychlorinated biphenyls, Total	85	U	85	22	ug/Kg	✱	09/02/21 18:02	09/03/21 09:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		37 - 150	09/02/21 18:02	09/03/21 09:56	1
DCB Decachlorobiphenyl	82		37 - 150	09/02/21 18:02	09/03/21 09:56	1
Tetrachloro-m-xylene	86		54 - 150	09/02/21 18:02	09/03/21 09:56	1
Tetrachloro-m-xylene	84		54 - 150	09/02/21 18:02	09/03/21 09:56	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	42	U	42	4.4	ug/Kg	✱	09/03/21 00:14	09/07/21 15:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	206	*	65 - 150	09/03/21 00:14	09/07/21 15:16	1
2,4-Dichlorophenylacetic acid	106		65 - 150	09/03/21 00:14	09/07/21 15:16	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Arsenic	2.2		1.2	0.12	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Barium	13.3		2.4	0.18	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Beryllium	0.42	J	0.49	0.069	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Cadmium	1.2	U	1.2	0.14	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Chromium	9.3		2.4	0.21	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Copper	5.7		2.4	0.27	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Manganese	62.3		4.9	0.49	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Nickel	9.1		2.4	0.24	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Lead	5.6		0.73	0.24	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1
Zinc	20.4		9.7	2.8	mg/Kg	✱	09/09/21 04:07	09/09/21 10:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.020	0.0047	mg/Kg	✱	09/07/21 03:10	09/07/21 06:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.3		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.5	U	2.5	1.1	mg/Kg	✱	09/16/21 18:20	09/17/21 22:45	1
Cyanide, Total	0.30	U	0.30	0.17	mg/Kg	✱	09/05/21 15:08	09/06/21 19:43	1
Percent Moisture	20.9		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	79.1		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 063_LB-43-15-16

Lab Sample ID: 460-241982-26

Date Collected: 08/31/21 17:35

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 52.3

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.5	U	1.5	0.35	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,1-Dichloroethane	1.5	U	1.5	0.31	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,1-Dichloroethene	1.5	U	1.5	0.34	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,2,4-Trimethylbenzene	1.5	U	1.5	0.37	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,2-Dichlorobenzene	1.5	U	1.5	0.55	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,2-Dichloroethane	1.5	U	1.5	0.45	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,3,5-Trimethylbenzene	1.5	U	1.5	0.48	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,3-Dichlorobenzene	1.5	U	1.5	0.55	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,4-Dichlorobenzene	1.5	U	1.5	0.34	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
1,4-Dioxane	30	U	30	14	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
2-Butanone (MEK)	3.5	J	7.6	0.56	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Acetone	27		9.1	8.7	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Benzene	1.5	U	1.5	0.39	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Carbon tetrachloride	1.5	U	1.5	0.59	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Chlorobenzene	1.5	U	1.5	0.27	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Chloroform	1.5	U	1.5	1.5	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
cis-1,2-Dichloroethene	1.5	U	1.5	0.54	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Ethylbenzene	1.5	U	1.5	0.30	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Methyl tert-butyl ether	1.5	U	1.5	0.78	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Methylene Chloride	3.0	U	3.0	1.7	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
n-Butylbenzene	1.5	U	1.5	0.45	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
N-Propylbenzene	1.5	U *	1.5	0.27	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
sec-Butylbenzene	1.5	U	1.5	0.44	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
tert-Butylbenzene	1.5	U	1.5	0.42	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Tetrachloroethene	1.5	U	1.5	0.46	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Toluene	1.5	U	1.5	0.36	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
trans-1,2-Dichloroethene	1.5	U	1.5	0.37	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Trichloroethene	1.5	U	1.5	0.49	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Vinyl chloride	1.5	U	1.5	0.83	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1
Xylenes, Total	3.0	U	3.0	0.97	ug/Kg	☆	09/02/21 08:03	09/03/21 03:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		77 - 145	09/02/21 08:03	09/03/21 03:10	1
4-Bromofluorobenzene	117		70 - 139	09/02/21 08:03	09/03/21 03:10	1
Dibromofluoromethane (Surr)	116		48 - 150	09/02/21 08:03	09/03/21 03:10	1
Toluene-d8 (Surr)	113		80 - 120	09/02/21 08:03	09/03/21 03:10	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	630	U	630	23	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
2-Methylphenol	630	U	630	24	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
3 & 4 Methylphenol	110	J	630	39	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
Pentachlorophenol	510	U	510	130	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
Naphthalene	52	J	630	11	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
Acenaphthylene	40	J	630	6.4	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
Acenaphthene	35	J	630	18	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
Dibenzofuran	24	J	630	8.9	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
Fluorene	42	J	630	8.6	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
Hexachlorobenzene	63	U	63	30	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1
Phenanthrene	600	J	630	11	ug/Kg	☆	09/02/21 11:14	09/03/21 04:10	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 063_LB-43-15-16

Lab Sample ID: 460-241982-26

Date Collected: 08/31/21 17:35

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 52.3

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	210	J	630	19	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Fluoranthene	1300		630	22	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Pyrene	1800		630	16	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Benzo[a]anthracene	990		63	22	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Chrysene	1100		630	11	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Benzo[b]fluoranthene	1200		63	16	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Benzo[k]fluoranthene	390		63	12	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Benzo[a]pyrene	1000		63	17	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Indeno[1,2,3-cd]pyrene	600		63	25	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Dibenz(a,h)anthracene	160		63	27	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
Benzo[g,h,i]perylene	550	J	630	19	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1
1,4-Dioxane	63	U	63	55	ug/Kg	✱	09/02/21 11:14	09/03/21 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	53		11 - 104	09/02/21 11:14	09/03/21 04:10	1
Phenol-d5 (Surr)	65		15 - 100	09/02/21 11:14	09/03/21 04:10	1
Terphenyl-d14 (Surr)	65		12 - 126	09/02/21 11:14	09/03/21 04:10	1
2,4,6-Tribromophenol (Surr)	54		10 - 123	09/02/21 11:14	09/03/21 04:10	1
2-Fluorophenol (Surr)	58		10 - 105	09/02/21 11:14	09/03/21 04:10	1
2-Fluorobiphenyl	58		14 - 103	09/02/21 11:14	09/03/21 04:10	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	3.9	J	13	2.2	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
4,4'-DDE	4.5	J	13	1.5	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
4,4'-DDT	21	*	13	2.3	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Aldrin	13	U	13	1.9	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
alpha-BHC	3.8	U	3.8	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
beta-BHC	3.8	U	3.8	1.4	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Chlordane (technical)	130	U	130	31	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
delta-BHC	3.8	U	3.8	0.78	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Dieldrin	3.8	U	3.8	1.7	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Endosulfan I	13	U	13	1.9	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Endosulfan II	13	U	13	3.3	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Endosulfan sulfate	13	U	13	1.6	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Endrin	13	U	13	1.8	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Endrin aldehyde	13	U	13	3.0	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Endrin ketone	13	U	13	2.5	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
gamma-BHC (Lindane)	3.8	U	3.8	1.2	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Heptachlor	13	U	13	1.5	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Heptachlor epoxide	13	U	13	1.9	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Methoxychlor	13	U	13	2.9	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
Toxaphene	130	U	130	46	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1
cis-Chlordane	13	U	13	2.0	ug/Kg	✱	09/02/21 18:28	09/03/21 10:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		10 - 150	09/02/21 18:28	09/03/21 10:23	1
DCB Decachlorobiphenyl	95		10 - 150	09/02/21 18:28	09/03/21 10:23	1
Tetrachloro-m-xylene	95		10 - 133	09/02/21 18:28	09/03/21 10:23	1
Tetrachloro-m-xylene	92		10 - 133	09/02/21 18:28	09/03/21 10:23	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 063_LB-43-15-16

Lab Sample ID: 460-241982-26

Date Collected: 08/31/21 17:35

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 52.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Aroclor 1221	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Aroclor 1232	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Aroclor 1242	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Aroclor 1248	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Aroclor 1254	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Aroclor 1260	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Aroclor-1262	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Aroclor 1268	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1
Polychlorinated biphenyls, Total	130	U	130	34	ug/Kg	✱	09/02/21 18:02	09/03/21 10:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		37 - 150	09/02/21 18:02	09/03/21 10:11	1
DCB Decachlorobiphenyl	90		37 - 150	09/02/21 18:02	09/03/21 10:11	1
Tetrachloro-m-xylene	95		54 - 150	09/02/21 18:02	09/03/21 10:11	1
Tetrachloro-m-xylene	93		54 - 150	09/02/21 18:02	09/03/21 10:11	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	64	U	64	6.6	ug/Kg	✱	09/03/21 00:14	09/07/21 15:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	124		65 - 150	09/03/21 00:14	09/07/21 15:30	1
2,4-Dichlorophenylacetic acid	111		65 - 150	09/03/21 00:14	09/07/21 15:30	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluoroheptanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorooctanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorononanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorodecanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorotridecanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorotetradecanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorobutanesulfonic acid	3.51	U	3.51	0.70	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorohexanesulfonic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorooctanesulfonic acid	0.66	J	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
NEtFOSAA	3.51	U	3.51	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
NMeFOSAA	3.51	U	3.51	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluoroheptanesulfonic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorodecanesulfonic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorooctanesulfonamide	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorobutanoic acid	3.51	U	3.51	1.40	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluoroundecanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluorododecanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
6:2 Fluorotelomer sulfonic acid	3.51	U	3.51	1.05	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
8:2 Fluorotelomer sulfonic acid	5.26	U	5.26	1.05	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1
Perfluoropentanoic acid	1.05	U	1.05	0.35	ug/Kg	✱	09/03/21 11:51	09/05/21 19:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	97		10 - 178	09/03/21 11:51	09/05/21 19:10	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 063_LB-43-15-16

Lab Sample ID: 460-241982-26

Date Collected: 08/31/21 17:35

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 52.3

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	102		10 - 182	09/03/21 11:51	09/05/21 19:10	1
13C5 PFHxA	94		11 - 138	09/03/21 11:51	09/05/21 19:10	1
13C4 PFHpA	88		15 - 139	09/03/21 11:51	09/05/21 19:10	1
13C8 PFOA	100		21 - 133	09/03/21 11:51	09/05/21 19:10	1
13C9 PFNA	91		15 - 145	09/03/21 11:51	09/05/21 19:10	1
13C6 PFDA	91		21 - 134	09/03/21 11:51	09/05/21 19:10	1
13C7 PFUnA	90		15 - 138	09/03/21 11:51	09/05/21 19:10	1
13C2-PFDoDA	88		28 - 126	09/03/21 11:51	09/05/21 19:10	1
13C2 PFTeDA	93		10 - 138	09/03/21 11:51	09/05/21 19:10	1
13C3 PFBS	106		23 - 130	09/03/21 11:51	09/05/21 19:10	1
13C3 PFHxS	91		24 - 136	09/03/21 11:51	09/05/21 19:10	1
13C8 PFOS	95		31 - 130	09/03/21 11:51	09/05/21 19:10	1
d3-NMeFOSAA	61		10 - 172	09/03/21 11:51	09/05/21 19:10	1
d5-NEtFOSAA	72		10 - 176	09/03/21 11:51	09/05/21 19:10	1
13C8 FOSA	74		25 - 135	09/03/21 11:51	09/05/21 19:10	1
13C4 PFBA	86		12 - 137	09/03/21 11:51	09/05/21 19:10	1
13C5 PFPeA	90		12 - 135	09/03/21 11:51	09/05/21 19:10	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.9	U	1.9	0.17	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Arsenic	4.4		1.9	0.19	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Barium	25.8		3.7	0.27	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Beryllium	0.26	J	0.74	0.11	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Cadmium	1.9	U	1.9	0.21	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Chromium	10.8		3.7	0.32	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Copper	7.6		3.7	0.41	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Manganese	173		7.4	0.75	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Nickel	8.4		3.7	0.36	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Lead	16.0		1.1	0.37	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Selenium	0.27	J	2.3	0.22	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1
Zinc	22.4		14.8	4.2	mg/Kg	✱	09/09/21 04:07	09/09/21 10:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.16		0.030	0.0071	mg/Kg	✱	09/07/21 03:10	09/07/21 06:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.8		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	3.8	U	3.8	1.6	mg/Kg	✱	09/16/21 18:20	09/17/21 22:45	1
Cyanide, Total	0.40	U	0.40	0.22	mg/Kg	✱	09/05/21 15:08	09/06/21 19:43	1
Percent Moisture	47.7		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	52.3		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 064_LB-42-5-7

Lab Sample ID: 460-241982-27

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 76.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.89	U	0.89	0.21	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,1-Dichloroethane	0.89	U	0.89	0.18	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,1-Dichloroethene	0.89	U	0.89	0.20	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,2,4-Trimethylbenzene	0.89	U	0.89	0.22	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,2-Dichlorobenzene	0.89	U	0.89	0.32	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,2-Dichloroethane	0.89	U	0.89	0.26	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,3,5-Trimethylbenzene	0.89	U	0.89	0.28	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,3-Dichlorobenzene	0.89	U	0.89	0.32	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,4-Dichlorobenzene	0.89	U	0.89	0.20	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
1,4-Dioxane	18	U	18	8.2	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
2-Butanone (MEK)	5.4		4.4	0.33	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Acetone	35		5.3	5.1	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Benzene	0.89	U	0.89	0.23	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Carbon tetrachloride	0.89	U	0.89	0.34	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Chlorobenzene	0.89	U	0.89	0.16	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Chloroform	0.89	U	0.89	0.86	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
cis-1,2-Dichloroethene	0.89	U	0.89	0.32	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Ethylbenzene	0.89	U	0.89	0.18	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Methyl tert-butyl ether	0.89	U	0.89	0.45	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Methylene Chloride	1.4	J	1.8	1.0	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
n-Butylbenzene	0.89	U	0.89	0.26	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
N-Propylbenzene	0.89	U	0.89	0.16	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
sec-Butylbenzene	0.89	U	0.89	0.26	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
tert-Butylbenzene	0.89	U	0.89	0.25	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Tetrachloroethene	0.89	U	0.89	0.27	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Toluene	0.89	U	0.89	0.21	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
trans-1,2-Dichloroethene	0.89	U	0.89	0.22	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Trichloroethene	0.89	U	0.89	0.29	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Vinyl chloride	0.89	U	0.89	0.48	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1
Xylenes, Total	1.8	U	1.8	0.57	ug/Kg	☆	09/02/21 08:04	09/03/21 10:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	123		77 - 145	09/02/21 08:04	09/03/21 10:19	1
4-Bromofluorobenzene	117		70 - 139	09/02/21 08:04	09/03/21 10:19	1
Dibromofluoromethane (Surr)	118		48 - 150	09/02/21 08:04	09/03/21 10:19	1
Toluene-d8 (Surr)	116		80 - 120	09/02/21 08:04	09/03/21 10:19	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	220	J	430	16	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
2-Methylphenol	430	U	430	16	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
3 & 4 Methylphenol	3100		430	27	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
Pentachlorophenol	350	U	350	89	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
Naphthalene	1600		430	7.5	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
Acenaphthylene	310	J	430	4.4	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
Acenaphthene	1000		430	12	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
Dibenzofuran	690		430	6.1	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
Fluorene	1400		430	5.9	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
Hexachlorobenzene	43	U	43	21	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1
Phenanthrene	7000		430	7.6	ug/Kg	☆	09/02/21 11:14	09/03/21 04:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 064_LB-42-5-7

Lab Sample ID: 460-241982-27

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 76.0

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	1700		430	13	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Fluoranthene	5700		430	15	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Pyrene	5900		430	11	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Benzo[a]anthracene	2600		43	15	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Chrysene	2700		430	7.4	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Benzo[b]fluoranthene	2900		43	11	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Benzo[k]fluoranthene	880		43	8.5	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Benzo[a]pyrene	2700		43	12	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Indeno[1,2,3-cd]pyrene	1400		43	17	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Dibenz(a,h)anthracene	350		43	19	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
Benzo[g,h,i]perylene	1300		430	13	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1
1,4-Dioxane	43	U	43	38	ug/Kg	✱	09/02/21 11:14	09/03/21 04:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	57		11 - 104	09/02/21 11:14	09/03/21 04:33	1
Phenol-d5 (Surr)	62		15 - 100	09/02/21 11:14	09/03/21 04:33	1
Terphenyl-d14 (Surr)	62		12 - 126	09/02/21 11:14	09/03/21 04:33	1
2,4,6-Tribromophenol (Surr)	60		10 - 123	09/02/21 11:14	09/03/21 04:33	1
2-Fluorophenol (Surr)	55		10 - 105	09/02/21 11:14	09/03/21 04:33	1
2-Fluorobiphenyl	59		14 - 103	09/02/21 11:14	09/03/21 04:33	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.8	U	8.8	1.5	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
4,4'-DDE	4.2	J	8.8	1.0	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
4,4'-DDT	4.2	J	8.8	1.6	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Aldrin	8.8	U	8.8	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
alpha-BHC	2.6	U	2.6	0.89	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
beta-BHC	2.6	U	2.6	0.99	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Chlordane (technical)	88	U	88	21	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
delta-BHC	2.6	U	2.6	0.54	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Dieldrin	2.6	U	2.6	1.1	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Endosulfan I	8.8	U	8.8	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Endosulfan II	8.8	U	8.8	2.3	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Endosulfan sulfate	8.8	U	8.8	1.1	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Endrin	8.8	U	8.8	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Endrin aldehyde	8.8	U	8.8	2.1	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Endrin ketone	8.8	U	8.8	1.7	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
gamma-BHC (Lindane)	2.6	U	2.6	0.82	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Heptachlor	8.8	U	8.8	1.0	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Heptachlor epoxide	8.8	U	8.8	1.3	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Methoxychlor	8.8	U	8.8	2.0	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
Toxaphene	88	U	88	32	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1
cis-Chlordane	8.8	U	8.8	1.4	ug/Kg	✱	09/02/21 18:28	09/03/21 10:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		10 - 150	09/02/21 18:28	09/03/21 10:22	1
DCB Decachlorobiphenyl	112		10 - 150	09/02/21 18:28	09/03/21 10:22	1
Tetrachloro-m-xylene	95		10 - 133	09/02/21 18:28	09/03/21 10:22	1
Tetrachloro-m-xylene	94		10 - 133	09/02/21 18:28	09/03/21 10:22	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 064_LB-42-5-7

Lab Sample ID: 460-241982-27

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 76.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Aroclor 1221	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Aroclor 1232	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Aroclor 1242	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Aroclor 1248	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Aroclor 1254	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Aroclor 1260	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Aroclor-1262	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Aroclor 1268	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1
Polychlorinated biphenyls, Total	88	U	88	23	ug/Kg	✱	09/02/21 18:02	09/03/21 10:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		37 - 150	09/02/21 18:02	09/03/21 10:27	1
DCB Decachlorobiphenyl	99		37 - 150	09/02/21 18:02	09/03/21 10:27	1
Tetrachloro-m-xylene	87		54 - 150	09/02/21 18:02	09/03/21 10:27	1
Tetrachloro-m-xylene	98		54 - 150	09/02/21 18:02	09/03/21 10:27	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	44	U	44	4.6	ug/Kg	✱	09/03/21 00:14	09/07/21 15:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	277	*	65 - 150	09/03/21 00:14	09/07/21 15:45	1
2,4-Dichlorophenylacetic acid	94		65 - 150	09/03/21 00:14	09/07/21 15:45	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.18	J	1.3	0.11	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Arsenic	5.0		1.3	0.13	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Barium	128		2.5	0.18	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Beryllium	0.49	J	0.50	0.071	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Cadmium	1.3	U	1.3	0.14	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Chromium	17.5		2.5	0.22	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Copper	35.9		2.5	0.28	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Manganese	351		5.0	0.50	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Nickel	15.5		2.5	0.24	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Lead	443		0.75	0.25	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Selenium	0.98	J	1.6	0.15	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1
Zinc	118		10.0	2.9	mg/Kg	✱	09/09/21 04:07	09/09/21 10:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.80		0.020	0.0048	mg/Kg	✱	09/07/21 03:10	09/07/21 06:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	17.5		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.6	U	2.6	1.1	mg/Kg	✱	09/16/21 18:20	09/17/21 22:45	1
Cyanide, Total	0.32	U	0.32	0.17	mg/Kg	✱	09/05/21 15:08	09/06/21 19:44	1
Percent Moisture	24.0		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	76.0		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 065_LB-42-15-16

Lab Sample ID: 460-241982-28

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.90	U	0.90	0.21	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,1-Dichloroethane	0.90	U	0.90	0.19	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,1-Dichloroethene	0.90	U	0.90	0.20	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,2,4-Trimethylbenzene	0.90	U	0.90	0.22	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,2-Dichlorobenzene	0.90	U	0.90	0.33	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,2-Dichloroethane	0.90	U	0.90	0.27	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,3,5-Trimethylbenzene	0.90	U	0.90	0.28	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,3-Dichlorobenzene	0.90	U	0.90	0.33	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,4-Dichlorobenzene	0.90	U	0.90	0.20	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
1,4-Dioxane	18	U	18	8.3	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
2-Butanone (MEK)	4.6		4.5	0.33	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Acetone	26		5.4	5.2	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Benzene	0.90	U	0.90	0.23	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Carbon tetrachloride	0.90	U	0.90	0.35	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Chlorobenzene	0.90	U	0.90	0.16	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Chloroform	0.90	U	0.90	0.88	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
cis-1,2-Dichloroethene	0.90	U	0.90	0.32	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Ethylbenzene	0.90	U	0.90	0.18	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Methyl tert-butyl ether	0.90	U	0.90	0.46	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
n-Butylbenzene	0.90	U	0.90	0.26	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
N-Propylbenzene	0.90	U	0.90	0.16	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
sec-Butylbenzene	0.90	U	0.90	0.26	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
tert-Butylbenzene	0.90	U	0.90	0.25	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Tetrachloroethene	0.90	U	0.90	0.27	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Toluene	0.90	U	0.90	0.21	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
trans-1,2-Dichloroethene	0.90	U	0.90	0.22	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Trichloroethene	0.90	U	0.90	0.29	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Vinyl chloride	0.90	U	0.90	0.49	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1
Xylenes, Total	1.8	U	1.8	0.58	ug/Kg	☆	09/02/21 08:05	09/03/21 10:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		77 - 145	09/02/21 08:05	09/03/21 10:39	1
4-Bromofluorobenzene	118		70 - 139	09/02/21 08:05	09/03/21 10:39	1
Dibromofluoromethane (Surr)	117		48 - 150	09/02/21 08:05	09/03/21 10:39	1
Toluene-d8 (Surr)	117		80 - 120	09/02/21 08:05	09/03/21 10:39	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
2-Methylphenol	400	U	400	15	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
3 & 4 Methylphenol	69	J	400	25	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Pentachlorophenol	320	U	320	82	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Naphthalene	75	J	400	6.9	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Acenaphthylene	15	J	400	4.0	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Acenaphthene	36	J	400	11	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Dibenzofuran	25	J	400	5.6	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Fluorene	57	J	400	5.4	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Hexachlorobenzene	40	U	40	19	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Phenanthrene	340	J	400	7.1	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 065_LB-42-15-16

Lab Sample ID: 460-241982-28

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	81	J	400	12	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Fluoranthene	310	J	400	14	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Pyrene	400		400	10	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Benzo[a]anthracene	180		40	14	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Chrysene	180	J	400	6.8	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Benzo[b]fluoranthene	200		40	10	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Benzo[k]fluoranthene	64		40	7.9	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Benzo[a]pyrene	180		40	11	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Indeno[1,2,3-cd]pyrene	100		40	16	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Dibenz(a,h)anthracene	34	J	40	17	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
Benzo[g,h,i]perylene	93	J	400	12	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1
1,4-Dioxane	40	U	40	35	ug/Kg	☆	09/02/21 11:14	09/03/21 03:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		11 - 104	09/02/21 11:14	09/03/21 03:48	1
Phenol-d5 (Surr)	63		15 - 100	09/02/21 11:14	09/03/21 03:48	1
Terphenyl-d14 (Surr)	77		12 - 126	09/02/21 11:14	09/03/21 03:48	1
2,4,6-Tribromophenol (Surr)	63		10 - 123	09/02/21 11:14	09/03/21 03:48	1
2-Fluorophenol (Surr)	58		10 - 105	09/02/21 11:14	09/03/21 03:48	1
2-Fluorobiphenyl	58		14 - 103	09/02/21 11:14	09/03/21 03:48	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	4.7	J	8.1	1.4	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
4,4'-DDE	5.8	J	8.1	0.96	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
4,4'-DDT	4.9	J *	8.1	1.5	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
alpha-BHC	2.4	U	2.4	0.83	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
beta-BHC	2.4	U	2.4	0.91	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Chlordane (technical)	81	U	81	20	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Endosulfan II	8.1	U	8.1	2.1	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Endrin	8.1	U	8.1	1.2	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Heptachlor	8.1	U	8.1	0.96	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Methoxychlor	8.1	U	8.1	1.9	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
Toxaphene	81	U	81	29	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	☆	09/02/21 18:28	09/03/21 10:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		10 - 150	09/02/21 18:28	09/03/21 10:22	1
DCB Decachlorobiphenyl	84		10 - 150	09/02/21 18:28	09/03/21 10:22	1
Tetrachloro-m-xylene	78		10 - 133	09/02/21 18:28	09/03/21 10:22	1
Tetrachloro-m-xylene	78		10 - 133	09/02/21 18:28	09/03/21 10:22	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 065_LB-42-15-16

Lab Sample ID: 460-241982-28

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Aroclor 1221	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Aroclor 1232	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Aroclor 1242	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Aroclor 1248	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Aroclor 1254	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Aroclor 1260	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Aroclor-1262	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Aroclor 1268	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1
Polychlorinated biphenyls, Total	81	U	81	22	ug/Kg	✱	09/02/21 18:02	09/03/21 10:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		37 - 150	09/02/21 18:02	09/03/21 10:43	1
DCB Decachlorobiphenyl	82		37 - 150	09/02/21 18:02	09/03/21 10:43	1
Tetrachloro-m-xylene	85		54 - 150	09/02/21 18:02	09/03/21 10:43	1
Tetrachloro-m-xylene	83		54 - 150	09/02/21 18:02	09/03/21 10:43	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	✱	09/03/21 00:14	09/07/21 16:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	113		65 - 150	09/03/21 00:14	09/07/21 16:00	1
2,4-Dichlorophenylacetic acid	105		65 - 150	09/03/21 00:14	09/07/21 16:00	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluoroheptanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorooctanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorononanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorodecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorotridecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorotetradecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorobutanesulfonic acid	2.33	U	2.33	0.47	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorohexanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorooctanesulfonic acid	0.24	J	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
NEtFOSAA	2.33	U	2.33	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
NMeFOSAA	2.33	U	2.33	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluoroheptanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorodecanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorooctanesulfonamide	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorobutanoic acid	2.33	U	2.33	0.93	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluoroundecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluorododecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
6:2 Fluorotelomer sulfonic acid	2.33	U	2.33	0.70	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
8:2 Fluorotelomer sulfonic acid	3.50	U	3.50	0.70	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1
Perfluoropentanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/03/21 11:51	09/05/21 19:21	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	99		10 - 178	09/03/21 11:51	09/05/21 19:21	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 065_LB-42-15-16

Lab Sample ID: 460-241982-28

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	111		10 - 182	09/03/21 11:51	09/05/21 19:21	1
13C5 PFHxA	86		11 - 138	09/03/21 11:51	09/05/21 19:21	1
13C4 PFHpA	92		15 - 139	09/03/21 11:51	09/05/21 19:21	1
13C8 PFOA	99		21 - 133	09/03/21 11:51	09/05/21 19:21	1
13C9 PFNA	95		15 - 145	09/03/21 11:51	09/05/21 19:21	1
13C6 PFDA	92		21 - 134	09/03/21 11:51	09/05/21 19:21	1
13C7 PFUnA	96		15 - 138	09/03/21 11:51	09/05/21 19:21	1
13C2-PFDoDA	96		28 - 126	09/03/21 11:51	09/05/21 19:21	1
13C2 PFTeDA	102		10 - 138	09/03/21 11:51	09/05/21 19:21	1
13C3 PFBS	104		23 - 130	09/03/21 11:51	09/05/21 19:21	1
13C3 PFHxS	93		24 - 136	09/03/21 11:51	09/05/21 19:21	1
13C8 PFOS	98		31 - 130	09/03/21 11:51	09/05/21 19:21	1
d3-NMeFOSAA	93		10 - 172	09/03/21 11:51	09/05/21 19:21	1
d5-NEtFOSAA	101		10 - 176	09/03/21 11:51	09/05/21 19:21	1
13C8 FOSA	88		25 - 135	09/03/21 11:51	09/05/21 19:21	1
13C4 PFBA	86		12 - 137	09/03/21 11:51	09/05/21 19:21	1
13C5 PFPeA	95		12 - 135	09/03/21 11:51	09/05/21 19:21	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.10	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Arsenic	2.2		1.1	0.11	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Barium	27.0		2.3	0.17	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Beryllium	0.34	J	0.46	0.065	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Chromium	12.3		2.3	0.20	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Copper	8.9		2.3	0.25	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Manganese	159		4.6	0.46	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Nickel	10.2		2.3	0.22	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Lead	12.8		0.69	0.23	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Selenium	1.4	U	1.4	0.14	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1
Zinc	27.8		9.2	2.6	mg/Kg	✱	09/09/21 04:07	09/09/21 10:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.021	0.0049	mg/Kg	✱	09/07/21 03:10	09/07/21 06:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.3		2.0	2.0	mg/Kg			09/19/21 22:00	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/16/21 19:45	09/17/21 15:10	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/25/21 11:10	09/26/21 19:05	1
Cyanide, Total	0.28	U	0.28	0.15	mg/Kg	✱	09/05/21 15:08	09/06/21 19:45	1
Percent Moisture	17.6		1.0	1.0	%			09/03/21 09:57	1
Percent Solids	82.4		1.0	1.0	%			09/03/21 09:57	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 066_TB-2B

Lab Sample ID: 460-241982-29

Date Collected: 08/31/21 08:00

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/04/21 00:22	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/04/21 00:22	1
Acetone	5.0	U	5.0	4.4	ug/L			09/04/21 00:22	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/04/21 00:22	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/04/21 00:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/04/21 00:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/04/21 00:22	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/04/21 00:22	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/04/21 00:22	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/04/21 00:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/04/21 00:22	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/04/21 00:22	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/04/21 00:22	1
Benzene	1.0	U	1.0	0.20	ug/L			09/04/21 00:22	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/04/21 00:22	1
Toluene	1.0	U	1.0	0.38	ug/L			09/04/21 00:22	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/04/21 00:22	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/04/21 00:22	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/04/21 00:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/04/21 00:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/04/21 00:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/04/21 00:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/04/21 00:22	1
1,4-Dioxane	50	U	50	28	ug/L			09/04/21 00:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 00:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/04/21 00:22	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 00:22	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 00:22	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/04/21 00:22	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 00:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 123		09/04/21 00:22	1
Toluene-d8 (Surr)	113		80 - 120		09/04/21 00:22	1
4-Bromofluorobenzene	92		76 - 120		09/04/21 00:22	1
Dibromofluoromethane (Surr)	100		77 - 124		09/04/21 00:22	1

Client Sample ID: 067_FB-2

Lab Sample ID: 460-241982-30

Date Collected: 08/31/21 07:30

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/04/21 00:43	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/04/21 00:43	1
Acetone	5.0	U	5.0	4.4	ug/L			09/04/21 00:43	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/04/21 00:43	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/04/21 00:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/04/21 00:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/04/21 00:43	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 067_FB-2

Lab Sample ID: 460-241982-30

Date Collected: 08/31/21 07:30

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	1.0	U	1.0	0.33	ug/L			09/04/21 00:43	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/04/21 00:43	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/04/21 00:43	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/04/21 00:43	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/04/21 00:43	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/04/21 00:43	1
Benzene	1.0	U	1.0	0.20	ug/L			09/04/21 00:43	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/04/21 00:43	1
Toluene	1.0	U	1.0	0.38	ug/L			09/04/21 00:43	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/04/21 00:43	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/04/21 00:43	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/04/21 00:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/04/21 00:43	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/04/21 00:43	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/04/21 00:43	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/04/21 00:43	1
1,4-Dioxane	50	U	50	28	ug/L			09/04/21 00:43	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 00:43	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/04/21 00:43	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 00:43	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 00:43	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/04/21 00:43	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		75 - 123		09/04/21 00:43	1
Toluene-d8 (Surr)	111		80 - 120		09/04/21 00:43	1
4-Bromofluorobenzene	90		76 - 120		09/04/21 00:43	1
Dibromofluoromethane (Surr)	100		77 - 124		09/04/21 00:43	1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.33	U	0.33	0.027	ug/L		09/01/21 23:00	09/02/21 14:26	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	60		10 - 150				09/01/21 23:00	09/02/21 14:26	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.013	U	0.013	0.00037	mg/L		09/02/21 10:25	09/03/21 03:42	1
2-Methylphenol	0.013	U	0.013	0.00084	mg/L		09/02/21 10:25	09/03/21 03:42	1
3 & 4 Methylphenol	0.013	U	0.013	0.00081	mg/L		09/02/21 10:25	09/03/21 03:42	1
Pentachlorophenol	0.025	U	0.025	0.0018	mg/L		09/02/21 10:25	09/03/21 03:42	1
Naphthalene	0.0025	U	0.0025	0.00068	mg/L		09/02/21 10:25	09/03/21 03:42	1
Acenaphthylene	0.013	U	0.013	0.0010	mg/L		09/02/21 10:25	09/03/21 03:42	1
Acenaphthene	0.013	U	0.013	0.0013	mg/L		09/02/21 10:25	09/03/21 03:42	1
Dibenzofuran	0.013	U	0.013	0.0014	mg/L		09/02/21 10:25	09/03/21 03:42	1
Fluorene	0.013	U	0.013	0.0011	mg/L		09/02/21 10:25	09/03/21 03:42	1
Hexachlorobenzene	0.0013	U	0.0013	0.00050	mg/L		09/02/21 10:25	09/03/21 03:42	1
Phenanthrene	0.013	U	0.013	0.0016	mg/L		09/02/21 10:25	09/03/21 03:42	1
Anthracene	0.013	U	0.013	0.0016	mg/L		09/02/21 10:25	09/03/21 03:42	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 067_FB-2

Lab Sample ID: 460-241982-30

Date Collected: 08/31/21 07:30

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.013	U	0.013	0.0011	mg/L		09/02/21 10:25	09/03/21 03:42	1
Pyrene	0.013	U	0.013	0.0021	mg/L		09/02/21 10:25	09/03/21 03:42	1
Benzo[a]anthracene	0.0013	U	0.0013	0.00074	mg/L		09/02/21 10:25	09/03/21 03:42	1
Chrysene	0.0025	U	0.0025	0.0011	mg/L		09/02/21 10:25	09/03/21 03:42	1
Benzo[b]fluoranthene	0.0025	U	0.0025	0.00085	mg/L		09/02/21 10:25	09/03/21 03:42	1
Benzo[k]fluoranthene	0.0013	U	0.0013	0.00084	mg/L		09/02/21 10:25	09/03/21 03:42	1
Benzo[a]pyrene	0.0013	U	0.0013	0.00051	mg/L		09/02/21 10:25	09/03/21 03:42	1
Indeno[1,2,3-cd]pyrene	0.0025	U	0.0025	0.0012	mg/L		09/02/21 10:25	09/03/21 03:42	1
Dibenz[a,h]anthracene	0.0013	U	0.0013	0.00090	mg/L		09/02/21 10:25	09/03/21 03:42	1
Benzo[g,h,i]perylene	0.013	U	0.013	0.00088	mg/L		09/02/21 10:25	09/03/21 03:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	113		46 - 137	09/02/21 10:25	09/03/21 03:42	1
Phenol-d5 (Surr)	42		10 - 50	09/02/21 10:25	09/03/21 03:42	1
Terphenyl-d14 (Surr)	122		39 - 150	09/02/21 10:25	09/03/21 03:42	1
2,4,6-Tribromophenol (Surr)	81		33 - 150	09/02/21 10:25	09/03/21 03:42	1
2-Fluorophenol (Surr)	64		18 - 72	09/02/21 10:25	09/03/21 03:42	1
2-Fluorobiphenyl	95		42 - 127	09/02/21 10:25	09/03/21 03:42	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 17:39	1
alpha-BHC	0.033	U	0.033	0.012	ug/L		09/02/21 08:19	09/02/21 17:39	1
beta-BHC	0.033	U	0.033	0.025	ug/L		09/02/21 08:19	09/02/21 17:39	1
delta-BHC	0.033	U	0.033	0.0083	ug/L		09/02/21 08:19	09/02/21 17:39	1
gamma-BHC (Lindane)	0.033	U	0.033	0.020	ug/L		09/02/21 08:19	09/02/21 17:39	1
Chlordane (technical)	0.83	U	0.83	0.092	ug/L		09/02/21 08:19	09/02/21 17:39	1
4,4'-DDD	0.033	U	0.033	0.010	ug/L		09/02/21 08:19	09/02/21 17:39	1
4,4'-DDE	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 17:39	1
4,4'-DDT	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 17:39	1
Dieldrin	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 17:39	1
Endosulfan I	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 17:39	1
Endosulfan II	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 17:39	1
Endosulfan sulfate	0.033	U	0.033	0.010	ug/L		09/02/21 08:19	09/02/21 17:39	1
Endrin	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 17:39	1
Endrin aldehyde	0.033	U	0.033	0.013	ug/L		09/02/21 08:19	09/02/21 17:39	1
Endrin ketone	0.033	U	0.033	0.013	ug/L		09/02/21 08:19	09/02/21 17:39	1
Heptachlor	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 17:39	1
Heptachlor epoxide	0.033	U	0.033	0.0083	ug/L		09/02/21 08:19	09/02/21 17:39	1
Methoxychlor	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 17:39	1
Toxaphene	0.83	U	0.83	0.18	ug/L		09/02/21 08:19	09/02/21 17:39	1
cis-Chlordane	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		10 - 150	09/02/21 08:19	09/02/21 17:39	1
Tetrachloro-m-xylene	79		10 - 150	09/02/21 08:19	09/02/21 17:39	1
DCB Decachlorobiphenyl	86		10 - 150	09/02/21 08:19	09/02/21 17:39	1
DCB Decachlorobiphenyl	86		10 - 150	09/02/21 08:19	09/02/21 17:39	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 067_FB-2

Lab Sample ID: 460-241982-30

Date Collected: 08/31/21 07:30

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:06	1
Aroclor 1221	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:06	1
Aroclor 1232	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:06	1
Aroclor 1242	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:06	1
Aroclor 1248	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:06	1
Aroclor 1254	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:06	1
Aroclor 1260	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:06	1
Aroclor-1262	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:06	1
Aroclor 1268	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:06	1
Polychlorinated biphenyls, Total	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	60		10 - 138	09/02/21 08:11	09/02/21 19:06	1
DCB Decachlorobiphenyl	74		10 - 138	09/02/21 08:11	09/02/21 19:06	1
Tetrachloro-m-xylene	41		10 - 150	09/02/21 08:11	09/02/21 19:06	1
Tetrachloro-m-xylene	68		10 - 150	09/02/21 08:11	09/02/21 19:06	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		09/03/21 00:11	09/03/21 15:31	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		09/03/21 00:11	09/03/21 15:31	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		09/03/21 00:11	09/03/21 15:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	73		28 - 150	09/03/21 00:11	09/03/21 15:31	1
2,4-Dichlorophenylacetic acid	80		28 - 150	09/03/21 00:11	09/03/21 15:31	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluoroheptanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorooctanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorononanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorodecanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorotridecanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorotetradecanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorobutanesulfonic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorohexanesulfonic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorooctanesulfonic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
NEtFOSAA	3.48	U	3.48	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
NMeFOSAA	2.32	U	2.32	0.70	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluoroheptanesulfonic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorodecanesulfonic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorooctanesulfonamide	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorobutanoic acid	5.80	U	5.80	2.32	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluoroundecanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluorododecanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1
6:2 Fluorotelomer sulfonic acid	5.80	U	5.80	2.32	ng/L		09/03/21 07:46	09/06/21 04:54	1
8:2 Fluorotelomer sulfonic acid	3.48	U	3.48	1.16	ng/L		09/03/21 07:46	09/06/21 04:54	1
Perfluoropentanoic acid	2.32	U	2.32	0.58	ng/L		09/03/21 07:46	09/06/21 04:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 067_FB-2

Date Collected: 08/31/21 07:30

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-30

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	155		34 - 182	09/03/21 07:46	09/06/21 04:54	1
M2-6:2 FTS	141		29 - 189	09/03/21 07:46	09/06/21 04:54	1
13C5 PFHxA	123		31 - 142	09/03/21 07:46	09/06/21 04:54	1
13C4 PFHpA	124		30 - 144	09/03/21 07:46	09/06/21 04:54	1
13C8 PFOA	136 *		49 - 127	09/03/21 07:46	09/06/21 04:54	1
13C9 PFNA	137 *		47 - 136	09/03/21 07:46	09/06/21 04:54	1
13C6 PFDA	141 *		47 - 128	09/03/21 07:46	09/06/21 04:54	1
13C7 PFUnA	148 *		40 - 135	09/03/21 07:46	09/06/21 04:54	1
13C2-PFDoDA	135		28 - 136	09/03/21 07:46	09/06/21 04:54	1
13C2 PFTeDA	130		10 - 144	09/03/21 07:46	09/06/21 04:54	1
13C3 PFBS	164		19 - 178	09/03/21 07:46	09/06/21 04:54	1
13C3 PFHxS	136		32 - 145	09/03/21 07:46	09/06/21 04:54	1
13C8 PFOS	136 *		49 - 126	09/03/21 07:46	09/06/21 04:54	1
d3-NMeFOSAA	149		32 - 151	09/03/21 07:46	09/06/21 04:54	1
d5-NEtFOSAA	148		37 - 164	09/03/21 07:46	09/06/21 04:54	1
13C8 FOSA	95		10 - 143	09/03/21 07:46	09/06/21 04:54	1
13C4 PFBA	123		41 - 132	09/03/21 07:46	09/06/21 04:54	1
13C5 PFPeA	133		33 - 155	09/03/21 07:46	09/06/21 04:54	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		09/04/21 10:04	09/07/21 19:11	1
Arsenic	2.0	U	2.0	0.89	ug/L		09/04/21 10:04	09/07/21 19:11	1
Barium	4.0	U	4.0	0.91	ug/L		09/04/21 10:04	09/07/21 19:11	1
Beryllium	0.80	U	0.80	0.13	ug/L		09/04/21 10:04	09/07/21 19:11	1
Cadmium	2.0	U	2.0	0.39	ug/L		09/04/21 10:04	09/07/21 19:11	1
Chromium	4.0	U	4.0	2.5	ug/L		09/04/21 10:04	09/07/21 19:11	1
Copper	4.0	U	4.0	2.5	ug/L		09/04/21 10:04	09/07/21 19:11	1
Manganese	8.0	U	8.0	1.5	ug/L		09/04/21 10:04	09/07/21 19:11	1
Nickel	4.0	U	4.0	0.91	ug/L		09/04/21 10:04	09/07/21 19:11	1
Lead	1.2	U	1.2	0.84	ug/L		09/04/21 10:04	09/07/21 19:11	1
Selenium	2.5	U	2.5	0.59	ug/L		09/04/21 10:04	09/07/21 19:11	1
Zinc	16.0	U	16.0	6.5	ug/L		09/04/21 10:04	09/07/21 19:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		09/07/21 12:24	09/07/21 15:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.0	U	10.0	10.0	ug/L			09/08/21 16:00	1
Cr (VI)	10.0	U H	10.0	8.1	ug/L			09/04/21 11:45	1
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		09/03/21 23:17	09/05/21 14:07	1

Client Sample ID: 068_FB-3

Date Collected: 08/31/21 08:30

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-31

Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/04/21 01:03	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/04/21 01:03	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 068_FB-3

Lab Sample ID: 460-241982-31

Date Collected: 08/31/21 08:30

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	5.0	4.4	ug/L			09/04/21 01:03	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/04/21 01:03	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/04/21 01:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/04/21 01:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/04/21 01:03	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/04/21 01:03	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/04/21 01:03	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/04/21 01:03	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/04/21 01:03	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/04/21 01:03	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/04/21 01:03	1
Benzene	1.0	U	1.0	0.20	ug/L			09/04/21 01:03	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/04/21 01:03	1
Toluene	1.0	U	1.0	0.38	ug/L			09/04/21 01:03	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/04/21 01:03	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/04/21 01:03	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/04/21 01:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/04/21 01:03	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/04/21 01:03	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/04/21 01:03	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/04/21 01:03	1
1,4-Dioxane	50	U	50	28	ug/L			09/04/21 01:03	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 01:03	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/04/21 01:03	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 01:03	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 01:03	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/04/21 01:03	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 01:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 123		09/04/21 01:03	1
Toluene-d8 (Surr)	112		80 - 120		09/04/21 01:03	1
4-Bromofluorobenzene	91		76 - 120		09/04/21 01:03	1
Dibromofluoromethane (Surr)	100		77 - 124		09/04/21 01:03	1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.33	U	0.33	0.027	ug/L		09/01/21 23:00	09/02/21 14:42	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	68		10 - 150				09/01/21 23:00	09/02/21 14:42	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.013	U	0.013	0.00037	mg/L		09/02/21 10:25	09/03/21 04:04	1
2-Methylphenol	0.013	U	0.013	0.00084	mg/L		09/02/21 10:25	09/03/21 04:04	1
3 & 4 Methylphenol	0.013	U	0.013	0.00081	mg/L		09/02/21 10:25	09/03/21 04:04	1
Pentachlorophenol	0.025	U	0.025	0.0018	mg/L		09/02/21 10:25	09/03/21 04:04	1
Naphthalene	0.0025	U	0.0025	0.00068	mg/L		09/02/21 10:25	09/03/21 04:04	1
Acenaphthylene	0.013	U	0.013	0.0010	mg/L		09/02/21 10:25	09/03/21 04:04	1
Acenaphthene	0.013	U	0.013	0.0013	mg/L		09/02/21 10:25	09/03/21 04:04	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 068_FB-3

Lab Sample ID: 460-241982-31

Date Collected: 08/31/21 08:30

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.013	U	0.013	0.0014	mg/L		09/02/21 10:25	09/03/21 04:04	1
Fluorene	0.013	U	0.013	0.0011	mg/L		09/02/21 10:25	09/03/21 04:04	1
Hexachlorobenzene	0.0013	U	0.0013	0.00050	mg/L		09/02/21 10:25	09/03/21 04:04	1
Phenanthrene	0.013	U	0.013	0.0016	mg/L		09/02/21 10:25	09/03/21 04:04	1
Anthracene	0.013	U	0.013	0.0016	mg/L		09/02/21 10:25	09/03/21 04:04	1
Fluoranthene	0.013	U	0.013	0.0011	mg/L		09/02/21 10:25	09/03/21 04:04	1
Pyrene	0.013	U	0.013	0.0021	mg/L		09/02/21 10:25	09/03/21 04:04	1
Benzo[a]anthracene	0.0013	U	0.0013	0.00074	mg/L		09/02/21 10:25	09/03/21 04:04	1
Chrysene	0.0025	U	0.0025	0.0011	mg/L		09/02/21 10:25	09/03/21 04:04	1
Benzo[b]fluoranthene	0.0025	U	0.0025	0.00085	mg/L		09/02/21 10:25	09/03/21 04:04	1
Benzo[k]fluoranthene	0.0013	U	0.0013	0.00084	mg/L		09/02/21 10:25	09/03/21 04:04	1
Benzo[a]pyrene	0.0013	U	0.0013	0.00051	mg/L		09/02/21 10:25	09/03/21 04:04	1
Indeno[1,2,3-cd]pyrene	0.0025	U	0.0025	0.0012	mg/L		09/02/21 10:25	09/03/21 04:04	1
Dibenz(a,h)anthracene	0.0013	U	0.0013	0.00090	mg/L		09/02/21 10:25	09/03/21 04:04	1
Benzo[g,h,i]perylene	0.013	U	0.013	0.00088	mg/L		09/02/21 10:25	09/03/21 04:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	104		46 - 137	09/02/21 10:25	09/03/21 04:04	1
Phenol-d5 (Surr)	38		10 - 50	09/02/21 10:25	09/03/21 04:04	1
Terphenyl-d14 (Surr)	118		39 - 150	09/02/21 10:25	09/03/21 04:04	1
2,4,6-Tribromophenol (Surr)	73		33 - 150	09/02/21 10:25	09/03/21 04:04	1
2-Fluorophenol (Surr)	59		18 - 72	09/02/21 10:25	09/03/21 04:04	1
2-Fluorobiphenyl	85		42 - 127	09/02/21 10:25	09/03/21 04:04	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 17:51	1
alpha-BHC	0.033	U	0.033	0.012	ug/L		09/02/21 08:19	09/02/21 17:51	1
beta-BHC	0.033	U	0.033	0.025	ug/L		09/02/21 08:19	09/02/21 17:51	1
delta-BHC	0.033	U	0.033	0.0083	ug/L		09/02/21 08:19	09/02/21 17:51	1
gamma-BHC (Lindane)	0.033	U	0.033	0.020	ug/L		09/02/21 08:19	09/02/21 17:51	1
Chlordane (technical)	0.83	U	0.83	0.092	ug/L		09/02/21 08:19	09/02/21 17:51	1
4,4'-DDD	0.033	U	0.033	0.010	ug/L		09/02/21 08:19	09/02/21 17:51	1
4,4'-DDE	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 17:51	1
4,4'-DDT	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 17:51	1
Dieldrin	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 17:51	1
Endosulfan I	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 17:51	1
Endosulfan II	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 17:51	1
Endosulfan sulfate	0.033	U	0.033	0.010	ug/L		09/02/21 08:19	09/02/21 17:51	1
Endrin	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 17:51	1
Endrin aldehyde	0.033	U	0.033	0.013	ug/L		09/02/21 08:19	09/02/21 17:51	1
Endrin ketone	0.033	U	0.033	0.013	ug/L		09/02/21 08:19	09/02/21 17:51	1
Heptachlor	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 17:51	1
Heptachlor epoxide	0.033	U	0.033	0.0083	ug/L		09/02/21 08:19	09/02/21 17:51	1
Methoxychlor	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 17:51	1
Toxaphene	0.83	U	0.83	0.18	ug/L		09/02/21 08:19	09/02/21 17:51	1
cis-Chlordane	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		10 - 150	09/02/21 08:19	09/02/21 17:51	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 068_FB-3

Lab Sample ID: 460-241982-31

Date Collected: 08/31/21 08:30

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		10 - 150	09/02/21 08:19	09/02/21 17:51	1
DCB Decachlorobiphenyl	77		10 - 150	09/02/21 08:19	09/02/21 17:51	1
DCB Decachlorobiphenyl	75		10 - 150	09/02/21 08:19	09/02/21 17:51	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:26	1
Aroclor 1221	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:26	1
Aroclor 1232	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:26	1
Aroclor 1242	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:26	1
Aroclor 1248	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:26	1
Aroclor 1254	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:26	1
Aroclor 1260	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:26	1
Aroclor-1262	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:26	1
Aroclor 1268	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:26	1
Polychlorinated biphenyls, Total	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	51		10 - 138	09/02/21 08:11	09/02/21 19:26	1
DCB Decachlorobiphenyl	64		10 - 138	09/02/21 08:11	09/02/21 19:26	1
Tetrachloro-m-xylene	34		10 - 150	09/02/21 08:11	09/02/21 19:26	1
Tetrachloro-m-xylene	59		10 - 150	09/02/21 08:11	09/02/21 19:26	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		09/03/21 00:11	09/03/21 15:45	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		09/03/21 00:11	09/03/21 15:45	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		09/03/21 00:11	09/03/21 15:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	69		28 - 150	09/03/21 00:11	09/03/21 15:45	1
2,4-Dichlorophenylacetic acid	79		28 - 150	09/03/21 00:11	09/03/21 15:45	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluoroheptanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorooctanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorononanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorodecanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorotridecanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorotetradecanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorobutanesulfonic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorohexanesulfonic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorooctanesulfonic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
NEtFOSAA	4.17	U	4.17	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
NMeFOSAA	2.78	U	2.78	0.83	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluoroheptanesulfonic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorodecanesulfonic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorooctanesulfonamide	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 068_FB-3

Lab Sample ID: 460-241982-31

Date Collected: 08/31/21 08:30

Matrix: Water

Date Received: 09/01/21 18:00

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	6.94	U	6.94	2.78	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluoroundecanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluorododecanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
6:2 Fluorotelomer sulfonic acid	6.94	U	6.94	2.78	ng/L		09/03/21 07:46	09/06/21 05:05	1
8:2 Fluorotelomer sulfonic acid	4.17	U	4.17	1.39	ng/L		09/03/21 07:46	09/06/21 05:05	1
Perfluoropentanoic acid	2.78	U	2.78	0.69	ng/L		09/03/21 07:46	09/06/21 05:05	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	136		34 - 182				09/03/21 07:46	09/06/21 05:05	1
M2-6:2 FTS	185		29 - 189				09/03/21 07:46	09/06/21 05:05	1
13C5 PFHxA	134		31 - 142				09/03/21 07:46	09/06/21 05:05	1
13C4 PFHpA	131		30 - 144				09/03/21 07:46	09/06/21 05:05	1
13C8 PFOA	143 *		49 - 127				09/03/21 07:46	09/06/21 05:05	1
13C9 PFNA	141 *		47 - 136				09/03/21 07:46	09/06/21 05:05	1
13C6 PFDA	145 *		47 - 128				09/03/21 07:46	09/06/21 05:05	1
13C7 PFUnA	142 *		40 - 135				09/03/21 07:46	09/06/21 05:05	1
13C2-PFDoDA	151 *		28 - 136				09/03/21 07:46	09/06/21 05:05	1
13C2 PFTeDA	135		10 - 144				09/03/21 07:46	09/06/21 05:05	1
13C3 PFBS	159		19 - 178				09/03/21 07:46	09/06/21 05:05	1
13C3 PFHxS	137		32 - 145				09/03/21 07:46	09/06/21 05:05	1
13C8 PFOS	140 *		49 - 126				09/03/21 07:46	09/06/21 05:05	1
d3-NMeFOSAA	158 *		32 - 151				09/03/21 07:46	09/06/21 05:05	1
d5-NEtFOSAA	153		37 - 164				09/03/21 07:46	09/06/21 05:05	1
13C8 FOSA	107		10 - 143				09/03/21 07:46	09/06/21 05:05	1
13C4 PFBA	133 *		41 - 132				09/03/21 07:46	09/06/21 05:05	1
13C5 PFPeA	143		33 - 155				09/03/21 07:46	09/06/21 05:05	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		09/04/21 10:04	09/07/21 19:18	1
Arsenic	2.0	U	2.0	0.89	ug/L		09/04/21 10:04	09/07/21 19:18	1
Barium	4.0	U	4.0	0.91	ug/L		09/04/21 10:04	09/07/21 19:18	1
Beryllium	0.80	U	0.80	0.13	ug/L		09/04/21 10:04	09/07/21 19:18	1
Cadmium	2.0	U	2.0	0.39	ug/L		09/04/21 10:04	09/07/21 19:18	1
Chromium	4.0	U	4.0	2.5	ug/L		09/04/21 10:04	09/07/21 19:18	1
Copper	4.0	U	4.0	2.5	ug/L		09/04/21 10:04	09/07/21 19:18	1
Manganese	8.0	U	8.0	1.5	ug/L		09/04/21 10:04	09/07/21 19:18	1
Nickel	4.0	U	4.0	0.91	ug/L		09/04/21 10:04	09/07/21 19:18	1
Lead	1.2	U	1.2	0.84	ug/L		09/04/21 10:04	09/07/21 19:18	1
Selenium	2.5	U	2.5	0.59	ug/L		09/04/21 10:04	09/07/21 19:18	1
Zinc	16.0	U	16.0	6.5	ug/L		09/04/21 10:04	09/07/21 19:18	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		09/07/21 12:24	09/07/21 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.0	U	10.0	10.0	ug/L			09/08/21 16:00	1
Cr (VI)	10.0	U H	10.0	8.1	ug/L			09/04/21 11:45	1
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		09/03/21 23:17	09/05/21 14:08	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 069_FB-4

Lab Sample ID: 460-241982-32

Date Collected: 08/31/21 12:45

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/04/21 01:24	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/04/21 01:24	1
Acetone	5.0	U	5.0	4.4	ug/L			09/04/21 01:24	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/04/21 01:24	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/04/21 01:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/04/21 01:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/04/21 01:24	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/04/21 01:24	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/04/21 01:24	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/04/21 01:24	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/04/21 01:24	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/04/21 01:24	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/04/21 01:24	1
Benzene	1.0	U	1.0	0.20	ug/L			09/04/21 01:24	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/04/21 01:24	1
Toluene	1.0	U	1.0	0.38	ug/L			09/04/21 01:24	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/04/21 01:24	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/04/21 01:24	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/04/21 01:24	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/04/21 01:24	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/04/21 01:24	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/04/21 01:24	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/04/21 01:24	1
1,4-Dioxane	50	U	50	28	ug/L			09/04/21 01:24	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 01:24	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/04/21 01:24	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 01:24	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 01:24	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/04/21 01:24	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		75 - 123		09/04/21 01:24	1
Toluene-d8 (Surr)	112		80 - 120		09/04/21 01:24	1
4-Bromofluorobenzene	92		76 - 120		09/04/21 01:24	1
Dibromofluoromethane (Surr)	101		77 - 124		09/04/21 01:24	1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.33	U	0.33	0.027	ug/L		09/01/21 23:00	09/02/21 14:58	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	64		10 - 150				09/01/21 23:00	09/02/21 14:58	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.013	U	0.013	0.00037	mg/L		09/02/21 10:29	09/03/21 04:25	1
2-Methylphenol	0.013	U	0.013	0.00084	mg/L		09/02/21 10:29	09/03/21 04:25	1
3 & 4 Methylphenol	0.013	U	0.013	0.00081	mg/L		09/02/21 10:29	09/03/21 04:25	1
Pentachlorophenol	0.025	U	0.025	0.0018	mg/L		09/02/21 10:29	09/03/21 04:25	1
Naphthalene	0.0025	U	0.0025	0.00068	mg/L		09/02/21 10:29	09/03/21 04:25	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 069_FB-4

Lab Sample ID: 460-241982-32

Date Collected: 08/31/21 12:45

Matrix: Water

Date Received: 09/01/21 18:00

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.013	U	0.013	0.0010	mg/L		09/02/21 10:29	09/03/21 04:25	1
Acenaphthene	0.013	U	0.013	0.0013	mg/L		09/02/21 10:29	09/03/21 04:25	1
Dibenzofuran	0.013	U	0.013	0.0014	mg/L		09/02/21 10:29	09/03/21 04:25	1
Fluorene	0.013	U	0.013	0.0011	mg/L		09/02/21 10:29	09/03/21 04:25	1
Hexachlorobenzene	0.0013	U	0.0013	0.00050	mg/L		09/02/21 10:29	09/03/21 04:25	1
Phenanthrene	0.013	U	0.013	0.0016	mg/L		09/02/21 10:29	09/03/21 04:25	1
Anthracene	0.013	U	0.013	0.0016	mg/L		09/02/21 10:29	09/03/21 04:25	1
Fluoranthene	0.013	U	0.013	0.0011	mg/L		09/02/21 10:29	09/03/21 04:25	1
Pyrene	0.013	U	0.013	0.0021	mg/L		09/02/21 10:29	09/03/21 04:25	1
Benzo[a]anthracene	0.0013	U	0.0013	0.00074	mg/L		09/02/21 10:29	09/03/21 04:25	1
Chrysene	0.0025	U	0.0025	0.0011	mg/L		09/02/21 10:29	09/03/21 04:25	1
Benzo[b]fluoranthene	0.0025	U	0.0025	0.00085	mg/L		09/02/21 10:29	09/03/21 04:25	1
Benzo[k]fluoranthene	0.0013	U	0.0013	0.00084	mg/L		09/02/21 10:29	09/03/21 04:25	1
Benzo[a]pyrene	0.0013	U	0.0013	0.00051	mg/L		09/02/21 10:29	09/03/21 04:25	1
Indeno[1,2,3-cd]pyrene	0.0025	U	0.0025	0.0012	mg/L		09/02/21 10:29	09/03/21 04:25	1
Dibenz(a,h)anthracene	0.0013	U	0.0013	0.00090	mg/L		09/02/21 10:29	09/03/21 04:25	1
Benzo[g,h,i]perylene	0.013	U	0.013	0.00088	mg/L		09/02/21 10:29	09/03/21 04:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	104		46 - 137	09/02/21 10:29	09/03/21 04:25	1
Phenol-d5 (Surr)	38		10 - 50	09/02/21 10:29	09/03/21 04:25	1
Terphenyl-d14 (Surr)	125		39 - 150	09/02/21 10:29	09/03/21 04:25	1
2,4,6-Tribromophenol (Surr)	70		33 - 150	09/02/21 10:29	09/03/21 04:25	1
2-Fluorophenol (Surr)	59		18 - 72	09/02/21 10:29	09/03/21 04:25	1
2-Fluorobiphenyl	87		42 - 127	09/02/21 10:29	09/03/21 04:25	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 18:04	1
alpha-BHC	0.033	U	0.033	0.012	ug/L		09/02/21 08:19	09/02/21 18:04	1
beta-BHC	0.033	U	0.033	0.025	ug/L		09/02/21 08:19	09/02/21 18:04	1
delta-BHC	0.033	U	0.033	0.0083	ug/L		09/02/21 08:19	09/02/21 18:04	1
gamma-BHC (Lindane)	0.033	U	0.033	0.020	ug/L		09/02/21 08:19	09/02/21 18:04	1
Chlordane (technical)	0.83	U	0.83	0.092	ug/L		09/02/21 08:19	09/02/21 18:04	1
4,4'-DDD	0.033	U	0.033	0.010	ug/L		09/02/21 08:19	09/02/21 18:04	1
4,4'-DDE	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 18:04	1
4,4'-DDT	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 18:04	1
Dieldrin	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 18:04	1
Endosulfan I	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 18:04	1
Endosulfan II	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 18:04	1
Endosulfan sulfate	0.033	U	0.033	0.010	ug/L		09/02/21 08:19	09/02/21 18:04	1
Endrin	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 18:04	1
Endrin aldehyde	0.033	U	0.033	0.013	ug/L		09/02/21 08:19	09/02/21 18:04	1
Endrin ketone	0.033	U	0.033	0.013	ug/L		09/02/21 08:19	09/02/21 18:04	1
Heptachlor	0.033	U	0.033	0.0050	ug/L		09/02/21 08:19	09/02/21 18:04	1
Heptachlor epoxide	0.033	U	0.033	0.0083	ug/L		09/02/21 08:19	09/02/21 18:04	1
Methoxychlor	0.033	U	0.033	0.0067	ug/L		09/02/21 08:19	09/02/21 18:04	1
Toxaphene	0.83	U	0.83	0.18	ug/L		09/02/21 08:19	09/02/21 18:04	1
cis-Chlordane	0.033	U	0.033	0.0033	ug/L		09/02/21 08:19	09/02/21 18:04	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 069_FB-4

Lab Sample ID: 460-241982-32

Date Collected: 08/31/21 12:45

Matrix: Water

Date Received: 09/01/21 18:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		10 - 150	09/02/21 08:19	09/02/21 18:04	1
Tetrachloro-m-xylene	74		10 - 150	09/02/21 08:19	09/02/21 18:04	1
DCB Decachlorobiphenyl	82		10 - 150	09/02/21 08:19	09/02/21 18:04	1
DCB Decachlorobiphenyl	79		10 - 150	09/02/21 08:19	09/02/21 18:04	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:45	1
Aroclor 1221	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:45	1
Aroclor 1232	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:45	1
Aroclor 1242	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:45	1
Aroclor 1248	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:45	1
Aroclor 1254	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:45	1
Aroclor 1260	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:45	1
Aroclor-1262	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:45	1
Aroclor 1268	0.67	U	0.67	0.18	ug/L		09/02/21 08:11	09/02/21 19:45	1
Polychlorinated biphenyls, Total	0.67	U	0.67	0.20	ug/L		09/02/21 08:11	09/02/21 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	46		10 - 138	09/02/21 08:11	09/02/21 19:45	1
DCB Decachlorobiphenyl	56		10 - 138	09/02/21 08:11	09/02/21 19:45	1
Tetrachloro-m-xylene	30		10 - 150	09/02/21 08:11	09/02/21 19:45	1
Tetrachloro-m-xylene	49		10 - 150	09/02/21 08:11	09/02/21 19:45	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		09/03/21 00:11	09/03/21 16:00	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		09/03/21 00:11	09/03/21 16:00	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		09/03/21 00:11	09/03/21 16:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	76		28 - 150	09/03/21 00:11	09/03/21 16:00	1
2,4-Dichlorophenylacetic acid	84		28 - 150	09/03/21 00:11	09/03/21 16:00	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluoroheptanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorooctanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorononanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorodecanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorotridecanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorotetradecanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorobutanesulfonic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorohexanesulfonic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorooctanesulfonic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
NEtFOSAA	4.40	U	4.40	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
NMeFOSAA	2.93	U	2.93	0.88	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluoroheptanesulfonic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorodecanesulfonic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorooctanesulfonamide	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 069_FB-4

Lab Sample ID: 460-241982-32

Date Collected: 08/31/21 12:45

Matrix: Water

Date Received: 09/01/21 18:00

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	7.33	U	7.33	2.93	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluoroundecanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluorododecanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
6:2 Fluorotelomer sulfonic acid	7.33	U	7.33	2.93	ng/L		09/03/21 07:46	09/06/21 05:16	1
8:2 Fluorotelomer sulfonic acid	4.40	U	4.40	1.47	ng/L		09/03/21 07:46	09/06/21 05:16	1
Perfluoropentanoic acid	2.93	U	2.93	0.73	ng/L		09/03/21 07:46	09/06/21 05:16	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	150		34 - 182				09/03/21 07:46	09/06/21 05:16	1
M2-6:2 FTS	167		29 - 189				09/03/21 07:46	09/06/21 05:16	1
13C5 PFHxA	114		31 - 142				09/03/21 07:46	09/06/21 05:16	1
13C4 PFHpA	117		30 - 144				09/03/21 07:46	09/06/21 05:16	1
13C8 PFOA	139 *		49 - 127				09/03/21 07:46	09/06/21 05:16	1
13C9 PFNA	142 *		47 - 136				09/03/21 07:46	09/06/21 05:16	1
13C6 PFDA	142 *		47 - 128				09/03/21 07:46	09/06/21 05:16	1
13C7 PFUnA	140 *		40 - 135				09/03/21 07:46	09/06/21 05:16	1
13C2-PFDoDA	136		28 - 136				09/03/21 07:46	09/06/21 05:16	1
13C2 PFTeDA	135		10 - 144				09/03/21 07:46	09/06/21 05:16	1
13C3 PFBS	162		19 - 178				09/03/21 07:46	09/06/21 05:16	1
13C3 PFHxS	127		32 - 145				09/03/21 07:46	09/06/21 05:16	1
13C8 PFOS	144 *		49 - 126				09/03/21 07:46	09/06/21 05:16	1
d3-NMeFOSAA	151		32 - 151				09/03/21 07:46	09/06/21 05:16	1
d5-NEtFOSAA	163		37 - 164				09/03/21 07:46	09/06/21 05:16	1
13C8 FOSA	107		10 - 143				09/03/21 07:46	09/06/21 05:16	1
13C4 PFBA	132		41 - 132				09/03/21 07:46	09/06/21 05:16	1
13C5 PFPeA	142		33 - 155				09/03/21 07:46	09/06/21 05:16	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		09/04/21 10:04	09/07/21 19:20	1
Arsenic	2.0	U	2.0	0.89	ug/L		09/04/21 10:04	09/07/21 19:20	1
Barium	4.0	U	4.0	0.91	ug/L		09/04/21 10:04	09/07/21 19:20	1
Beryllium	0.80	U	0.80	0.13	ug/L		09/04/21 10:04	09/07/21 19:20	1
Cadmium	2.0	U	2.0	0.39	ug/L		09/04/21 10:04	09/07/21 19:20	1
Chromium	4.0	U	4.0	2.5	ug/L		09/04/21 10:04	09/07/21 19:20	1
Copper	4.0	U	4.0	2.5	ug/L		09/04/21 10:04	09/07/21 19:20	1
Manganese	8.0	U	8.0	1.5	ug/L		09/04/21 10:04	09/07/21 19:20	1
Nickel	4.0	U	4.0	0.91	ug/L		09/04/21 10:04	09/07/21 19:20	1
Lead	1.2	U	1.2	0.84	ug/L		09/04/21 10:04	09/07/21 19:20	1
Selenium	2.5	U	2.5	0.59	ug/L		09/04/21 10:04	09/07/21 19:20	1
Zinc	16.0	U	16.0	6.5	ug/L		09/04/21 10:04	09/07/21 19:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		09/07/21 12:24	09/07/21 15:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.0	U	10.0	10.0	ug/L			09/08/21 16:00	1
Cr (VI)	10.0	U H	10.0	8.1	ug/L			09/04/21 11:45	1
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		09/03/21 23:17	09/05/21 14:09	1

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-241982-12	049_LB-31-5-7	117	111	111	110
460-241982-13	050_LB-31-15-16	120	111	102	109
460-241982-14	051_LB-32-5-7	122	115	114	112
460-241982-15	052_LB-32-15-16	119	115	117	116
460-241982-16	053_LB-33-5-7	121	113	101	113
460-241982-17	054_LB-33-15-16	118	116	115	115
460-241982-18	055_LB-34-5-7	121	116	51	113
460-241982-19	056_LB-34-15-16	117	116	110	115
460-241982-20	057_LB-46-15-16	116	115	112	112
460-241982-21	058_LB-45-11-13	122	105	116	117
460-241982-22	059_LB-45-15-16	125	116	119	116
460-241982-23	060_LB-44-8-10	119	118	118	114
460-241982-24	061_LB-44-15-16	120	117	114	112
460-241982-25	062_LB-43-9-11	121	116	116	113
460-241982-26	063_LB-43-15-16	120	117	116	113
460-241982-27	064_LB-42-5-7	123	117	118	116
460-241982-28	065_LB-42-15-16	120	118	117	117
LCS 460-799504/4	Lab Control Sample	112	115	110	118
LCS 460-799587/3	Lab Control Sample	112	112	107	114
LCSD 460-799504/5	Lab Control Sample Dup	109	111	107	113
LCSD 460-799587/4	Lab Control Sample Dup	112	111	107	113
MB 460-799504/8	Method Blank	118	114	114	112
MB 460-799587/7	Method Blank	112	112	110	109

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	BFB (76-120)	TOL (80-120)	DBFM (77-124)
460-241937-B-8 MS	Matrix Spike	116	94	111	97
460-241937-B-8 MSD	Matrix Spike Duplicate	114	93	111	99
460-241982-29	066_TB-2B	110	92	113	100
460-241982-30	067_FB-2	111	90	111	100
460-241982-31	068_FB-3	112	91	112	100
460-241982-32	069_FB-4	113	92	112	101
LCS 460-799733/4	Lab Control Sample	112	93	111	98
LCS 460-799782/5	Lab Control Sample	112	93	110	97
MB 460-799733/8	Method Blank	111	91	112	100
MB 460-799782/8	Method Blank	111	93	112	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

TOL = Toluene-d8 (Surr)

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
 Project/Site: 2455 Third Avenue , Bronx, NY
 DBFM = Dibromofluoromethane (Surr)

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-241982-1	038_LB-49-8-10	47	52	54	48	51	47
460-241982-2	039_LB-49-15-16	69	77	81	58	75	66
460-241982-3	040_LB-48-5-7	64	72	75	62	70	61
460-241982-4	041_LB-48-15-16	57	65	66	58	63	52
460-241982-5	042_LB-47-15-16	54	61	77	59	58	50
460-241982-5 MS	042_LB-47-15-16	64	71	76	63	69	59
460-241982-5 MSD	042_LB-47-15-16	62	69	69	58	67	57
460-241982-6	043_HS-2-8-10	60	66	67	54	65	56
460-241982-7	044_HS-2-10-12	60	65	64	52	65	53
460-241982-8	045_LB-27-6-8	61	69	69	56	67	56
460-241982-9	046_LB-27-15-16	69	62	75	58	66	59
460-241982-9 MS	046_LB-27-15-16	59	59	72	62	56	54
460-241982-9 MSD	046_LB-27-15-16	60	62	74	64	60	54
460-241982-10	047_HS-1-8-10	66	66	80	58	65	60
460-241982-11	048_HS-1-10-12	66	60	78	62	63	60
460-241982-12	049_LB-31-5-7	61	60	71	49	58	54
460-241982-13	050_LB-31-15-16	61	61	71	33	52	55
460-241982-14	051_LB-32-5-7	59	58	69	45	57	52
460-241982-15	052_LB-32-15-16	61	54	68	26	48	55
460-241982-16	053_LB-33-5-7	66	65	77	54	63	59
460-241982-17	054_LB-33-15-16	63	64	75	53	62	57
460-241982-18	055_LB-34-5-7	70	64	80	49	70	63
460-241982-19	056_LB-34-15-16	70	70	80	47	68	62
460-241982-20	057_LB-46-15-16	66	70	79	62	71	64
460-241982-21	058_LB-45-11-13	61	62	77	62	59	56
460-241982-22	059_LB-45-15-16	58	61	75	62	58	56
460-241982-23	060_LB-44-8-10	59	61	74	61	57	55
460-241982-24	061_LB-44-15-16	66	61	74	50	65	59
460-241982-25	062_LB-43-9-11	54	59	78	65	54	55
460-241982-26	063_LB-43-15-16	53	65	65	54	58	58
460-241982-27	064_LB-42-5-7	57	62	62	60	55	59
460-241982-28	065_LB-42-15-16	59	63	77	63	58	58
LCS 460-799464/2-A	Lab Control Sample	80	84	81	71	85	71
LCS 460-799466/2-A	Lab Control Sample	84	85	91	79	86	75
LCSD 460-799464/3-A	Lab Control Sample Dup	77	83	79	74	82	70
LCSD 460-799466/3-A	Lab Control Sample Dup	84	83	91	78	84	74
MB 460-799464/1-A	Method Blank	78	83	82	67	83	71
MB 460-799466/1-A	Method Blank	84	75	91	73	80	73

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPHL = Terphenyl-d14 (Surr)
 TBP = 2,4,6-Tribromophenol (Surr)
 2FP = 2-Fluorophenol (Surr)
 FBP = 2-Fluorobiphenyl

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (46-137)	PHL (10-50)	TPHL (39-150)	TBP (33-150)	2FP (18-72)	FBP (42-127)
460-241982-30	067_FB-2	113	42	122	81	64	95
460-241982-31	068_FB-3	104	38	118	73	59	85
460-241982-32	069_FB-4	104	38	125	70	59	87
460-242026-E-2-D MS	Matrix Spike	102	35	88	89	54	88
460-242026-E-2-E MSD	Matrix Spike Duplicate	103	36	82	85	53	88
LCS 460-799454/2-A	Lab Control Sample	105	41	103	84	61	92
LCSD 460-799454/3-A	Lab Control Sample Dup	117	45	111	93	67	101
MB 460-799454/1-A	Method Blank	103	40	112	75	60	83

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-241982-1	038_LB-49-8-10	96	108	86	106
460-241982-2	039_LB-49-15-16	82	88	79	79
460-241982-3	040_LB-48-5-7	78	80	77	76
460-241982-4	041_LB-48-15-16	87	85	84	82
460-241982-5	042_LB-47-15-16	87	84	80	85
460-241982-5 MS	042_LB-47-15-16	63	71	61	62
460-241982-5 MSD	042_LB-47-15-16	71	74	70	75
460-241982-6	043_HS-2-8-10	84	86	84	86
460-241982-7	044_HS-2-10-12	80	79	78	78
460-241982-8	045_LB-27-6-8	79	77	76	76
460-241982-9	046_LB-27-15-16	89	76	73	75
460-241982-9 MS	046_LB-27-15-16	106	97	93	95
460-241982-9 MSD	046_LB-27-15-16	85	69	69	69
460-241982-10	047_HS-1-8-10	76	77	77	76
460-241982-11	048_HS-1-10-12	79	79	76	76
460-241982-12	049_LB-31-5-7	77	79	78	79
460-241982-13	050_LB-31-15-16	83	85	82	84
460-241982-14	051_LB-32-5-7	82	84	81	83
460-241982-15	052_LB-32-15-16	89	90	86	87
460-241982-16	053_LB-33-5-7	75	76	73	74
460-241982-17	054_LB-33-15-16	94	96	91	95
460-241982-18	055_LB-34-5-7	81	85	81	84
460-241982-19	056_LB-34-15-16	82	84	81	82
460-241982-20	057_LB-46-15-16	83	82	79	80
460-241982-21	058_LB-45-11-13	82	82	79	79
460-241982-22	059_LB-45-15-16	105	79	76	75
460-241982-23	060_LB-44-8-10	94	79	76	76
460-241982-24	061_LB-44-15-16	99	78	75	78

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-241982-25	062_LB-43-9-11	82	83	78	82
460-241982-26	063_LB-43-15-16	95	96	92	95
460-241982-27	064_LB-42-5-7	112	94	94	95
460-241982-28	065_LB-42-15-16	84	81	78	78
LCS 460-799533/2-A	Lab Control Sample	98	99	92	89
LCS 460-799534/2-A	Lab Control Sample	103	89	86	84
LCSD 460-799533/3-A	Lab Control Sample Dup	88	93	85	83
LCSD 460-799534/3-A	Lab Control Sample Dup	99	87	85	82
MB 460-799533/1-A	Method Blank	100	98	93	97
MB 460-799534/1-A	Method Blank	114	95	91	95

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TCX1 (10-150)	TCX2 (10-150)	DCBP1 (10-150)	DCBP2 (10-150)
460-241934-H-4-B MS	Matrix Spike	76	74	82	82
460-241934-I-4-B MSD	Matrix Spike Duplicate	88	83	96	94
460-241982-30	067_FB-2	79	84	86	86
460-241982-31	068_FB-3	70	71	75	77
460-241982-32	069_FB-4	74	79	79	82
LCS 460-799434/2-A	Lab Control Sample	78	80	83	82
LCSD 460-799434/3-A	Lab Control Sample Dup	87	88	91	90
MB 460-799434/1-A	Method Blank	72	75	76	76

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-241982-1	038_LB-49-8-10	90	89	80	82
460-241982-2	039_LB-49-15-16	91	89	81	85
460-241982-3	040_LB-48-5-7	93	92	83	88
460-241982-4	041_LB-48-15-16	91	91	82	87
460-241982-5	042_LB-47-15-16	79	77	70	74
460-241982-5 MS	042_LB-47-15-16	81	79	71	74
460-241982-5 MSD	042_LB-47-15-16	75	73	66	69
460-241982-6	043_HS-2-8-10	101	102	90	96
460-241982-7	044_HS-2-10-12	94	93	83	88
460-241982-8	045_LB-27-6-8	95	93	84	88
460-241982-9	046_LB-27-15-16	81	73	85	87
460-241982-9 MS	046_LB-27-15-16	69	62	72	73

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-241982-9 MSD	046_LB-27-15-16	69	62	72	72
460-241982-10	047_HS-1-8-10	92	91	82	86
460-241982-11	048_HS-1-10-12	89	87	79	80
460-241982-12	049_LB-31-5-7	91	90	80	85
460-241982-13	050_LB-31-15-16	93	93	84	88
460-241982-14	051_LB-32-5-7	84	84	74	79
460-241982-15	052_LB-32-15-16	81	81	72	75
460-241982-16	053_LB-33-5-7	85	85	75	79
460-241982-17	054_LB-33-15-16	100	98	89	92
460-241982-18	055_LB-34-5-7	92	92	82	86
460-241982-19	056_LB-34-15-16	90	91	80	85
460-241982-20	057_LB-46-15-16	97	96	86	90
460-241982-21	058_LB-45-11-13	90	88	80	83
460-241982-22	059_LB-45-15-16	69	61	71	72
460-241982-23	060_LB-44-8-10	76	67	79	80
460-241982-24	061_LB-44-15-16	81	72	83	85
460-241982-25	062_LB-43-9-11	82	73	84	86
460-241982-26	063_LB-43-15-16	90	82	93	95
460-241982-27	064_LB-42-5-7	99	76	98	87
460-241982-28	065_LB-42-15-16	82	73	83	85
LCS 460-799522/2-A	Lab Control Sample	92	89	81	85
LCS 460-799523/2-A	Lab Control Sample	80	69	84	82
LCSD 460-799522/3-A	Lab Control Sample Dup	85	84	77	80
LCSD 460-799523/3-A	Lab Control Sample Dup	88	76	92	89
MB 460-799522/1-A	Method Blank	103	104	90	97
MB 460-799523/1-A	Method Blank	100	90	103	105

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-138)	DCBP2 (10-138)	TCX1 (10-150)	TCX2 (10-150)
460-241934-I-4-A MS	Matrix Spike	85	78	69	48
460-241934-J-4-A MSD	Matrix Spike Duplicate	95	88	80	55
460-241982-30	067_FB-2	74	60	68	41
460-241982-31	068_FB-3	64	51	59	34
460-241982-32	069_FB-4	56	46	49	30
LCS 460-799432/2-A	Lab Control Sample	94	92	96	93
LCSD 460-799432/3-A	Lab Control Sample Dup	100	97	102	97
MB 460-799432/1-A	Method Blank	90	87	84	59

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-241982-1	038_LB-49-8-10	125	123
460-241982-2	039_LB-49-15-16	117	111
460-241982-3	040_LB-48-5-7	120	115
460-241982-4	041_LB-48-15-16	121	116
460-241982-5	042_LB-47-15-16	117	119
460-241982-5 MS	042_LB-47-15-16	114	116
460-241982-5 MSD	042_LB-47-15-16	117	118
460-241982-6	043_HS-2-8-10	106	107
460-241982-7	044_HS-2-10-12	119	117
460-241982-8	045_LB-27-6-8	110	110
460-241982-9	046_LB-27-15-16	122	107
460-241982-9 MS	046_LB-27-15-16	123	117
460-241982-9 MSD	046_LB-27-15-16	127	118
460-241982-10	047_HS-1-8-10	120	120
460-241982-11	048_HS-1-10-12	117	115
460-241982-12	049_LB-31-5-7	117	114
460-241982-13	050_LB-31-15-16	117	113
460-241982-14	051_LB-32-5-7	109	118
460-241982-15	052_LB-32-15-16	116	114
460-241982-16	053_LB-33-5-7	147	110
460-241982-17	054_LB-33-15-16	115	105
460-241982-18	055_LB-34-5-7	165 *	109
460-241982-19	056_LB-34-15-16	119	107
460-241982-20	057_LB-46-15-16	116	99
460-241982-21	058_LB-45-11-13	111	99
460-241982-22	059_LB-45-15-16	117	97
460-241982-23	060_LB-44-8-10	108	104
460-241982-24	061_LB-44-15-16	181 *	105
460-241982-25	062_LB-43-9-11	206 *	106
460-241982-26	063_LB-43-15-16	124	111
460-241982-27	064_LB-42-5-7	277 *	94
460-241982-28	065_LB-42-15-16	113	105
LCS 460-799564/2-A	Lab Control Sample	111	114
LCS 460-799565/2-A	Lab Control Sample	99	114
LCSD 460-799564/3-A	Lab Control Sample Dup	112	116
LCSD 460-799565/3-A	Lab Control Sample Dup	106	119
MB 460-799564/1-A	Method Blank	101	110
MB 460-799565/1-A	Method Blank	90	97

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (28-150)	DCPAA2 (28-150)
460-241982-30	067_FB-2	73	80
460-241982-31	068_FB-3	69	79
460-241982-32	069_FB-4	76	84

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8151A - Herbicides (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (28-150)	DCPAA2 (28-150)
LCS 460-799563/2-A	Lab Control Sample	94	96
LCSD 460-799563/3-A	Lab Control Sample Dup	91	93
MB 460-799563/1-A	Method Blank	97	103

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DXE (10-150)
460-241844-J-1-B MSD	Matrix Spike Duplicate	40
460-241844-P-1-B MS	Matrix Spike	45
460-241982-30	067_FB-2	60
460-241982-31	068_FB-3	68
460-241982-32	069_FB-4	64
LCS 460-799242/2-A	Lab Control Sample	56
LCSD 460-799242/3-A	Lab Control Sample Dup	55
MB 460-799242/1-A	Method Blank	54
Surrogate Legend		
DXE = 1,4-Dioxane-d8		

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-241982-1	038_LB-49-8-10	84	88	92	95	97	90	86	86
460-241982-2	039_LB-49-15-16	97	106	90	95	96	98	95	93
460-241982-3	040_LB-48-5-7	84	96	87	94	97	91	96	91
460-241982-4	041_LB-48-15-16	94	93	96	100	105	100	98	95
460-241982-5	042_LB-47-15-16	92	96	87	96	94	91	93	96
460-241982-5 MS	042_LB-47-15-16	92	96	88	88	93	93	88	95
460-241982-5 MSD	042_LB-47-15-16	91	96	85	97	92	91	89	92
460-241982-6	043_HS-2-8-10	108	111	108	109	110	106	107	108
460-241982-7	044_HS-2-10-12	106	110	100	108	105	99	101	106
460-241982-8	045_LB-27-6-8	108	105	95	94	99	97	97	100
460-241982-9	046_LB-27-15-16	103	113	99	104	115	106	108	101
460-241982-9 MS	046_LB-27-15-16	93	103	95	95	100	89	90	85
460-241982-9 MSD	046_LB-27-15-16	97	104	92	94	96	95	95	99
460-241982-10	047_HS-1-8-10	97	102	91	98	106	90	101	100
460-241982-11	048_HS-1-10-12	91	98	95	100	96	90	96	96
460-241982-12	049_LB-31-5-7	108	102	99	99	103	100	97	100
460-241982-13	050_LB-31-15-16	104	104	106	101	103	99	99	101
460-241982-14	051_LB-32-5-7	114	117	97	102	109	99	102	103
460-241982-15	052_LB-32-15-16	105	109	95	97	100	97	100	96
460-241982-16	053_LB-33-5-7	91	95	91	89	94	93	92	92
460-241982-17	054_LB-33-15-16	83	97	88	87	95	92	92	96
460-241982-18	055_LB-34-5-7	92	99	93	96	100	92	97	95
460-241982-18 - DL	055_LB-34-5-7		87						
460-241982-19	056_LB-34-15-16	95	105	105	106	103	100	99	103
460-241982-20	057_LB-46-15-16	82	91	80	82	89	90	86	86
460-241982-21	058_LB-45-11-13	95	105	94	94	100	97	97	92
460-241982-22	059_LB-45-15-16	97	95	87	87	94	89	94	87
460-241982-24	061_LB-44-15-16	103	107	96	98	102	99	98	95
460-241982-26	063_LB-43-15-16	97	102	94	88	100	91	91	90
460-241982-28	065_LB-42-15-16	99	111	86	92	99	95	92	96
LCS 410-167784/2-B	Lab Control Sample	99	108	101	102	101	94	95	90
LCS 410-167873/2-B	Lab Control Sample	103	107	100	98	111	107	108	115

Eurofins Edison

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
MB 410-167784/1-B	Method Blank	109	111	100	103	110	105	105	98
MB 410-167873/1-B	Method Blank	112	110	94	95	108	107	107	110
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-241982-1	038_LB-49-8-10	84	88	108	99	92	27	38	89
460-241982-2	039_LB-49-15-16	95	93	105	95	98	71	78	87
460-241982-3	040_LB-48-5-7	85	87	104	95	97	37	49	82
460-241982-4	041_LB-48-15-16	97	96	108	100	98	68	80	90
460-241982-5	042_LB-47-15-16	89	86	105	93	90	77	82	86
460-241982-5 MS	042_LB-47-15-16	89	91	107	92	94	59	67	88
460-241982-5 MSD	042_LB-47-15-16	90	90	100	100	92	79	85	88
460-241982-6	043_HS-2-8-10	104	99	110	111	106	66	71	99
460-241982-7	044_HS-2-10-12	107	104	115	106	102	86	97	101
460-241982-8	045_LB-27-6-8	102	100	112	97	102	40	50	101
460-241982-9	046_LB-27-15-16	107	99	116	107	104	49	55	102
460-241982-9 MS	046_LB-27-15-16	87	86	108	97	89	71	77	86
460-241982-9 MSD	046_LB-27-15-16	99	97	110	94	93	70	77	94
460-241982-10	047_HS-1-8-10	96	97	110	97	95	80	86	102
460-241982-11	048_HS-1-10-12	91	92	104	95	95	88	91	85
460-241982-12	049_LB-31-5-7	99	97	113	106	102	40	48	93
460-241982-13	050_LB-31-15-16	96	94	113	105	102	77	88	97
460-241982-14	051_LB-32-5-7	106	103	113	104	101	84	90	98
460-241982-15	052_LB-32-15-16	91	95	111	95	99	89	92	98
460-241982-16	053_LB-33-5-7	84	89	107	95	96	37	45	94
460-241982-17	054_LB-33-15-16	91	92	102	89	95	62	73	91
460-241982-18	055_LB-34-5-7	92	91	99	90	94	83	89	90
460-241982-18 - DL	055_LB-34-5-7								
460-241982-19	056_LB-34-15-16	97	96	114	103	99	81	88	98
460-241982-20	057_LB-46-15-16	88	85	101	84	92	36	40	86
460-241982-21	058_LB-45-11-13	89	91	106	93	97	77	84	80
460-241982-22	059_LB-45-15-16	89	89	110	89	90	80	76	86
460-241982-24	061_LB-44-15-16	93	93	113	104	97	72	73	94
460-241982-26	063_LB-43-15-16	88	93	106	91	95	61	72	74
460-241982-28	065_LB-42-15-16	96	102	104	93	98	93	101	88
LCS 410-167784/2-B	Lab Control Sample	87	93	110	103	99	85	93	87
LCS 410-167873/2-B	Lab Control Sample	110	105	121	99	109	100	106	97
MB 410-167784/1-B	Method Blank	100	97	117	104	105	82	86	90
MB 410-167873/1-B	Method Blank	105	102	126	95	112	98	98	86
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)						
460-241982-1	038_LB-49-8-10	86	91						
460-241982-2	039_LB-49-15-16	92	103						
460-241982-3	040_LB-48-5-7	89	97						
460-241982-4	041_LB-48-15-16	96	103						
460-241982-5	042_LB-47-15-16	87	90						
460-241982-5 MS	042_LB-47-15-16	88	95						
460-241982-5 MSD	042_LB-47-15-16	85	86						

Eurofins Edison

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)	
		PFBA (12-137)	PFPeA (12-135)
460-241982-6	043_HS-2-8-10	103	107
460-241982-7	044_HS-2-10-12	98	103
460-241982-8	045_LB-27-6-8	94	101
460-241982-9	046_LB-27-15-16	100	98
460-241982-9 MS	046_LB-27-15-16	88	96
460-241982-9 MSD	046_LB-27-15-16	89	97
460-241982-10	047_HS-1-8-10	93	104
460-241982-11	048_HS-1-10-12	91	89
460-241982-12	049_LB-31-5-7	95	103
460-241982-13	050_LB-31-15-16	94	98
460-241982-14	051_LB-32-5-7	97	108
460-241982-15	052_LB-32-15-16	93	100
460-241982-16	053_LB-33-5-7	89	91
460-241982-17	054_LB-33-15-16	88	90
460-241982-18	055_LB-34-5-7	90	91
460-241982-18 - DL	055_LB-34-5-7		
460-241982-19	056_LB-34-15-16	96	100
460-241982-20	057_LB-46-15-16	85	85
460-241982-21	058_LB-45-11-13	90	90
460-241982-22	059_LB-45-15-16	87	89
460-241982-24	061_LB-44-15-16	91	102
460-241982-26	063_LB-43-15-16	86	90
460-241982-28	065_LB-42-15-16	86	95
LCS 410-167784/2-B	Lab Control Sample	95	99
LCS 410-167873/2-B	Lab Control Sample	104	114
MB 410-167784/1-B	Method Blank	100	107
MB 410-167873/1-B	Method Blank	100	107

Surrogate Legend

M282FTS = M2-8:2 FTS
 M262FTS = M2-6:2 FTS
 13C5PHA = 13C5 PFHxA
 C4PFHA = 13C4 PFHpA
 C8PFOA = 13C8 PFOA
 C9PFNA = 13C9 PFNA
 C6PFDA = 13C6 PFDA
 13C7PUA = 13C7 PFUnA
 PFDoDA = 13C2-PFDoDA
 PFTDA = 13C2 PFTeDA
 C3PFBS = 13C3 PFBS
 C3PFHS = 13C3 PFHxS
 C8PFOS = 13C8 PFOS
 d3NMFOS = d3-NMeFOSAA
 d5NEFOS = d5-NEtFOSAA
 PFOSA = 13C8 FOSA
 PFBA = 13C4 PFBA
 PFPeA = 13C5 PFPeA

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (34-182)	M262FTS (29-189)	13C5PHA (31-142)	C4PFHA (30-144)	C8PFOA (49-127)	C9PFNA (47-136)	C6PFDA (47-128)	13C7PUA (40-135)
460-241982-30	067_FB-2	155	141	123	124	136 *	137 *	141 *	148 *
460-241982-31	068_FB-3	136	185	134	131	143 *	141 *	145 *	142 *
460-241982-32	069_FB-4	150	167	114	117	139 *	142 *	142 *	140 *
LCS 410-167742/2-A	Lab Control Sample	128	121	107	109	116	126	129 *	131
LCSD 410-167742/3-A	Lab Control Sample Dup	141	142	126	127	142 *	137 *	132 *	139 *
MB 410-167742/1-A	Method Blank	133	128	116	113	122	128	127	131

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (28-136)	PFTDA (10-144)	C3PFBS (19-178)	C3PFHS (32-145)	C8PFOS (49-126)	d3NMFOS (32-151)	d5NEFOS (37-164)	PFOSA (10-143)
460-241982-30	067_FB-2	135	130	164	136	136 *	149	148	95
460-241982-31	068_FB-3	151 *	135	159	137	140 *	158 *	153	107
460-241982-32	069_FB-4	136	135	162	127	144 *	151	163	107
LCS 410-167742/2-A	Lab Control Sample	126	122	151	120	134 *	137	132	94
LCSD 410-167742/3-A	Lab Control Sample Dup	136	124	161	133	138 *	156 *	145	106
MB 410-167742/1-A	Method Blank	123	125	150	121	133 *	140	133	97

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (41-132)	PFPeA (33-155)
460-241982-30	067_FB-2	123	133
460-241982-31	068_FB-3	133 *	143
460-241982-32	069_FB-4	132	142
LCS 410-167742/2-A	Lab Control Sample	111	113
LCSD 410-167742/3-A	Lab Control Sample Dup	124	134
MB 410-167742/1-A	Method Blank	116	121

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-799504/8

Matrix: Solid

Analysis Batch: 799504

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			09/02/21 20:53	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			09/02/21 20:53	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			09/02/21 20:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			09/02/21 20:53	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			09/02/21 20:53	1
Acetone	6.0	U	6.0	5.7	ug/Kg			09/02/21 20:53	1
Benzene	1.0	U	1.0	0.26	ug/Kg			09/02/21 20:53	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			09/02/21 20:53	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			09/02/21 20:53	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			09/02/21 20:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			09/02/21 20:53	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			09/02/21 20:53	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			09/02/21 20:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			09/02/21 20:53	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			09/02/21 20:53	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			09/02/21 20:53	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			09/02/21 20:53	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			09/02/21 20:53	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			09/02/21 20:53	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			09/02/21 20:53	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			09/02/21 20:53	1
Toluene	1.0	U	1.0	0.23	ug/Kg			09/02/21 20:53	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			09/02/21 20:53	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/02/21 20:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			09/02/21 20:53	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			09/02/21 20:53	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			09/02/21 20:53	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/02/21 20:53	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			09/02/21 20:53	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			09/02/21 20:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 145		09/02/21 20:53	1
4-Bromofluorobenzene	114		70 - 139		09/02/21 20:53	1
Toluene-d8 (Surr)	112		80 - 120		09/02/21 20:53	1
Dibromofluoromethane (Surr)	114		48 - 150		09/02/21 20:53	1

Lab Sample ID: LCS 460-799504/4

Matrix: Solid

Analysis Batch: 799504

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	21.0		ug/Kg		105	77 - 132
1,1-Dichloroethane	20.0	22.4		ug/Kg		112	76 - 129
1,2-Dichloroethane	20.0	20.8		ug/Kg		104	70 - 132
1,1,1-Trichloroethane	20.0	21.6		ug/Kg		108	78 - 132
2-Butanone (MEK)	100	101		ug/Kg		101	75 - 120
Acetone	100	101		ug/Kg		101	63 - 131

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799504/4

Matrix: Solid

Analysis Batch: 799504

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.0	22.7		ug/Kg		114	80 - 123
Carbon tetrachloride	20.0	20.4		ug/Kg		102	72 - 136
Chloroform	20.0	20.5		ug/Kg		102	79 - 126
Chlorobenzene	20.0	22.3		ug/Kg		111	80 - 120
cis-1,2-Dichloroethene	20.0	21.2		ug/Kg		106	80 - 123
Ethylbenzene	20.0	23.1		ug/Kg		115	80 - 120
Methylene Chloride	20.0	22.3		ug/Kg		112	76 - 127
m-Xylene & p-Xylene	20.0	23.3		ug/Kg		117	80 - 120
Methyl tert-butyl ether	20.0	23.0		ug/Kg		115	80 - 125
1,3-Dichlorobenzene	20.0	23.0		ug/Kg		115	80 - 120
1,4-Dichlorobenzene	20.0	22.2		ug/Kg		111	80 - 120
o-Xylene	20.0	23.2		ug/Kg		116	80 - 120
1,2-Dichlorobenzene	20.0	22.8		ug/Kg		114	80 - 120
1,4-Dioxane	400	540		ug/Kg		135	73 - 136
1,2,4-Trimethylbenzene	20.0	23.0		ug/Kg		115	79 - 120
Tetrachloroethene	20.0	21.2		ug/Kg		106	78 - 123
1,3,5-Trimethylbenzene	20.0	22.8		ug/Kg		114	79 - 120
Toluene	20.0	22.1		ug/Kg		111	80 - 120
N-Propylbenzene	20.0	24.7 *		ug/Kg		123	78 - 120
sec-Butylbenzene	20.0	23.8		ug/Kg		119	78 - 120
trans-1,2-Dichloroethene	20.0	21.1		ug/Kg		105	78 - 128
tert-Butylbenzene	20.0	22.1		ug/Kg		111	76 - 120
Trichloroethene	20.0	21.3		ug/Kg		107	79 - 120
n-Butylbenzene	20.0	23.6		ug/Kg		118	77 - 123
Vinyl chloride	20.0	22.5		ug/Kg		113	56 - 147
Xylenes, Total	40.0	46.5		ug/Kg		116	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		77 - 145
4-Bromofluorobenzene	115		70 - 139
Toluene-d8 (Surr)	118		80 - 120
Dibromofluoromethane (Surr)	110		48 - 150

Lab Sample ID: LCSD 460-799504/5

Matrix: Solid

Analysis Batch: 799504

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	20.6		ug/Kg		103	77 - 132	2	30
1,1-Dichloroethane	20.0	21.8		ug/Kg		109	76 - 129	3	30
1,2-Dichloroethane	20.0	20.4		ug/Kg		102	70 - 132	2	30
1,1,1-Trichloroethane	20.0	21.1		ug/Kg		105	78 - 132	3	30
2-Butanone (MEK)	100	97.6		ug/Kg		98	75 - 120	3	30
Acetone	100	98.8		ug/Kg		99	63 - 131	3	30
Benzene	20.0	22.4		ug/Kg		112	80 - 123	1	30
Carbon tetrachloride	20.0	20.2		ug/Kg		101	72 - 136	1	30
Chloroform	20.0	20.4		ug/Kg		102	79 - 126	0	30
Chlorobenzene	20.0	21.9		ug/Kg		110	80 - 120	2	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-799504/5

Matrix: Solid

Analysis Batch: 799504

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	21.4		ug/Kg		107	80 - 123	1	30
Ethylbenzene	20.0	21.8		ug/Kg		109	80 - 120	6	30
Methylene Chloride	20.0	22.0		ug/Kg		110	76 - 127	1	30
m-Xylene & p-Xylene	20.0	22.9		ug/Kg		114	80 - 120	2	30
Methyl tert-butyl ether	20.0	22.6		ug/Kg		113	80 - 125	2	30
1,3-Dichlorobenzene	20.0	22.6		ug/Kg		113	80 - 120	2	30
1,4-Dichlorobenzene	20.0	22.2		ug/Kg		111	80 - 120	0	30
o-Xylene	20.0	22.5		ug/Kg		113	80 - 120	3	30
1,2-Dichlorobenzene	20.0	22.2		ug/Kg		111	80 - 120	3	30
1,4-Dioxane	400	490		ug/Kg		122	73 - 136	10	30
1,2,4-Trimethylbenzene	20.0	22.5		ug/Kg		112	79 - 120	2	30
Tetrachloroethene	20.0	20.3		ug/Kg		101	78 - 123	4	30
1,3,5-Trimethylbenzene	20.0	22.3		ug/Kg		111	79 - 120	2	30
Toluene	20.0	21.4		ug/Kg		107	80 - 120	3	30
N-Propylbenzene	20.0	24.1 *		ug/Kg		121	78 - 120	2	30
sec-Butylbenzene	20.0	23.5		ug/Kg		118	78 - 120	1	30
trans-1,2-Dichloroethene	20.0	20.4		ug/Kg		102	78 - 128	3	30
tert-Butylbenzene	20.0	22.0		ug/Kg		110	76 - 120	1	30
Trichloroethene	20.0	20.8		ug/Kg		104	79 - 120	2	30
n-Butylbenzene	20.0	23.2		ug/Kg		116	77 - 123	1	30
Vinyl chloride	20.0	21.9		ug/Kg		109	56 - 147	3	30
Xylenes, Total	40.0	45.4		ug/Kg		113	80 - 120	2	30

Surrogate	%Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	109		77 - 145
4-Bromofluorobenzene	111		70 - 139
Toluene-d8 (Surr)	113		80 - 120
Dibromofluoromethane (Surr)	107		48 - 150

Lab Sample ID: MB 460-799587/7

Matrix: Solid

Analysis Batch: 799587

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			09/03/21 08:16	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			09/03/21 08:16	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			09/03/21 08:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			09/03/21 08:16	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			09/03/21 08:16	1
Acetone	6.0	U	6.0	5.7	ug/Kg			09/03/21 08:16	1
Benzene	1.0	U	1.0	0.26	ug/Kg			09/03/21 08:16	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			09/03/21 08:16	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			09/03/21 08:16	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			09/03/21 08:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			09/03/21 08:16	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			09/03/21 08:16	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			09/03/21 08:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			09/03/21 08:16	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-799587/7

Matrix: Solid

Analysis Batch: 799587

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			09/03/21 08:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			09/03/21 08:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			09/03/21 08:16	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			09/03/21 08:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			09/03/21 08:16	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			09/03/21 08:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			09/03/21 08:16	1
Toluene	1.0	U	1.0	0.23	ug/Kg			09/03/21 08:16	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			09/03/21 08:16	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/03/21 08:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			09/03/21 08:16	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			09/03/21 08:16	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			09/03/21 08:16	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/03/21 08:16	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			09/03/21 08:16	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			09/03/21 08:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 145		09/03/21 08:16	1
4-Bromofluorobenzene	112		70 - 139		09/03/21 08:16	1
Toluene-d8 (Surr)	109		80 - 120		09/03/21 08:16	1
Dibromofluoromethane (Surr)	110		48 - 150		09/03/21 08:16	1

Lab Sample ID: LCS 460-799587/3

Matrix: Solid

Analysis Batch: 799587

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	21.1		ug/Kg		106	77 - 132
1,1-Dichloroethane	20.0	22.3		ug/Kg		111	76 - 129
1,2-Dichloroethane	20.0	20.0		ug/Kg		100	70 - 132
1,1,1-Trichloroethane	20.0	21.1		ug/Kg		105	78 - 132
2-Butanone (MEK)	100	99.0		ug/Kg		99	75 - 120
Acetone	100	99.0		ug/Kg		99	63 - 131
Benzene	20.0	22.3		ug/Kg		112	80 - 123
Carbon tetrachloride	20.0	20.2		ug/Kg		101	72 - 136
Chloroform	20.0	20.2		ug/Kg		101	79 - 126
Chlorobenzene	20.0	21.7		ug/Kg		108	80 - 120
cis-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	80 - 123
Ethylbenzene	20.0	22.2		ug/Kg		111	80 - 120
Methylene Chloride	20.0	21.6		ug/Kg		108	76 - 127
m-Xylene & p-Xylene	20.0	22.6		ug/Kg		113	80 - 120
Methyl tert-butyl ether	20.0	22.3		ug/Kg		112	80 - 125
1,3-Dichlorobenzene	20.0	22.0		ug/Kg		110	80 - 120
1,4-Dichlorobenzene	20.0	21.8		ug/Kg		109	80 - 120
o-Xylene	20.0	22.3		ug/Kg		112	80 - 120
1,2-Dichlorobenzene	20.0	21.9		ug/Kg		109	80 - 120
1,4-Dioxane	400	519		ug/Kg		130	73 - 136

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799587/3

Matrix: Solid

Analysis Batch: 799587

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trimethylbenzene	20.0	21.9		ug/Kg		110	79 - 120
Tetrachloroethene	20.0	20.0		ug/Kg		100	78 - 123
1,3,5-Trimethylbenzene	20.0	21.9		ug/Kg		110	79 - 120
Toluene	20.0	21.3		ug/Kg		107	80 - 120
N-Propylbenzene	20.0	23.7		ug/Kg		119	78 - 120
sec-Butylbenzene	20.0	23.1		ug/Kg		116	78 - 120
trans-1,2-Dichloroethene	20.0	20.6		ug/Kg		103	78 - 128
tert-Butylbenzene	20.0	21.4		ug/Kg		107	76 - 120
Trichloroethene	20.0	20.2		ug/Kg		101	79 - 120
n-Butylbenzene	20.0	23.8		ug/Kg		119	77 - 123
Vinyl chloride	20.0	22.6		ug/Kg		113	56 - 147
Xylenes, Total	40.0	44.9		ug/Kg		112	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		77 - 145
4-Bromofluorobenzene	112		70 - 139
Toluene-d8 (Surr)	114		80 - 120
Dibromofluoromethane (Surr)	107		48 - 150

Lab Sample ID: LCSD 460-799587/4

Matrix: Solid

Analysis Batch: 799587

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	22.0		ug/Kg		110	77 - 132	4	30
1,1-Dichloroethane	20.0	21.9		ug/Kg		110	76 - 129	1	30
1,2-Dichloroethane	20.0	19.6		ug/Kg		98	70 - 132	2	30
1,1,1-Trichloroethane	20.0	20.3		ug/Kg		102	78 - 132	4	30
2-Butanone (MEK)	100	93.5		ug/Kg		94	75 - 120	6	30
Acetone	100	99.5		ug/Kg		100	63 - 131	1	30
Benzene	20.0	22.3		ug/Kg		112	80 - 123	0	30
Carbon tetrachloride	20.0	20.0		ug/Kg		100	72 - 136	1	30
Chloroform	20.0	20.1		ug/Kg		101	79 - 126	0	30
Chlorobenzene	20.0	21.4		ug/Kg		107	80 - 120	1	30
cis-1,2-Dichloroethene	20.0	20.6		ug/Kg		103	80 - 123	1	30
Ethylbenzene	20.0	22.1		ug/Kg		110	80 - 120	1	30
Methylene Chloride	20.0	21.7		ug/Kg		108	76 - 127	0	30
m-Xylene & p-Xylene	20.0	22.1		ug/Kg		111	80 - 120	2	30
Methyl tert-butyl ether	20.0	22.1		ug/Kg		111	80 - 125	1	30
1,3-Dichlorobenzene	20.0	22.2		ug/Kg		111	80 - 120	1	30
1,4-Dichlorobenzene	20.0	21.7		ug/Kg		108	80 - 120	1	30
o-Xylene	20.0	22.2		ug/Kg		111	80 - 120	1	30
1,2-Dichlorobenzene	20.0	22.0		ug/Kg		110	80 - 120	0	30
1,4-Dioxane	400	503		ug/Kg		126	73 - 136	3	30
1,2,4-Trimethylbenzene	20.0	22.2		ug/Kg		111	79 - 120	1	30
Tetrachloroethene	20.0	20.8		ug/Kg		104	78 - 123	4	30
1,3,5-Trimethylbenzene	20.0	22.0		ug/Kg		110	79 - 120	0	30
Toluene	20.0	21.1		ug/Kg		106	80 - 120	1	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-799587/4

Matrix: Solid

Analysis Batch: 799587

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-Propylbenzene	20.0	23.9		ug/Kg		119	78 - 120	1	30
sec-Butylbenzene	20.0	23.1		ug/Kg		116	78 - 120	0	30
trans-1,2-Dichloroethene	20.0	20.7		ug/Kg		103	78 - 128	0	30
tert-Butylbenzene	20.0	21.4		ug/Kg		107	76 - 120	0	30
Trichloroethene	20.0	20.2		ug/Kg		101	79 - 120	0	30
n-Butylbenzene	20.0	23.4		ug/Kg		117	77 - 123	2	30
Vinyl chloride	20.0	22.0		ug/Kg		110	56 - 147	3	30
Xylenes, Total	40.0	44.3		ug/Kg		111	80 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		77 - 145
4-Bromofluorobenzene	111		70 - 139
Toluene-d8 (Surr)	113		80 - 120
Dibromofluoromethane (Surr)	107		48 - 150

Lab Sample ID: MB 460-799733/8

Matrix: Water

Analysis Batch: 799733

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/03/21 20:56	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/03/21 20:56	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/03/21 20:56	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/03/21 20:56	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/03/21 20:56	1
Acetone	5.0	U	5.0	4.4	ug/L			09/03/21 20:56	1
Benzene	1.0	U	1.0	0.20	ug/L			09/03/21 20:56	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/03/21 20:56	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/03/21 20:56	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/03/21 20:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/03/21 20:56	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/03/21 20:56	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/03/21 20:56	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/03/21 20:56	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/03/21 20:56	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/03/21 20:56	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/03/21 20:56	1
1,4-Dioxane	50	U	50	28	ug/L			09/03/21 20:56	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/03/21 20:56	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/03/21 20:56	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/03/21 20:56	1
Toluene	1.0	U	1.0	0.38	ug/L			09/03/21 20:56	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/03/21 20:56	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/03/21 20:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/03/21 20:56	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/03/21 20:56	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/03/21 20:56	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/03/21 20:56	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-799733/8

Matrix: Water

Analysis Batch: 799733

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/03/21 20:56	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/03/21 20:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		75 - 123		09/03/21 20:56	1
4-Bromofluorobenzene	91		76 - 120		09/03/21 20:56	1
Toluene-d8 (Surr)	112		80 - 120		09/03/21 20:56	1
Dibromofluoromethane (Surr)	100		77 - 124		09/03/21 20:56	1

Lab Sample ID: LCS 460-799733/4

Matrix: Water

Analysis Batch: 799733

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	20.9		ug/L		105	68 - 133
1,1-Dichloroethane	20.0	24.3		ug/L		122	73 - 130
1,2-Dichloroethane	20.0	21.6		ug/L		108	75 - 121
1,1,1-Trichloroethane	20.0	19.4		ug/L		97	68 - 128
2-Butanone (MEK)	100	77.8		ug/L		78	69 - 128
Acetone	100	110		ug/L		110	61 - 134
Benzene	20.0	23.7		ug/L		118	78 - 126
Carbon tetrachloride	20.0	18.3		ug/L		91	56 - 131
Chloroform	20.0	21.7		ug/L		109	78 - 125
Chlorobenzene	20.0	20.7		ug/L		104	80 - 119
cis-1,2-Dichloroethene	20.0	20.1		ug/L		101	78 - 121
Ethylbenzene	20.0	20.3		ug/L		102	78 - 120
Methylene Chloride	20.0	21.3		ug/L		107	74 - 127
m-Xylene & p-Xylene	20.0	20.6		ug/L		103	78 - 123
Methyl tert-butyl ether	20.0	22.0		ug/L		110	65 - 131
1,3-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 121
1,4-Dichlorobenzene	20.0	20.2		ug/L		101	80 - 118
o-Xylene	20.0	19.8		ug/L		99	78 - 122
1,2-Dichlorobenzene	20.0	20.6		ug/L		103	79 - 122
1,4-Dioxane	400	492		ug/L		123	70 - 142
1,2,4-Trimethylbenzene	20.0	21.9		ug/L		110	75 - 125
Tetrachloroethene	20.0	18.8		ug/L		94	70 - 127
1,3,5-Trimethylbenzene	20.0	21.7		ug/L		109	75 - 125
Toluene	20.0	22.1		ug/L		110	78 - 119
N-Propylbenzene	20.0	24.1		ug/L		120	74 - 129
sec-Butylbenzene	20.0	21.8		ug/L		109	73 - 129
trans-1,2-Dichloroethene	20.0	20.2		ug/L		101	74 - 126
tert-Butylbenzene	20.0	20.3		ug/L		101	72 - 124
Trichloroethene	20.0	19.1		ug/L		95	71 - 121
n-Butylbenzene	20.0	24.7		ug/L		124	69 - 135
Vinyl chloride	20.0	21.6		ug/L		108	61 - 144
Xylenes, Total	40.0	40.4		ug/L		101	78 - 122

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799733/4

Matrix: Water

Analysis Batch: 799733

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		75 - 123
4-Bromofluorobenzene	93		76 - 120
Toluene-d8 (Surr)	111		80 - 120
Dibromofluoromethane (Surr)	98		77 - 124

Lab Sample ID: MB 460-799782/8

Matrix: Water

Analysis Batch: 799782

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/04/21 08:39	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/04/21 08:39	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/04/21 08:39	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/04/21 08:39	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/04/21 08:39	1
Acetone	5.0	U	5.0	4.4	ug/L			09/04/21 08:39	1
Benzene	1.0	U	1.0	0.20	ug/L			09/04/21 08:39	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/04/21 08:39	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/04/21 08:39	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/04/21 08:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/04/21 08:39	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/04/21 08:39	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/04/21 08:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/04/21 08:39	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/04/21 08:39	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/04/21 08:39	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/04/21 08:39	1
1,4-Dioxane	50	U	50	28	ug/L			09/04/21 08:39	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 08:39	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/04/21 08:39	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/04/21 08:39	1
Toluene	1.0	U	1.0	0.38	ug/L			09/04/21 08:39	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 08:39	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 08:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/04/21 08:39	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/04/21 08:39	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/04/21 08:39	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 08:39	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/04/21 08:39	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/04/21 08:39	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	111		75 - 123				09/04/21 08:39	1	
4-Bromofluorobenzene	93		76 - 120				09/04/21 08:39	1	
Toluene-d8 (Surr)	112		80 - 120				09/04/21 08:39	1	
Dibromofluoromethane (Surr)	99		77 - 124				09/04/21 08:39	1	

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799782/5

Matrix: Water

Analysis Batch: 799782

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	19.9		ug/L		100	68 - 133
1,1-Dichloroethane	20.0	23.1		ug/L		116	73 - 130
1,2-Dichloroethane	20.0	20.4		ug/L		102	75 - 121
1,1,1-Trichloroethane	20.0	18.9		ug/L		94	68 - 128
2-Butanone (MEK)	100	74.6		ug/L		75	69 - 128
Acetone	100	97.6		ug/L		98	61 - 134
Benzene	20.0	22.6		ug/L		113	78 - 126
Carbon tetrachloride	20.0	17.4		ug/L		87	56 - 131
Chloroform	20.0	20.7		ug/L		104	78 - 125
Chlorobenzene	20.0	19.7		ug/L		99	80 - 119
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	78 - 121
Ethylbenzene	20.0	19.4		ug/L		97	78 - 120
Methylene Chloride	20.0	20.3		ug/L		102	74 - 127
m-Xylene & p-Xylene	20.0	19.8		ug/L		99	78 - 123
Methyl tert-butyl ether	20.0	20.8		ug/L		104	65 - 131
1,3-Dichlorobenzene	20.0	19.3		ug/L		97	80 - 121
1,4-Dichlorobenzene	20.0	19.1		ug/L		96	80 - 118
o-Xylene	20.0	18.7		ug/L		94	78 - 122
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	79 - 122
1,4-Dioxane	400	548		ug/L		137	70 - 142
1,2,4-Trimethylbenzene	20.0	20.5		ug/L		102	75 - 125
Tetrachloroethene	20.0	17.8		ug/L		89	70 - 127
1,3,5-Trimethylbenzene	20.0	20.5		ug/L		103	75 - 125
Toluene	20.0	21.1		ug/L		106	78 - 119
N-Propylbenzene	20.0	22.5		ug/L		112	74 - 129
sec-Butylbenzene	20.0	20.2		ug/L		101	73 - 129
trans-1,2-Dichloroethene	20.0	18.9		ug/L		95	74 - 126
tert-Butylbenzene	20.0	18.9		ug/L		94	72 - 124
Trichloroethene	20.0	18.1		ug/L		90	71 - 121
n-Butylbenzene	20.0	23.1		ug/L		116	69 - 135
Vinyl chloride	20.0	21.9		ug/L		110	61 - 144
Xylenes, Total	40.0	38.5		ug/L		96	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		75 - 123
4-Bromofluorobenzene	93		76 - 120
Toluene-d8 (Surr)	110		80 - 120
Dibromofluoromethane (Surr)	97		77 - 124

Lab Sample ID: 460-241937-B-8 MS

Matrix: Water

Analysis Batch: 799782

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	1.0	U	200	205		ug/L		103	68 - 133
1,1-Dichloroethane	1.0	U	200	246		ug/L		123	73 - 130
1,2-Dichloroethane	1.0	U	200	214		ug/L		107	75 - 121
1,1,1-Trichloroethane	1.0	U	200	199		ug/L		99	68 - 128

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-241937-B-8 MS

Matrix: Water

Analysis Batch: 799782

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	5.0	U	1000	798		ug/L		80	69 - 128
Acetone	5.0	U	1000	962		ug/L		96	61 - 134
Benzene	0.53	J	200	239		ug/L		119	78 - 126
Carbon tetrachloride	1.0	U	200	179		ug/L		90	56 - 131
Chloroform	1.8		200	220		ug/L		109	78 - 125
Chlorobenzene	1.0	U	200	210		ug/L		105	80 - 119
cis-1,2-Dichloroethene	1.0	U	200	202		ug/L		101	78 - 121
Ethylbenzene	1.0	U	200	205		ug/L		102	78 - 120
Methylene Chloride	1.0	U	200	216		ug/L		108	74 - 127
m-Xylene & p-Xylene	1.0	U	200	201		ug/L		101	78 - 123
Methyl tert-butyl ether	1.0	U	200	215		ug/L		107	65 - 131
1,3-Dichlorobenzene	1.0	U	200	196		ug/L		98	80 - 121
1,4-Dichlorobenzene	1.0	U	200	197		ug/L		98	80 - 118
o-Xylene	1.0	U	200	190		ug/L		95	78 - 122
1,2-Dichlorobenzene	1.0	U	200	203		ug/L		101	79 - 122
1,4-Dioxane	50	U	4000	4290		ug/L		107	70 - 142
1,2,4-Trimethylbenzene	1.0	U	200	207		ug/L		103	75 - 125
Tetrachloroethene	0.25	J	200	190		ug/L		95	70 - 127
1,3,5-Trimethylbenzene	1.0	U	200	206		ug/L		103	75 - 125
Toluene	1.0	U	200	220		ug/L		110	78 - 119
N-Propylbenzene	1.0	U	200	226		ug/L		113	74 - 129
sec-Butylbenzene	1.0	U	200	204		ug/L		102	73 - 129
trans-1,2-Dichloroethene	1.0	U	200	202		ug/L		101	74 - 126
tert-Butylbenzene	1.0	U	200	190		ug/L		95	72 - 124
Trichloroethene	1.0	U	200	188		ug/L		94	71 - 121
n-Butylbenzene	1.0	U	200	230		ug/L		115	69 - 135
Vinyl chloride	1.0	U	200	226		ug/L		113	61 - 144
Xylenes, Total	2.0	U	400	391		ug/L		98	78 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		75 - 123
4-Bromofluorobenzene	94		76 - 120
Toluene-d8 (Surr)	111		80 - 120
Dibromofluoromethane (Surr)	97		77 - 124

Lab Sample ID: 460-241937-B-8 MSD

Matrix: Water

Analysis Batch: 799782

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	1.0	U	200	205		ug/L		102	68 - 133	0	30
1,1-Dichloroethane	1.0	U	200	246		ug/L		123	73 - 130	0	30
1,2-Dichloroethane	1.0	U	200	221		ug/L		111	75 - 121	3	30
1,1,1-Trichloroethane	1.0	U	200	197		ug/L		98	68 - 128	1	30
2-Butanone (MEK)	5.0	U	1000	780		ug/L		78	69 - 128	2	30
Acetone	5.0	U	1000	990		ug/L		99	61 - 134	3	30
Benzene	0.53	J	200	243		ug/L		121	78 - 126	2	30
Carbon tetrachloride	1.0	U	200	179		ug/L		90	56 - 131	0	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-241937-B-8 MSD

Matrix: Water

Analysis Batch: 799782

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloroform	1.8		200	222		ug/L		110	78 - 125	1	30
Chlorobenzene	1.0	U	200	210		ug/L		105	80 - 119	0	30
cis-1,2-Dichloroethene	1.0	U	200	204		ug/L		102	78 - 121	1	30
Ethylbenzene	1.0	U	200	204		ug/L		102	78 - 120	0	30
Methylene Chloride	1.0	U	200	217		ug/L		109	74 - 127	0	30
m-Xylene & p-Xylene	1.0	U	200	204		ug/L		102	78 - 123	1	30
Methyl tert-butyl ether	1.0	U	200	215		ug/L		107	65 - 131	0	30
1,3-Dichlorobenzene	1.0	U	200	201		ug/L		100	80 - 121	2	30
1,4-Dichlorobenzene	1.0	U	200	200		ug/L		100	80 - 118	1	30
o-Xylene	1.0	U	200	191		ug/L		95	78 - 122	0	30
1,2-Dichlorobenzene	1.0	U	200	205		ug/L		103	79 - 122	1	30
1,4-Dioxane	50	U	4000	5620		ug/L		141	70 - 142	27	30
1,2,4-Trimethylbenzene	1.0	U	200	211		ug/L		105	75 - 125	2	30
Tetrachloroethene	0.25	J	200	189		ug/L		94	70 - 127	0	30
1,3,5-Trimethylbenzene	1.0	U	200	213		ug/L		106	75 - 125	3	30
Toluene	1.0	U	200	224		ug/L		112	78 - 119	1	30
N-Propylbenzene	1.0	U	200	231		ug/L		116	74 - 129	2	30
sec-Butylbenzene	1.0	U	200	208		ug/L		104	73 - 129	2	30
trans-1,2-Dichloroethene	1.0	U	200	203		ug/L		101	74 - 126	0	30
tert-Butylbenzene	1.0	U	200	197		ug/L		98	72 - 124	4	30
Trichloroethene	1.0	U	200	191		ug/L		96	71 - 121	2	30
n-Butylbenzene	1.0	U	200	234		ug/L		117	69 - 135	2	30
Vinyl chloride	1.0	U	200	228		ug/L		114	61 - 144	1	30
Xylenes, Total	2.0	U	400	395		ug/L		99	78 - 122	1	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	114		75 - 123
4-Bromofluorobenzene	93		76 - 120
Toluene-d8 (Surr)	111		80 - 120
Dibromofluoromethane (Surr)	99		77 - 124

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-799454/1-A

Matrix: Water

Analysis Batch: 799369

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799454

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.010	U	0.010	0.00029	mg/L		09/02/21 10:25	09/02/21 20:11	1
2-Methylphenol	0.010	U	0.010	0.00067	mg/L		09/02/21 10:25	09/02/21 20:11	1
3 & 4 Methylphenol	0.010	U	0.010	0.00064	mg/L		09/02/21 10:25	09/02/21 20:11	1
Pentachlorophenol	0.020	U	0.020	0.0014	mg/L		09/02/21 10:25	09/02/21 20:11	1
Naphthalene	0.0020	U	0.0020	0.00054	mg/L		09/02/21 10:25	09/02/21 20:11	1
Acenaphthylene	0.010	U	0.010	0.00082	mg/L		09/02/21 10:25	09/02/21 20:11	1
Acenaphthene	0.010	U	0.010	0.0011	mg/L		09/02/21 10:25	09/02/21 20:11	1
Dibenzofuran	0.010	U	0.010	0.0011	mg/L		09/02/21 10:25	09/02/21 20:11	1
Fluorene	0.010	U	0.010	0.00091	mg/L		09/02/21 10:25	09/02/21 20:11	1
Hexachlorobenzene	0.0010	U	0.0010	0.00040	mg/L		09/02/21 10:25	09/02/21 20:11	1
Phenanthrene	0.010	U	0.010	0.0013	mg/L		09/02/21 10:25	09/02/21 20:11	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-799454/1-A

Matrix: Water

Analysis Batch: 799369

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799454

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.010	U	0.010	0.0013	mg/L		09/02/21 10:25	09/02/21 20:11	1
Fluoranthene	0.010	U	0.010	0.00084	mg/L		09/02/21 10:25	09/02/21 20:11	1
Pyrene	0.010	U	0.010	0.0016	mg/L		09/02/21 10:25	09/02/21 20:11	1
Benzo[a]anthracene	0.0010	U	0.0010	0.00059	mg/L		09/02/21 10:25	09/02/21 20:11	1
Chrysene	0.0020	U	0.0020	0.00091	mg/L		09/02/21 10:25	09/02/21 20:11	1
Benzo[b]fluoranthene	0.0020	U	0.0020	0.00068	mg/L		09/02/21 10:25	09/02/21 20:11	1
Benzo[k]fluoranthene	0.0010	U	0.0010	0.00067	mg/L		09/02/21 10:25	09/02/21 20:11	1
Benzo[a]pyrene	0.0010	U	0.0010	0.00041	mg/L		09/02/21 10:25	09/02/21 20:11	1
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0020	0.00094	mg/L		09/02/21 10:25	09/02/21 20:11	1
Dibenz(a,h)anthracene	0.0010	U	0.0010	0.00072	mg/L		09/02/21 10:25	09/02/21 20:11	1
Benzo[g,h,i]perylene	0.010	U	0.010	0.00070	mg/L		09/02/21 10:25	09/02/21 20:11	1
1,4-Dioxane	10	U	10	1.6	ug/L		09/02/21 10:25	09/02/21 20:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	103		46 - 137	09/02/21 10:25	09/02/21 20:11	1
Phenol-d5 (Surr)	40		10 - 50	09/02/21 10:25	09/02/21 20:11	1
Terphenyl-d14 (Surr)	112		39 - 150	09/02/21 10:25	09/02/21 20:11	1
2,4,6-Tribromophenol (Surr)	75		33 - 150	09/02/21 10:25	09/02/21 20:11	1
2-Fluorophenol (Surr)	60		18 - 72	09/02/21 10:25	09/02/21 20:11	1
2-Fluorobiphenyl	83		42 - 127	09/02/21 10:25	09/02/21 20:11	1

Lab Sample ID: LCS 460-799454/2-A

Matrix: Water

Analysis Batch: 799369

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799454

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	0.100	0.0333		mg/L		33	20 - 50
2-Methylphenol	0.100	0.0712		mg/L		71	48 - 88
3 & 4 Methylphenol	0.100	0.0659		mg/L		66	43 - 78
Pentachlorophenol	0.200	0.137		mg/L		68	54 - 131
Naphthalene	0.100	0.0835		mg/L		84	58 - 105
Acenaphthylene	0.100	0.0847		mg/L		85	64 - 109
Acenaphthene	0.100	0.0801		mg/L		80	60 - 110
Dibenzofuran	0.100	0.0786		mg/L		79	66 - 109
Fluorene	0.100	0.0801		mg/L		80	65 - 111
Hexachlorobenzene	0.100	0.0842		mg/L		84	61 - 117
Phenanthrene	0.100	0.0844		mg/L		84	65 - 108
Anthracene	0.100	0.0842		mg/L		84	65 - 109
Fluoranthene	0.100	0.0760		mg/L		76	65 - 113
Pyrene	0.100	0.0895		mg/L		89	54 - 114
Benzo[a]anthracene	0.100	0.0810		mg/L		81	62 - 106
Chrysene	0.100	0.0795		mg/L		80	63 - 108
Benzo[b]fluoranthene	0.100	0.0880		mg/L		88	66 - 125
Benzo[k]fluoranthene	0.100	0.0870		mg/L		87	64 - 125
Benzo[a]pyrene	0.100	0.0984		mg/L		98	66 - 127
Indeno[1,2,3-cd]pyrene	0.100	0.107		mg/L		107	54 - 150
Dibenz(a,h)anthracene	0.100	0.112		mg/L		112	55 - 150
Benzo[g,h,i]perylene	0.100	0.108		mg/L		108	49 - 149

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-799454/2-A

Matrix: Water

Analysis Batch: 799369

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799454

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	100	48.2		ug/L		48	26 - 69

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	105		46 - 137
Phenol-d5 (Surr)	41		10 - 50
Terphenyl-d14 (Surr)	103		39 - 150
2,4,6-Tribromophenol (Surr)	84		33 - 150
2-Fluorophenol (Surr)	61		18 - 72
2-Fluorobiphenyl	92		42 - 127

Lab Sample ID: LCSD 460-799454/3-A

Matrix: Water

Analysis Batch: 799369

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799454

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Phenol	0.100	0.0353		mg/L		35	20 - 50	6	30
2-Methylphenol	0.100	0.0741		mg/L		74	48 - 88	4	30
3 & 4 Methylphenol	0.100	0.0691		mg/L		69	43 - 78	5	30
Pentachlorophenol	0.200	0.124		mg/L		62	54 - 131	10	30
Naphthalene	0.100	0.0894		mg/L		89	58 - 105	7	30
Acenaphthylene	0.100	0.0888		mg/L		89	64 - 109	5	30
Acenaphthene	0.100	0.0839		mg/L		84	60 - 110	5	30
Dibenzofuran	0.100	0.0831		mg/L		83	66 - 109	6	30
Fluorene	0.100	0.0830		mg/L		83	65 - 111	4	30
Hexachlorobenzene	0.100	0.0885		mg/L		88	61 - 117	5	30
Phenanthrene	0.100	0.0872		mg/L		87	65 - 108	3	30
Anthracene	0.100	0.0889		mg/L		89	65 - 109	5	30
Fluoranthene	0.100	0.0795		mg/L		80	65 - 113	4	30
Pyrene	0.100	0.0947		mg/L		95	54 - 114	6	30
Benzo[a]anthracene	0.100	0.0859		mg/L		86	62 - 106	6	30
Chrysene	0.100	0.0819		mg/L		82	63 - 108	3	30
Benzo[b]fluoranthene	0.100	0.0923		mg/L		92	66 - 125	5	30
Benzo[k]fluoranthene	0.100	0.0899		mg/L		90	64 - 125	3	30
Benzo[a]pyrene	0.100	0.103		mg/L		103	66 - 127	5	30
Indeno[1,2,3-cd]pyrene	0.100	0.106		mg/L		106	54 - 150	1	30
Dibenz(a,h)anthracene	0.100	0.110		mg/L		110	55 - 150	2	30
Benzo[g,h,i]perylene	0.100	0.107		mg/L		107	49 - 149	1	30
1,4-Dioxane	100	51.5		ug/L		52	26 - 69	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	117		46 - 137
Phenol-d5 (Surr)	45		10 - 50
Terphenyl-d14 (Surr)	111		39 - 150
2,4,6-Tribromophenol (Surr)	93		33 - 150
2-Fluorophenol (Surr)	67		18 - 72
2-Fluorobiphenyl	101		42 - 127

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-242026-E-2-D MS

Matrix: Water

Analysis Batch: 799369

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799454

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol			0.0800	0.0287		mg/L			
2-Methylphenol			0.0800	0.0662		mg/L			
3 & 4 Methylphenol			0.0800	0.0610		mg/L			
Pentachlorophenol			0.160	0.135		mg/L			
Naphthalene	0.0020	U	0.0800	0.0811		mg/L		101	58 - 105
Acenaphthylene	0.010	U	0.0800	0.0823		mg/L		103	64 - 109
Acenaphthene	0.010	U	0.0800	0.0782		mg/L		98	60 - 110
Dibenzofuran	0.010	U	0.0800	0.0781		mg/L		98	66 - 109
Fluorene	0.010	U	0.0800	0.0792		mg/L		99	65 - 111
Hexachlorobenzene	0.0010	U	0.0800	0.0782		mg/L		98	61 - 117
Phenanthrene	0.010	U	0.0800	0.0824		mg/L		103	65 - 108
Anthracene	0.010	U	0.0800	0.0822		mg/L		103	65 - 109
Fluoranthene	0.010	U	0.0800	0.0792		mg/L		99	65 - 113
Pyrene	0.010	U	0.0800	0.0941	*	mg/L		118	54 - 114
Benzo[a]anthracene	0.0010	U	0.0800	0.0808		mg/L		101	62 - 106
Chrysene	0.0020	U	0.0800	0.0787		mg/L		98	63 - 108
Benzo[b]fluoranthene	0.0020	U	0.0800	0.0898		mg/L		112	66 - 125
Benzo[k]fluoranthene	0.0010	U	0.0800	0.0939		mg/L		117	64 - 125
Benzo[a]pyrene	0.0010	U	0.0800	0.0981		mg/L		123	66 - 127
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0800	0.0866		mg/L		108	54 - 150
Dibenz(a,h)anthracene	0.0010	U	0.0800	0.0904		mg/L		113	55 - 150
Benzo[g,h,i]perylene	0.010	U	0.0800	0.0867		mg/L		108	49 - 149
1,4-Dioxane			80.0	41.8		ug/L			

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	102		46 - 137
Phenol-d5 (Surr)	35		10 - 50
Terphenyl-d14 (Surr)	88		39 - 150
2,4,6-Tribromophenol (Surr)	89		33 - 150
2-Fluorophenol (Surr)	54		18 - 72
2-Fluorobiphenyl	88		42 - 127

Lab Sample ID: 460-242026-E-2-E MSD

Matrix: Water

Analysis Batch: 799369

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799454

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenol			0.0800	0.0304		mg/L					
2-Methylphenol			0.0800	0.0705		mg/L					
3 & 4 Methylphenol			0.0800	0.0653		mg/L					
Pentachlorophenol			0.160	0.137		mg/L					
Naphthalene	0.0020	U	0.0800	0.0860	*	mg/L		108	58 - 105	6	30
Acenaphthylene	0.010	U	0.0800	0.0853		mg/L		107	64 - 109	4	30
Acenaphthene	0.010	U	0.0800	0.0811		mg/L		101	60 - 110	4	30
Dibenzofuran	0.010	U	0.0800	0.0806		mg/L		101	66 - 109	3	30
Fluorene	0.010	U	0.0800	0.0826		mg/L		103	65 - 111	4	30
Hexachlorobenzene	0.0010	U	0.0800	0.0822		mg/L		103	61 - 117	5	30
Phenanthrene	0.010	U	0.0800	0.0843		mg/L		105	65 - 108	2	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-242026-E-2-E MSD

Matrix: Water

Analysis Batch: 799369

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799454

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	0.010	U	0.0800	0.0847		mg/L		106	65 - 109	3	30
Fluoranthene	0.010	U	0.0800	0.0778		mg/L		97	65 - 113	2	30
Pyrene	0.010	U	0.0800	0.0961	*	mg/L		120	54 - 114	2	30
Benzo[a]anthracene	0.0010	U	0.0800	0.0833		mg/L		104	62 - 106	3	30
Chrysene	0.0020	U	0.0800	0.0805		mg/L		101	63 - 108	2	30
Benzo[b]fluoranthene	0.0020	U	0.0800	0.0910		mg/L		114	66 - 125	1	30
Benzo[k]fluoranthene	0.0010	U	0.0800	0.0908		mg/L		113	64 - 125	3	30
Benzo[a]pyrene	0.0010	U	0.0800	0.0994		mg/L		124	66 - 127	1	30
Indeno[1,2,3-cd]pyrene	0.0020	U	0.0800	0.0944		mg/L		118	54 - 150	9	30
Dibenz(a,h)anthracene	0.0010	U	0.0800	0.0986		mg/L		123	55 - 150	9	30
Benzo[g,h,i]perylene	0.010	U	0.0800	0.0944		mg/L		118	49 - 149	8	30
1,4-Dioxane			80.0	43.7		ug/L					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	103		46 - 137
Phenol-d5 (Surr)	36		10 - 50
Terphenyl-d14 (Surr)	82		39 - 150
2,4,6-Tribromophenol (Surr)	85		33 - 150
2-Fluorophenol (Surr)	53		18 - 72
2-Fluorobiphenyl	88		42 - 127

Lab Sample ID: MB 460-799464/1-A

Matrix: Solid

Analysis Batch: 799531

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
2-Methylphenol	330	U	330	12	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Pentachlorophenol	270	U	270	68	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Naphthalene	330	U	330	5.7	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Acenaphthylene	330	U	330	3.3	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Acenaphthene	330	U	330	9.4	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Dibenzofuran	330	U	330	4.6	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Fluorene	330	U	330	4.5	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Hexachlorobenzene	33	U	33	16	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Phenanthrene	330	U	330	5.8	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Anthracene	330	U	330	10	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Fluoranthene	330	U	330	12	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Pyrene	330	U	330	8.2	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Chrysene	330	U	330	5.6	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		09/02/21 11:09	09/02/21 19:29	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-799464/1-A

Matrix: Solid

Analysis Batch: 799531

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	33	U	33	29	ug/Kg		09/02/21 11:09	09/02/21 19:29	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	78		11 - 104				09/02/21 11:09	09/02/21 19:29	1
Phenol-d5 (Surr)	83		15 - 100				09/02/21 11:09	09/02/21 19:29	1
Terphenyl-d14 (Surr)	82		12 - 126				09/02/21 11:09	09/02/21 19:29	1
2,4,6-Tribromophenol (Surr)	67		10 - 123				09/02/21 11:09	09/02/21 19:29	1
2-Fluorophenol (Surr)	83		10 - 105				09/02/21 11:09	09/02/21 19:29	1
2-Fluorobiphenyl	71		14 - 103				09/02/21 11:09	09/02/21 19:29	1

Lab Sample ID: LCS 460-799464/2-A

Matrix: Solid

Analysis Batch: 799531

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	3330	2810		ug/Kg		84	63 - 110
2-Methylphenol	3330	2720		ug/Kg		82	63 - 108
3 & 4 Methylphenol	3330	2680		ug/Kg		80	61 - 108
Pentachlorophenol	6670	3930		ug/Kg		59	44 - 126
Naphthalene	3330	2580		ug/Kg		77	63 - 106
Acenaphthylene	3330	2510		ug/Kg		75	64 - 108
Acenaphthene	3330	2120		ug/Kg		63	53 - 110
Dibenzofuran	3330	2370		ug/Kg		71	65 - 108
Fluorene	3330	2400		ug/Kg		72	65 - 109
Hexachlorobenzene	3330	2420		ug/Kg		73	61 - 113
Phenanthrene	3330	2460		ug/Kg		74	66 - 112
Anthracene	3330	2440		ug/Kg		73	67 - 114
Fluoranthene	3330	2400		ug/Kg		72	61 - 106
Pyrene	3330	2420		ug/Kg		73	61 - 111
Benzo[a]anthracene	3330	2410		ug/Kg		72	67 - 115
Chrysene	3330	2310	*	ug/Kg		69	71 - 122
Benzo[b]fluoranthene	3330	2820		ug/Kg		85	70 - 125
Benzo[k]fluoranthene	3330	2650		ug/Kg		79	67 - 115
Benzo[a]pyrene	3330	3010		ug/Kg		90	73 - 123
Indeno[1,2,3-cd]pyrene	3330	2640		ug/Kg		79	62 - 121
Dibenz(a,h)anthracene	3330	2710		ug/Kg		81	66 - 119
Benzo[g,h,i]perylene	3330	2560		ug/Kg		77	61 - 113
1,4-Dioxane	3330	1350		ug/Kg		41	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	80		11 - 104
Phenol-d5 (Surr)	84		15 - 100
Terphenyl-d14 (Surr)	81		12 - 126
2,4,6-Tribromophenol (Surr)	71		10 - 123
2-Fluorophenol (Surr)	85		10 - 105
2-Fluorobiphenyl	71		14 - 103

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-799464/3-A

Matrix: Solid

Analysis Batch: 799531

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799464

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenol	3330	2760		ug/Kg		83	63 - 110	1	30
2-Methylphenol	3330	2680		ug/Kg		80	63 - 108	2	30
3 & 4 Methylphenol	3330	2690		ug/Kg		81	61 - 108	0	30
Pentachlorophenol	6670	3930		ug/Kg		59	44 - 126	0	30
Naphthalene	3330	2550		ug/Kg		77	63 - 106	1	30
Acenaphthylene	3330	2480		ug/Kg		75	64 - 108	1	30
Acenaphthene	3330	2010		ug/Kg		60	53 - 110	5	30
Dibenzofuran	3330	2350		ug/Kg		70	65 - 108	1	30
Fluorene	3330	2410		ug/Kg		72	65 - 109	0	30
Hexachlorobenzene	3330	2340		ug/Kg		70	61 - 113	3	30
Phenanthrene	3330	2430		ug/Kg		73	66 - 112	1	30
Anthracene	3330	2400		ug/Kg		72	67 - 114	2	30
Fluoranthene	3330	2420		ug/Kg		73	61 - 106	1	30
Pyrene	3330	2340		ug/Kg		70	61 - 111	4	30
Benzo[a]anthracene	3330	2390		ug/Kg		72	67 - 115	1	30
Chrysene	3330	2320	*	ug/Kg		70	71 - 122	1	30
Benzo[b]fluoranthene	3330	2750		ug/Kg		82	70 - 125	3	30
Benzo[k]fluoranthene	3330	2630		ug/Kg		79	67 - 115	1	30
Benzo[a]pyrene	3330	2960		ug/Kg		89	73 - 123	2	30
Indeno[1,2,3-cd]pyrene	3330	2730		ug/Kg		82	62 - 121	4	30
Dibenz(a,h)anthracene	3330	2640		ug/Kg		79	66 - 119	2	30
Benzo[g,h,i]perylene	3330	2490		ug/Kg		75	61 - 113	3	30
1,4-Dioxane	3330	1420		ug/Kg		43	31 - 81	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	77		11 - 104
Phenol-d5 (Surr)	83		15 - 100
Terphenyl-d14 (Surr)	79		12 - 126
2,4,6-Tribromophenol (Surr)	74		10 - 123
2-Fluorophenol (Surr)	82		10 - 105
2-Fluorobiphenyl	70		14 - 103

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 799531

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799464

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	390	U	3920	2740		ug/Kg	✱	70	63 - 110
2-Methylphenol	390	U	3920	2690		ug/Kg	✱	69	63 - 108
3 & 4 Methylphenol	390	U	3920	2720		ug/Kg	✱	69	61 - 108
Pentachlorophenol	310	U	7850	3630		ug/Kg	✱	46	44 - 126
Naphthalene	390	U	3920	2420	*	ug/Kg	✱	62	63 - 106
Acenaphthylene	390	U	3920	2520		ug/Kg	✱	64	64 - 108
Acenaphthene	390	U	3920	2080		ug/Kg	✱	53	53 - 110
Dibenzofuran	390	U	3920	2400	*	ug/Kg	✱	61	65 - 108
Fluorene	390	U	3920	2450	*	ug/Kg	✱	63	65 - 109
Hexachlorobenzene	39	U	3920	2510		ug/Kg	✱	64	61 - 113
Phenanthrene	390	U	3920	2580		ug/Kg	✱	66	66 - 112

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 799531

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799464

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Anthracene	390	U	3920	2560	*	ug/Kg	⊛	65	67 - 114
Fluoranthene	22	J	3920	2540		ug/Kg	⊛	64	61 - 106
Pyrene	27	J	3920	2680		ug/Kg	⊛	68	61 - 111
Benzo[a]anthracene	24	J	3920	2510	*	ug/Kg	⊛	63	67 - 115
Chrysene	18	J *	3920	2530	*	ug/Kg	⊛	64	71 - 122
Benzo[b]fluoranthene	27	J	3920	2740	*	ug/Kg	⊛	69	70 - 125
Benzo[k]fluoranthene	13	J	3920	2910		ug/Kg	⊛	74	67 - 115
Benzo[a]pyrene	27	J	3920	3110		ug/Kg	⊛	79	73 - 123
Indeno[1,2,3-cd]pyrene	19	J	3920	2710		ug/Kg	⊛	69	62 - 121
Dibenz(a,h)anthracene	39	U	3920	2830		ug/Kg	⊛	72	66 - 119
Benzo[g,h,i]perylene	18	J	3920	2590		ug/Kg	⊛	66	61 - 113
1,4-Dioxane	39	U	3920	1300		ug/Kg	⊛	33	31 - 81

Surrogate	MS %Recovery	MS Qualifier	MS Limits
Nitrobenzene-d5 (Surr)	64		11 - 104
Phenol-d5 (Surr)	71		15 - 100
Terphenyl-d14 (Surr)	76		12 - 126
2,4,6-Tribromophenol (Surr)	63		10 - 123
2-Fluorophenol (Surr)	69		10 - 105
2-Fluorobiphenyl	59		14 - 103

Lab Sample ID: 460-241982-5 MSD

Matrix: Solid

Analysis Batch: 799531

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799464

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenol	390	U	3920	2710		ug/Kg	⊛	69	63 - 110	1	30
2-Methylphenol	390	U	3920	2630		ug/Kg	⊛	67	63 - 108	2	30
3 & 4 Methylphenol	390	U	3920	2580		ug/Kg	⊛	66	61 - 108	5	30
Pentachlorophenol	310	U	7850	3420		ug/Kg	⊛	44	44 - 126	6	30
Naphthalene	390	U	3920	2430	*	ug/Kg	⊛	62	63 - 106	0	30
Acenaphthylene	390	U	3920	2480	*	ug/Kg	⊛	63	64 - 108	2	30
Acenaphthene	390	U	3920	2030	*	ug/Kg	⊛	52	53 - 110	2	30
Dibenzofuran	390	U	3920	2330	*	ug/Kg	⊛	59	65 - 108	3	30
Fluorene	390	U	3920	2360	*	ug/Kg	⊛	60	65 - 109	4	30
Hexachlorobenzene	39	U	3920	2410		ug/Kg	⊛	61	61 - 113	4	30
Phenanthrene	390	U	3920	2470	*	ug/Kg	⊛	63	66 - 112	4	30
Anthracene	390	U	3920	2460	*	ug/Kg	⊛	63	67 - 114	4	30
Fluoranthene	22	J	3920	2410		ug/Kg	⊛	61	61 - 106	5	30
Pyrene	27	J	3920	2490		ug/Kg	⊛	63	61 - 111	8	30
Benzo[a]anthracene	24	J	3920	2370	*	ug/Kg	⊛	60	67 - 115	6	30
Chrysene	18	J *	3920	2370	*	ug/Kg	⊛	60	71 - 122	6	30
Benzo[b]fluoranthene	27	J	3920	2750	*	ug/Kg	⊛	69	70 - 125	0	30
Benzo[k]fluoranthene	13	J	3920	2700		ug/Kg	⊛	69	67 - 115	7	30
Benzo[a]pyrene	27	J	3920	2970		ug/Kg	⊛	75	73 - 123	5	30
Indeno[1,2,3-cd]pyrene	19	J	3920	2630		ug/Kg	⊛	67	62 - 121	3	30
Dibenz(a,h)anthracene	39	U	3920	2700		ug/Kg	⊛	69	66 - 119	5	30
Benzo[g,h,i]perylene	18	J	3920	2470		ug/Kg	⊛	63	61 - 113	5	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-241982-5 MSD

Matrix: Solid

Analysis Batch: 799531

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799464

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	39	U	3920	1310		ug/Kg	✱	33	31 - 81	0	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5 (Surr)	62		11 - 104								
Phenol-d5 (Surr)	69		15 - 100								
Terphenyl-d14 (Surr)	69		12 - 126								
2,4,6-Tribromophenol (Surr)	58		10 - 123								
2-Fluorophenol (Surr)	67		10 - 105								
2-Fluorobiphenyl	57		14 - 103								

Lab Sample ID: MB 460-799466/1-A

Matrix: Solid

Analysis Batch: 799528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799466

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	330	U	330	12	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
2-Methylphenol	330	U	330	12	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Pentachlorophenol	270	U	270	68	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Naphthalene	330	U	330	5.7	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Acenaphthylene	330	U	330	3.3	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Acenaphthene	330	U	330	9.4	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Dibenzofuran	330	U	330	4.6	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Fluorene	330	U	330	4.5	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Hexachlorobenzene	33	U	33	16	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Phenanthrene	330	U	330	5.8	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Anthracene	330	U	330	10	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Fluoranthene	330	U	330	12	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Pyrene	330	U	330	8.2	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Chrysene	330	U	330	5.6	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
1,4-Dioxane	33	U	33	29	ug/Kg		09/02/21 11:14	09/02/21 19:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	84		11 - 104				09/02/21 11:14	09/02/21 19:34	1
Phenol-d5 (Surr)	75		15 - 100				09/02/21 11:14	09/02/21 19:34	1
Terphenyl-d14 (Surr)	91		12 - 126				09/02/21 11:14	09/02/21 19:34	1
2,4,6-Tribromophenol (Surr)	73		10 - 123				09/02/21 11:14	09/02/21 19:34	1
2-Fluorophenol (Surr)	80		10 - 105				09/02/21 11:14	09/02/21 19:34	1
2-Fluorobiphenyl	73		14 - 103				09/02/21 11:14	09/02/21 19:34	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-799466/2-A

Matrix: Solid

Analysis Batch: 799528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	3330	2800		ug/Kg		84	63 - 110
2-Methylphenol	3330	2840		ug/Kg		85	63 - 108
3 & 4 Methylphenol	3330	2680		ug/Kg		80	61 - 108
Pentachlorophenol	6670	3730		ug/Kg		56	44 - 126
Naphthalene	3330	2720		ug/Kg		81	63 - 106
Acenaphthylene	3330	2610		ug/Kg		78	64 - 108
Acenaphthene	3330	2110		ug/Kg		63	53 - 110
Dibenzofuran	3330	2480		ug/Kg		74	65 - 108
Fluorene	3330	2490		ug/Kg		75	65 - 109
Hexachlorobenzene	3330	2590		ug/Kg		78	61 - 113
Phenanthrene	3330	2530		ug/Kg		76	66 - 112
Anthracene	3330	2560		ug/Kg		77	67 - 114
Fluoranthene	3330	2400		ug/Kg		72	61 - 106
Pyrene	3330	2730		ug/Kg		82	61 - 111
Benzo[a]anthracene	3330	2580		ug/Kg		77	67 - 115
Chrysene	3330	2480		ug/Kg		74	71 - 122
Benzo[b]fluoranthene	3330	2940		ug/Kg		88	70 - 125
Benzo[k]fluoranthene	3330	2820		ug/Kg		85	67 - 115
Benzo[a]pyrene	3330	3130		ug/Kg		94	73 - 123
Indeno[1,2,3-cd]pyrene	3330	2510		ug/Kg		75	62 - 121
Dibenz(a,h)anthracene	3330	2660		ug/Kg		80	66 - 119
Benzo[g,h,i]perylene	3330	2470		ug/Kg		74	61 - 113
1,4-Dioxane	3330	1420		ug/Kg		43	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	84		11 - 104
Phenol-d5 (Surr)	85		15 - 100
Terphenyl-d14 (Surr)	91		12 - 126
2,4,6-Tribromophenol (Surr)	79		10 - 123
2-Fluorophenol (Surr)	86		10 - 105
2-Fluorobiphenyl	75		14 - 103

Lab Sample ID: LCSD 460-799466/3-A

Matrix: Solid

Analysis Batch: 799528

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799466

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenol	3330	2790		ug/Kg		84	63 - 110	0	30
2-Methylphenol	3330	2860		ug/Kg		86	63 - 108	1	30
3 & 4 Methylphenol	3330	2640		ug/Kg		79	61 - 108	2	30
Pentachlorophenol	6670	3820		ug/Kg		57	44 - 126	2	30
Naphthalene	3330	2730		ug/Kg		82	63 - 106	0	30
Acenaphthylene	3330	2580		ug/Kg		77	64 - 108	1	30
Acenaphthene	3330	2120		ug/Kg		64	53 - 110	1	30
Dibenzofuran	3330	2450		ug/Kg		73	65 - 108	1	30
Fluorene	3330	2490		ug/Kg		75	65 - 109	0	30
Hexachlorobenzene	3330	2640		ug/Kg		79	61 - 113	2	30
Phenanthrene	3330	2540		ug/Kg		76	66 - 112	0	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-799466/3-A

Matrix: Solid

Analysis Batch: 799528

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799466

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	3330	2580		ug/Kg		77	67 - 114	1	30
Fluoranthene	3330	2440		ug/Kg		73	61 - 106	2	30
Pyrene	3330	2790		ug/Kg		84	61 - 111	2	30
Benzo[a]anthracene	3330	2650		ug/Kg		79	67 - 115	3	30
Chrysene	3330	2530		ug/Kg		76	71 - 122	2	30
Benzo[b]fluoranthene	3330	3000		ug/Kg		90	70 - 125	2	30
Benzo[k]fluoranthene	3330	2870		ug/Kg		86	67 - 115	2	30
Benzo[a]pyrene	3330	3190		ug/Kg		96	73 - 123	2	30
Indeno[1,2,3-cd]pyrene	3330	2740		ug/Kg		82	62 - 121	9	30
Dibenz(a,h)anthracene	3330	2720		ug/Kg		82	66 - 119	2	30
Benzo[g,h,i]perylene	3330	2500		ug/Kg		75	61 - 113	1	30
1,4-Dioxane	3330	1440		ug/Kg		43	31 - 81	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Nitrobenzene-d5 (Surr)	84		11 - 104
Phenol-d5 (Surr)	83		15 - 100
Terphenyl-d14 (Surr)	91		12 - 126
2,4,6-Tribromophenol (Surr)	78		10 - 123
2-Fluorophenol (Surr)	84		10 - 105
2-Fluorobiphenyl	74		14 - 103

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 799528

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799466

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	380	U	3810	2270	*	ug/Kg	⊛	59	63 - 110
2-Methylphenol	380	U	3810	2400	*	ug/Kg	⊛	63	63 - 108
3 & 4 Methylphenol	380	U	3810	2170	*	ug/Kg	⊛	57	61 - 108
Pentachlorophenol	300	U	7620	2960	*	ug/Kg	⊛	39	44 - 126
Naphthalene	380	U	3810	2180	*	ug/Kg	⊛	57	63 - 106
Acenaphthylene	380	U	3810	2220	*	ug/Kg	⊛	58	64 - 108
Acenaphthene	380	U	3810	1800	*	ug/Kg	⊛	47	53 - 110
Dibenzofuran	380	U	3810	2150	*	ug/Kg	⊛	56	65 - 108
Fluorene	380	U	3810	2190	*	ug/Kg	⊛	57	65 - 109
Hexachlorobenzene	38	U	3810	2340	*	ug/Kg	⊛	61	61 - 113
Phenanthrene	380	U	3810	2320	*	ug/Kg	⊛	61	66 - 112
Anthracene	380	U	3810	2350	*	ug/Kg	⊛	62	67 - 114
Fluoranthene	380	U	3810	2200	*	ug/Kg	⊛	58	61 - 106
Pyrene	380	U	3810	2480	*	ug/Kg	⊛	65	61 - 111
Benzo[a]anthracene	38	U	3810	2290	*	ug/Kg	⊛	60	67 - 115
Chrysene	380	U	3810	2330	*	ug/Kg	⊛	61	71 - 122
Benzo[b]fluoranthene	38	U	3810	2550	*	ug/Kg	⊛	67	70 - 125
Benzo[k]fluoranthene	38	U	3810	2730	*	ug/Kg	⊛	72	67 - 115
Benzo[a]pyrene	38	U	3810	2830	*	ug/Kg	⊛	74	73 - 123
Indeno[1,2,3-cd]pyrene	38	U	3810	2300	*	ug/Kg	⊛	60	62 - 121
Dibenz(a,h)anthracene	38	U	3810	2410	*	ug/Kg	⊛	63	66 - 119
Benzo[g,h,i]perylene	380	U	3810	2240	*	ug/Kg	⊛	59	61 - 113

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 799528

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799466

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	38	U	3810	1130	*	ug/Kg	⊛	30	31 - 81
Surrogate	MS %Recovery	MS Qualifier	Limits						
Nitrobenzene-d5 (Surr)	59		11 - 104						
Phenol-d5 (Surr)	59		15 - 100						
Terphenyl-d14 (Surr)	72		12 - 126						
2,4,6-Tribromophenol (Surr)	62		10 - 123						
2-Fluorophenol (Surr)	56		10 - 105						
2-Fluorobiphenyl	54		14 - 103						

Lab Sample ID: 460-241982-9 MSD

Matrix: Solid

Analysis Batch: 799528

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799466

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Phenol	380	U	3810	2380	*	ug/Kg	⊛	62	63 - 110	5	30
2-Methylphenol	380	U	3810	2470		ug/Kg	⊛	65	63 - 108	3	30
3 & 4 Methylphenol	380	U	3810	2290	*	ug/Kg	⊛	60	61 - 108	6	30
Pentachlorophenol	300	U	7620	3310	*	ug/Kg	⊛	43	44 - 126	11	30
Naphthalene	380	U	3810	2200	*	ug/Kg	⊛	58	63 - 106	1	30
Acenaphthylene	380	U	3810	2240	*	ug/Kg	⊛	59	64 - 108	1	30
Acenaphthene	380	U	3810	1830	*	ug/Kg	⊛	48	53 - 110	2	30
Dibenzofuran	380	U	3810	2190	*	ug/Kg	⊛	58	65 - 108	2	30
Fluorene	380	U	3810	2240	*	ug/Kg	⊛	59	65 - 109	2	30
Hexachlorobenzene	38	U	3810	2400		ug/Kg	⊛	63	61 - 113	3	30
Phenanthrene	380	U	3810	2340	*	ug/Kg	⊛	61	66 - 112	1	30
Anthracene	380	U	3810	2370	*	ug/Kg	⊛	62	67 - 114	1	30
Fluoranthene	380	U	3810	2270	*	ug/Kg	⊛	60	61 - 106	3	30
Pyrene	380	U	3810	2570		ug/Kg	⊛	67	61 - 111	3	30
Benzo[a]anthracene	38	U	3810	2390	*	ug/Kg	⊛	63	67 - 115	4	30
Chrysene	380	U	3810	2420	*	ug/Kg	⊛	63	71 - 122	3	30
Benzo[b]fluoranthene	38	U	3810	2640	*	ug/Kg	⊛	69	70 - 125	3	30
Benzo[k]fluoranthene	38	U	3810	2810		ug/Kg	⊛	74	67 - 115	3	30
Benzo[a]pyrene	38	U	3810	2940		ug/Kg	⊛	77	73 - 123	4	30
Indeno[1,2,3-cd]pyrene	38	U	3810	2340	*	ug/Kg	⊛	61	62 - 121	2	30
Dibenz(a,h)anthracene	38	U	3810	2540		ug/Kg	⊛	67	66 - 119	5	30
Benzo[g,h,i]perylene	380	U	3810	2350		ug/Kg	⊛	62	61 - 113	5	30
1,4-Dioxane	38	U	3810	1080	*	ug/Kg	⊛	28	31 - 81	5	30
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
Nitrobenzene-d5 (Surr)	60		11 - 104								
Phenol-d5 (Surr)	62		15 - 100								
Terphenyl-d14 (Surr)	74		12 - 126								
2,4,6-Tribromophenol (Surr)	64		10 - 123								
2-Fluorophenol (Surr)	60		10 - 105								
2-Fluorobiphenyl	54		14 - 103								

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 460-799242/1-A

Matrix: Water

Analysis Batch: 799453

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799242

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		09/01/21 07:48	09/02/21 10:59	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	54		10 - 150				09/01/21 07:48	09/02/21 10:59	1

Lab Sample ID: LCS 460-799242/2-A

Matrix: Water

Analysis Batch: 799453

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799242

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1.60	1.35		ug/L		84	50 - 142
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8	56		10 - 150				

Lab Sample ID: LCSD 460-799242/3-A

Matrix: Water

Analysis Batch: 799453

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799242

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	1.60	1.10		ug/L		69	50 - 142	20	20
Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits						
1,4-Dioxane-d8	55		10 - 150						

Lab Sample ID: 460-241844-J-1-B MSD

Matrix: Water

Analysis Batch: 799453

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799242

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	0.17	J	1.60	1.47		ug/L		81	50 - 142	1	20
Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits								
1,4-Dioxane-d8	40		10 - 150								

Lab Sample ID: 460-241844-P-1-B MS

Matrix: Water

Analysis Batch: 799453

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799242

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	0.17	J	1.60	1.46		ug/L		80	50 - 142
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
1,4-Dioxane-d8	45		10 - 150						

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-799434/1-A

Matrix: Water

Analysis Batch: 799389

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799434

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.020	U	0.020	0.0030	ug/L		09/02/21 08:19	09/02/21 14:58	1
Aldrin	0.020	U	0.020	0.0030	ug/L		09/02/21 08:19	09/02/21 14:58	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		09/02/21 08:19	09/02/21 14:58	1
alpha-BHC	0.020	U	0.020	0.0070	ug/L		09/02/21 08:19	09/02/21 14:58	1
beta-BHC	0.020	U	0.020	0.015	ug/L		09/02/21 08:19	09/02/21 14:58	1
beta-BHC	0.020	U	0.020	0.015	ug/L		09/02/21 08:19	09/02/21 14:58	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		09/02/21 08:19	09/02/21 14:58	1
4,4'-DDD	0.020	U	0.020	0.0060	ug/L		09/02/21 08:19	09/02/21 14:58	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		09/02/21 08:19	09/02/21 14:58	1
Chlordane (technical)	0.50	U	0.50	0.055	ug/L		09/02/21 08:19	09/02/21 14:58	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		09/02/21 08:19	09/02/21 14:58	1
4,4'-DDE	0.020	U	0.020	0.0020	ug/L		09/02/21 08:19	09/02/21 14:58	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		09/02/21 08:19	09/02/21 14:58	1
4,4'-DDT	0.020	U	0.020	0.0040	ug/L		09/02/21 08:19	09/02/21 14:58	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		09/02/21 08:19	09/02/21 14:58	1
delta-BHC	0.020	U	0.020	0.0050	ug/L		09/02/21 08:19	09/02/21 14:58	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		09/02/21 08:19	09/02/21 14:58	1
Dieldrin	0.020	U	0.020	0.0030	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endosulfan I	0.020	U	0.020	0.0020	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endosulfan II	0.020	U	0.020	0.0040	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endosulfan sulfate	0.020	U	0.020	0.0060	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endrin	0.020	U	0.020	0.0040	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endrin	0.020	U	0.020	0.0040	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endrin aldehyde	0.020	U	0.020	0.0080	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		09/02/21 08:19	09/02/21 14:58	1
Endrin ketone	0.020	U	0.020	0.0080	ug/L		09/02/21 08:19	09/02/21 14:58	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		09/02/21 08:19	09/02/21 14:58	1
gamma-BHC (Lindane)	0.020	U	0.020	0.012	ug/L		09/02/21 08:19	09/02/21 14:58	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		09/02/21 08:19	09/02/21 14:58	1
Heptachlor	0.020	U	0.020	0.0030	ug/L		09/02/21 08:19	09/02/21 14:58	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		09/02/21 08:19	09/02/21 14:58	1
Heptachlor epoxide	0.020	U	0.020	0.0050	ug/L		09/02/21 08:19	09/02/21 14:58	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		09/02/21 08:19	09/02/21 14:58	1
Methoxychlor	0.020	U	0.020	0.0040	ug/L		09/02/21 08:19	09/02/21 14:58	1
Toxaphene	0.50	U	0.50	0.11	ug/L		09/02/21 08:19	09/02/21 14:58	1
Toxaphene	0.50	U	0.50	0.11	ug/L		09/02/21 08:19	09/02/21 14:58	1
cis-Chlordane	0.020	U	0.020	0.0020	ug/L		09/02/21 08:19	09/02/21 14:58	1
cis-Chlordane	0.020	U	0.020	0.0020	ug/L		09/02/21 08:19	09/02/21 14:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		10 - 150	09/02/21 08:19	09/02/21 14:58	1
Tetrachloro-m-xylene	72		10 - 150	09/02/21 08:19	09/02/21 14:58	1
DCB Decachlorobiphenyl	76		10 - 150	09/02/21 08:19	09/02/21 14:58	1
DCB Decachlorobiphenyl	76		10 - 150	09/02/21 08:19	09/02/21 14:58	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 460-799434/2-A

Matrix: Water

Analysis Batch: 799389

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin	0.800	0.953		ug/L		119	53 - 142
Aldrin	0.800	0.902		ug/L		113	53 - 142
alpha-BHC	0.800	0.944		ug/L		118	65 - 134
alpha-BHC	0.800	0.920		ug/L		115	65 - 134
beta-BHC	0.800	0.989		ug/L		124	72 - 141
beta-BHC	0.800	0.954		ug/L		119	72 - 141
4,4'-DDD	0.800	0.985		ug/L		123	67 - 135
4,4'-DDD	0.800	0.936		ug/L		117	67 - 135
4,4'-DDE	0.800	0.979		ug/L		122	65 - 135
4,4'-DDE	0.800	0.920		ug/L		115	65 - 135
4,4'-DDT	0.800	0.929		ug/L		116	62 - 136
4,4'-DDT	0.800	0.882		ug/L		110	62 - 136
delta-BHC	0.800	0.994		ug/L		124	41 - 147
delta-BHC	0.800	0.953		ug/L		119	41 - 147
Dieldrin	0.800	0.962		ug/L		120	66 - 133
Dieldrin	0.800	0.909		ug/L		114	66 - 133
Endosulfan I	0.800	0.946		ug/L		118	64 - 132
Endosulfan I	0.800	0.886		ug/L		111	64 - 132
Endosulfan II	0.800	0.968		ug/L		121	67 - 134
Endosulfan II	0.800	0.914		ug/L		114	67 - 134
Endosulfan sulfate	0.800	0.959		ug/L		120	47 - 158
Endosulfan sulfate	0.800	0.894		ug/L		112	47 - 158
Endrin	0.800	0.952		ug/L		119	67 - 132
Endrin	0.800	0.897		ug/L		112	67 - 132
Endrin aldehyde	0.800	0.953		ug/L		119	54 - 132
Endrin aldehyde	0.800	0.896		ug/L		112	54 - 132
Endrin ketone	0.800	0.983		ug/L		123	68 - 132
Endrin ketone	0.800	0.903		ug/L		113	68 - 132
gamma-BHC (Lindane)	0.800	0.954		ug/L		119	65 - 134
gamma-BHC (Lindane)	0.800	0.931		ug/L		116	65 - 134
Heptachlor	0.800	0.900		ug/L		113	63 - 128
Heptachlor	0.800	0.867		ug/L		108	63 - 128
Heptachlor epoxide	0.800	0.940		ug/L		118	66 - 128
Heptachlor epoxide	0.800	0.888		ug/L		111	66 - 128
Methoxychlor	0.800	0.868		ug/L		108	42 - 151
Methoxychlor	0.800	0.837		ug/L		105	42 - 151
cis-Chlordane	0.800	0.954		ug/L		119	64 - 130
cis-Chlordane	0.800	0.883		ug/L		110	64 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	80		10 - 150
Tetrachloro-m-xylene	78		10 - 150
DCB Decachlorobiphenyl	82		10 - 150
DCB Decachlorobiphenyl	83		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-799434/3-A

Matrix: Water

Analysis Batch: 799389

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799434

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aldrin	0.800	0.939		ug/L		117	53 - 142	1	30
Aldrin	0.800	0.885		ug/L		111	53 - 142	2	30
alpha-BHC	0.800	0.934		ug/L		117	65 - 134	1	30
alpha-BHC	0.800	0.903		ug/L		113	65 - 134	2	30
beta-BHC	0.800	0.974		ug/L		122	72 - 141	1	30
beta-BHC	0.800	0.937		ug/L		117	72 - 141	2	30
4,4'-DDD	0.800	0.970		ug/L		121	67 - 135	2	30
4,4'-DDD	0.800	0.918		ug/L		115	67 - 135	2	30
4,4'-DDE	0.800	0.966		ug/L		121	65 - 135	1	30
4,4'-DDE	0.800	0.903		ug/L		113	65 - 135	2	30
4,4'-DDT	0.800	0.917		ug/L		115	62 - 136	1	30
4,4'-DDT	0.800	0.865		ug/L		108	62 - 136	2	30
delta-BHC	0.800	0.981		ug/L		123	41 - 147	1	30
delta-BHC	0.800	0.934		ug/L		117	41 - 147	2	30
Dieldrin	0.800	0.949		ug/L		119	66 - 133	1	30
Dieldrin	0.800	0.890		ug/L		111	66 - 133	2	30
Endosulfan I	0.800	0.930		ug/L		116	64 - 132	2	30
Endosulfan I	0.800	0.868		ug/L		109	64 - 132	2	30
Endosulfan II	0.800	0.954		ug/L		119	67 - 134	2	30
Endosulfan II	0.800	0.896		ug/L		112	67 - 134	2	30
Endosulfan sulfate	0.800	0.943		ug/L		118	47 - 158	2	30
Endosulfan sulfate	0.800	0.876		ug/L		109	47 - 158	2	30
Endrin	0.800	0.939		ug/L		117	67 - 132	1	30
Endrin	0.800	0.879		ug/L		110	67 - 132	2	30
Endrin aldehyde	0.800	0.935		ug/L		117	54 - 132	2	30
Endrin aldehyde	0.800	0.878		ug/L		110	54 - 132	2	30
Endrin ketone	0.800	0.963		ug/L		120	68 - 132	2	30
Endrin ketone	0.800	0.881		ug/L		110	68 - 132	2	30
gamma-BHC (Lindane)	0.800	0.942		ug/L		118	65 - 134	1	30
gamma-BHC (Lindane)	0.800	0.915		ug/L		114	65 - 134	2	30
Heptachlor	0.800	0.888		ug/L		111	63 - 128	1	30
Heptachlor	0.800	0.851		ug/L		106	63 - 128	2	30
Heptachlor epoxide	0.800	0.926		ug/L		116	66 - 128	1	30
Heptachlor epoxide	0.800	0.870		ug/L		109	66 - 128	2	30
Methoxychlor	0.800	0.856		ug/L		107	42 - 151	1	30
Methoxychlor	0.800	0.819		ug/L		102	42 - 151	2	30
cis-Chlordane	0.800	0.940		ug/L		118	64 - 130	1	30
cis-Chlordane	0.800	0.866		ug/L		108	64 - 130	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	88		10 - 150
Tetrachloro-m-xylene	87		10 - 150
DCB Decachlorobiphenyl	90		10 - 150
DCB Decachlorobiphenyl	91		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-241934-H-4-B MS

Matrix: Water

Analysis Batch: 799389

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799434

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin	0.020	U	0.800	0.869		ug/L		109	53 - 142
Aldrin	0.020	U	0.800	0.871		ug/L		109	53 - 142
alpha-BHC	0.020	U	0.800	0.882		ug/L		110	65 - 134
alpha-BHC	0.020	U	0.800	0.922		ug/L		115	65 - 134
beta-BHC	0.020	U	0.800	0.906		ug/L		113	72 - 141
beta-BHC	0.020	U	0.800	0.965		ug/L		121	72 - 141
4,4'-DDD	0.020	U	0.800	0.959		ug/L		120	67 - 135
4,4'-DDD	0.020	U	0.800	0.942		ug/L		118	67 - 135
4,4'-DDE	0.020	U	0.800	0.943		ug/L		118	65 - 135
4,4'-DDE	0.020	U	0.800	0.898		ug/L		112	65 - 135
4,4'-DDT	0.020	U	0.800	0.989		ug/L		124	62 - 136
4,4'-DDT	0.020	U	0.800	0.977		ug/L		122	62 - 136
delta-BHC	0.020	U	0.800	0.986		ug/L		123	41 - 147
delta-BHC	0.020	U	0.800	1.01		ug/L		126	41 - 147
Dieldrin	0.020	U	0.800	0.945		ug/L		118	66 - 133
Dieldrin	0.020	U	0.800	0.907		ug/L		113	66 - 133
Endosulfan I	0.020	U	0.800	1.00		ug/L		126	64 - 132
Endosulfan I	0.020	U	0.800	0.966		ug/L		121	64 - 132
Endosulfan II	0.020	U	0.800	1.00		ug/L		125	67 - 134
Endosulfan II	0.020	U	0.800	0.934		ug/L		117	67 - 134
Endosulfan sulfate	0.020	U	0.800	0.997		ug/L		125	47 - 158
Endosulfan sulfate	0.020	U	0.800	0.987		ug/L		123	47 - 158
Endrin	0.020	U	0.800	0.970		ug/L		121	67 - 132
Endrin	0.020	U	0.800	0.958		ug/L		120	67 - 132
Endrin aldehyde	0.020	U	0.800	0.835		ug/L		104	54 - 132
Endrin aldehyde	0.020	U	0.800	0.817		ug/L		102	54 - 132
Endrin ketone	0.020	U	0.800	1.00		ug/L		125	68 - 132
Endrin ketone	0.020	U	0.800	0.987		ug/L		123	68 - 132
gamma-BHC (Lindane)	0.020	U	0.800	0.911		ug/L		114	65 - 134
gamma-BHC (Lindane)	0.020	U	0.800	0.926		ug/L		116	65 - 134
Heptachlor	0.020	U	0.800	0.875		ug/L		109	63 - 128
Heptachlor	0.020	U	0.800	0.905		ug/L		113	63 - 128
Heptachlor epoxide	0.020	U	0.800	0.908		ug/L		114	66 - 128
Heptachlor epoxide	0.020	U	0.800	0.861		ug/L		108	66 - 128
Methoxychlor	0.020	U	0.800	0.915		ug/L		114	42 - 151
Methoxychlor	0.020	U	0.800	0.990		ug/L		124	42 - 151
cis-Chlordane	0.020	U	0.800	0.911		ug/L		114	64 - 130
cis-Chlordane	0.020	U	0.800	0.856		ug/L		107	64 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	74		10 - 150
Tetrachloro-m-xylene	76		10 - 150
DCB Decachlorobiphenyl	82		10 - 150
DCB Decachlorobiphenyl	82		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-241934-I-4-B MSD

Matrix: Water

Analysis Batch: 799389

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799434

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aldrin	0.020	U	0.800	0.918		ug/L		115	53 - 142	6	30
Aldrin	0.020	U	0.800	0.927		ug/L		116	53 - 142	6	30
alpha-BHC	0.020	U	0.800	0.930		ug/L		116	65 - 134	5	30
alpha-BHC	0.020	U	0.800	0.970		ug/L		121	65 - 134	5	30
beta-BHC	0.020	U	0.800	0.969		ug/L		121	72 - 141	7	30
beta-BHC	0.020	U	0.800	1.03		ug/L		129	72 - 141	6	30
4,4'-DDD	0.020	U	0.800	1.02		ug/L		127	67 - 135	6	30
4,4'-DDD	0.020	U	0.800	0.996		ug/L		124	67 - 135	6	30
4,4'-DDE	0.020	U	0.800	0.999		ug/L		125	65 - 135	6	30
4,4'-DDE	0.020	U	0.800	0.950		ug/L		119	65 - 135	6	30
4,4'-DDT	0.020	U	0.800	1.05		ug/L		131	62 - 136	6	30
4,4'-DDT	0.020	U	0.800	1.03		ug/L		129	62 - 136	5	30
delta-BHC	0.020	U	0.800	1.06		ug/L		132	41 - 147	7	30
delta-BHC	0.020	U	0.800	1.08		ug/L		136	41 - 147	7	30
Dieldrin	0.020	U	0.800	1.01		ug/L		126	66 - 133	6	30
Dieldrin	0.020	U	0.800	0.961		ug/L		120	66 - 133	6	30
Endosulfan I	0.020	U	0.800	1.06	*	ug/L		133	64 - 132	6	30
Endosulfan I	0.020	U	0.800	1.03		ug/L		128	64 - 132	6	30
Endosulfan II	0.020	U	0.800	1.05		ug/L		132	67 - 134	5	30
Endosulfan II	0.020	U	0.800	0.988		ug/L		123	67 - 134	6	30
Endosulfan sulfate	0.020	U	0.800	1.06		ug/L		132	47 - 158	6	30
Endosulfan sulfate	0.020	U	0.800	1.05		ug/L		131	47 - 158	6	30
Endrin	0.020	U	0.800	1.04		ug/L		129	67 - 132	7	30
Endrin	0.020	U	0.800	1.01		ug/L		127	67 - 132	6	30
Endrin aldehyde	0.020	U	0.800	0.885		ug/L		111	54 - 132	6	30
Endrin aldehyde	0.020	U	0.800	0.865		ug/L		108	54 - 132	6	30
Endrin ketone	0.020	U	0.800	1.07	*	ug/L		134	68 - 132	7	30
Endrin ketone	0.020	U	0.800	1.05		ug/L		131	68 - 132	6	30
gamma-BHC (Lindane)	0.020	U	0.800	0.950		ug/L		119	65 - 134	4	30
gamma-BHC (Lindane)	0.020	U	0.800	0.984		ug/L		123	65 - 134	6	30
Heptachlor	0.020	U	0.800	0.925		ug/L		116	63 - 128	6	30
Heptachlor	0.020	U	0.800	0.959		ug/L		120	63 - 128	6	30
Heptachlor epoxide	0.020	U	0.800	0.960		ug/L		120	66 - 128	6	30
Heptachlor epoxide	0.020	U	0.800	0.923		ug/L		115	66 - 128	7	30
Methoxychlor	0.020	U	0.800	0.982		ug/L		123	42 - 151	7	30
Methoxychlor	0.020	U	0.800	1.05		ug/L		132	42 - 151	6	30
cis-Chlordane	0.020	U	0.800	0.966		ug/L		121	64 - 130	6	30
cis-Chlordane	0.020	U	0.800	0.904		ug/L		113	64 - 130	6	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	83		10 - 150
Tetrachloro-m-xylene	88		10 - 150
DCB Decachlorobiphenyl	94		10 - 150
DCB Decachlorobiphenyl	96		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-799533/1-A

Matrix: Solid

Analysis Batch: 799574

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Chlordane (technical)	67	U	67	16	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Chlordane (technical)	67	U	67	16	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endrin	6.7	U	6.7	0.96	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endrin	6.7	U	6.7	0.96	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Toxaphene	67	U	67	24	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
Toxaphene	67	U	67	24	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		09/02/21 18:26	09/03/21 07:41	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		09/02/21 18:26	09/03/21 07:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	97		10 - 133	09/02/21 18:26	09/03/21 07:41	1
Tetrachloro-m-xylene	93		10 - 133	09/02/21 18:26	09/03/21 07:41	1
DCB Decachlorobiphenyl	98		10 - 150	09/02/21 18:26	09/03/21 07:41	1
DCB Decachlorobiphenyl	100		10 - 150	09/02/21 18:26	09/03/21 07:41	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 460-799533/2-A

Matrix: Solid

Analysis Batch: 799574

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin	133	141		ug/Kg		106	74 - 140
Aldrin	133	156		ug/Kg		117	74 - 140
alpha-BHC	133	137		ug/Kg		102	72 - 142
alpha-BHC	133	157		ug/Kg		118	72 - 142
beta-BHC	133	152		ug/Kg		114	65 - 137
beta-BHC	133	171		ug/Kg		128	65 - 137
4,4'-DDD	133	139		ug/Kg		104	70 - 140
4,4'-DDD	133	163		ug/Kg		122	70 - 140
4,4'-DDE	133	142		ug/Kg		106	71 - 137
4,4'-DDE	133	161		ug/Kg		121	71 - 137
4,4'-DDT	133	163		ug/Kg		122	63 - 131
4,4'-DDT	133	151		ug/Kg		113	63 - 131
delta-BHC	133	143		ug/Kg		107	70 - 143
delta-BHC	133	157		ug/Kg		118	70 - 143
Dieldrin	133	143		ug/Kg		107	70 - 135
Dieldrin	133	166		ug/Kg		124	70 - 135
Endosulfan I	133	146		ug/Kg		110	68 - 135
Endosulfan I	133	162		ug/Kg		121	68 - 135
Endosulfan II	133	153		ug/Kg		115	64 - 130
Endosulfan II	133	168		ug/Kg		126	64 - 130
Endosulfan sulfate	133	156		ug/Kg		117	66 - 143
Endosulfan sulfate	133	165		ug/Kg		124	66 - 143
Endrin	133	144		ug/Kg		108	68 - 136
Endrin	133	160		ug/Kg		120	68 - 136
Endrin aldehyde	133	152		ug/Kg		114	68 - 132
Endrin aldehyde	133	159		ug/Kg		119	68 - 132
Endrin ketone	133	169		ug/Kg		127	60 - 150
Endrin ketone	133	167		ug/Kg		125	60 - 150
gamma-BHC (Lindane)	133	143		ug/Kg		107	70 - 134
gamma-BHC (Lindane)	133	154		ug/Kg		116	70 - 134
Heptachlor	133	145		ug/Kg		109	69 - 134
Heptachlor	133	154		ug/Kg		115	69 - 134
Heptachlor epoxide	133	141		ug/Kg		106	70 - 135
Heptachlor epoxide	133	158		ug/Kg		119	70 - 135
Methoxychlor	133	160		ug/Kg		120	57 - 135
Methoxychlor	133	133		ug/Kg		100	57 - 135
cis-Chlordane	133	140		ug/Kg		105	70 - 136
cis-Chlordane	133	160		ug/Kg		120	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	89		10 - 133
Tetrachloro-m-xylene	92		10 - 133
DCB Decachlorobiphenyl	99		10 - 150
DCB Decachlorobiphenyl	98		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-799533/3-A

Matrix: Solid

Analysis Batch: 799574

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799533

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aldrin	133	132		ug/Kg		99	74 - 140	6	30
Aldrin	133	137		ug/Kg		103	74 - 140	13	30
alpha-BHC	133	127		ug/Kg		95	72 - 142	8	30
alpha-BHC	133	141		ug/Kg		105	72 - 142	11	30
beta-BHC	133	143		ug/Kg		107	65 - 137	6	30
beta-BHC	133	152		ug/Kg		114	65 - 137	11	30
4,4'-DDD	133	130		ug/Kg		97	70 - 140	7	30
4,4'-DDD	133	140		ug/Kg		105	70 - 140	15	30
4,4'-DDE	133	133		ug/Kg		100	71 - 137	6	30
4,4'-DDE	133	138		ug/Kg		103	71 - 137	16	30
4,4'-DDT	133	152		ug/Kg		114	63 - 131	7	30
4,4'-DDT	133	131		ug/Kg		98	63 - 131	14	30
delta-BHC	133	134		ug/Kg		100	70 - 143	7	30
delta-BHC	133	140		ug/Kg		105	70 - 143	12	30
Dieldrin	133	135		ug/Kg		101	70 - 135	6	30
Dieldrin	133	143		ug/Kg		107	70 - 135	15	30
Endosulfan I	133	137		ug/Kg		103	68 - 135	6	30
Endosulfan I	133	139		ug/Kg		104	68 - 135	15	30
Endosulfan II	133	142		ug/Kg		107	64 - 130	7	30
Endosulfan II	133	146		ug/Kg		110	64 - 130	14	30
Endosulfan sulfate	133	146		ug/Kg		110	66 - 143	6	30
Endosulfan sulfate	133	145		ug/Kg		109	66 - 143	13	30
Endrin	133	135		ug/Kg		101	68 - 136	6	30
Endrin	133	137		ug/Kg		103	68 - 136	15	30
Endrin aldehyde	133	143		ug/Kg		107	68 - 132	6	30
Endrin aldehyde	133	139		ug/Kg		105	68 - 132	13	30
Endrin ketone	133	158		ug/Kg		119	60 - 150	7	30
Endrin ketone	133	147		ug/Kg		110	60 - 150	13	30
gamma-BHC (Lindane)	133	133		ug/Kg		100	70 - 134	7	30
gamma-BHC (Lindane)	133	137		ug/Kg		103	70 - 134	11	30
Heptachlor	133	136		ug/Kg		102	69 - 134	7	30
Heptachlor	133	136		ug/Kg		102	69 - 134	12	30
Heptachlor epoxide	133	133		ug/Kg		100	70 - 135	6	30
Heptachlor epoxide	133	137		ug/Kg		103	70 - 135	14	30
Methoxychlor	133	151		ug/Kg		113	57 - 135	6	30
Methoxychlor	133	115		ug/Kg		87	57 - 135	14	30
cis-Chlordane	133	132		ug/Kg		99	70 - 136	6	30
cis-Chlordane	133	137		ug/Kg		103	70 - 136	15	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	83		10 - 133
Tetrachloro-m-xylene	85		10 - 133
DCB Decachlorobiphenyl	93		10 - 150
DCB Decachlorobiphenyl	88		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 799574

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	7.9	U	157	118		ug/Kg	✱	75	70 - 140
4,4'-DDD	7.9	U	157	119		ug/Kg	✱	76	70 - 140
4,4'-DDE	7.9	U	157	117		ug/Kg	✱	75	71 - 137
4,4'-DDE	7.9	U	157	117		ug/Kg	✱	74	71 - 137
4,4'-DDT	7.9	U	157	134		ug/Kg	✱	85	63 - 131
4,4'-DDT	7.9	U	157	105		ug/Kg	✱	67	63 - 131
Aldrin	7.9	U	157	118		ug/Kg	✱	75	74 - 140
Aldrin	7.9	U	157	118		ug/Kg	✱	75	74 - 140
alpha-BHC	2.4	U	157	110	*	ug/Kg	✱	70	72 - 142
alpha-BHC	2.4	U	157	120		ug/Kg	✱	77	72 - 142
beta-BHC	2.4	U	157	130		ug/Kg	✱	83	65 - 137
beta-BHC	2.4	U	157	130		ug/Kg	✱	83	65 - 137
delta-BHC	2.4	U	157	118		ug/Kg	✱	75	70 - 143
delta-BHC	2.4	U	157	119		ug/Kg	✱	76	70 - 143
Dieldrin	2.4	U	157	119		ug/Kg	✱	76	70 - 135
Dieldrin	2.4	U	157	122		ug/Kg	✱	78	70 - 135
Endosulfan I	7.9	U	157	121		ug/Kg	✱	77	68 - 135
Endosulfan I	7.9	U	157	120		ug/Kg	✱	76	68 - 135
Endosulfan II	7.9	U	157	131		ug/Kg	✱	84	64 - 130
Endosulfan II	7.9	U	157	124		ug/Kg	✱	79	64 - 130
Endosulfan sulfate	7.9	U	157	128		ug/Kg	✱	82	66 - 143
Endosulfan sulfate	7.9	U	157	123		ug/Kg	✱	78	66 - 143
Endrin	7.9	U	157	119		ug/Kg	✱	76	68 - 136
Endrin	7.9	U	157	115		ug/Kg	✱	73	68 - 136
Endrin aldehyde	7.9	U	157	128		ug/Kg	✱	81	68 - 132
Endrin aldehyde	7.9	U	157	119		ug/Kg	✱	76	68 - 132
Endrin ketone	7.9	U	157	136		ug/Kg	✱	87	60 - 150
Endrin ketone	7.9	U	157	124		ug/Kg	✱	79	60 - 150
gamma-BHC (Lindane)	2.4	U	157	116		ug/Kg	✱	74	70 - 134
gamma-BHC (Lindane)	2.4	U	157	117		ug/Kg	✱	75	70 - 134
Heptachlor	7.9	U	157	120		ug/Kg	✱	76	69 - 134
Heptachlor	7.9	U	157	116		ug/Kg	✱	74	69 - 134
Heptachlor epoxide	7.9	U	157	119		ug/Kg	✱	76	70 - 135
Heptachlor epoxide	7.9	U	157	118		ug/Kg	✱	75	70 - 135
Methoxychlor	7.9	U	157	133		ug/Kg	✱	85	57 - 135
Methoxychlor	7.9	U	157	92.3		ug/Kg	✱	59	57 - 135
cis-Chlordane	7.9	U	157	116		ug/Kg	✱	74	70 - 136
cis-Chlordane	7.9	U	157	118		ug/Kg	✱	75	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	71		10 - 150
DCB Decachlorobiphenyl	63		10 - 150
Tetrachloro-m-xylene	62		10 - 133
Tetrachloro-m-xylene	61		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-241982-5 MSD

Matrix: Solid

Analysis Batch: 799574

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	7.9	U	157	118		ug/Kg	✱	75	70 - 140	0	30
4,4'-DDD	7.9	U	157	135		ug/Kg	✱	86	70 - 140	13	30
4,4'-DDE	7.9	U	157	121		ug/Kg	✱	77	71 - 137	3	30
4,4'-DDE	7.9	U	157	133		ug/Kg	✱	85	71 - 137	13	30
4,4'-DDT	7.9	U	157	135		ug/Kg	✱	86	63 - 131	1	30
4,4'-DDT	7.9	U	157	119		ug/Kg	✱	76	63 - 131	12	30
Aldrin	7.9	U	157	126		ug/Kg	✱	80	74 - 140	7	30
Aldrin	7.9	U	157	132		ug/Kg	✱	84	74 - 140	11	30
alpha-BHC	2.4	U	157	121		ug/Kg	✱	77	72 - 142	10	30
alpha-BHC	2.4	U	157	134		ug/Kg	✱	85	72 - 142	11	30
beta-BHC	2.4	U	157	141		ug/Kg	✱	90	65 - 137	8	30
beta-BHC	2.4	U	157	144		ug/Kg	✱	92	65 - 137	11	30
delta-BHC	2.4	U	157	126		ug/Kg	✱	81	70 - 143	7	30
delta-BHC	2.4	U	157	132		ug/Kg	✱	84	70 - 143	10	30
Dieldrin	2.4	U	157	122		ug/Kg	✱	78	70 - 135	3	30
Dieldrin	2.4	U	157	139		ug/Kg	✱	88	70 - 135	13	30
Endosulfan I	7.9	U	157	126		ug/Kg	✱	80	68 - 135	4	30
Endosulfan I	7.9	U	157	136		ug/Kg	✱	87	68 - 135	13	30
Endosulfan II	7.9	U	157	130		ug/Kg	✱	83	64 - 130	1	30
Endosulfan II	7.9	U	157	141		ug/Kg	✱	90	64 - 130	12	30
Endosulfan sulfate	7.9	U	157	130		ug/Kg	✱	83	66 - 143	2	30
Endosulfan sulfate	7.9	U	157	137		ug/Kg	✱	87	66 - 143	11	30
Endrin	7.9	U	157	121		ug/Kg	✱	77	68 - 136	1	30
Endrin	7.9	U	157	131		ug/Kg	✱	83	68 - 136	13	30
Endrin aldehyde	7.9	U	157	130		ug/Kg	✱	83	68 - 132	1	30
Endrin aldehyde	7.9	U	157	133		ug/Kg	✱	85	68 - 132	11	30
Endrin ketone	7.9	U	157	139		ug/Kg	✱	88	60 - 150	2	30
Endrin ketone	7.9	U	157	138		ug/Kg	✱	88	60 - 150	10	30
gamma-BHC (Lindane)	2.4	U	157	127		ug/Kg	✱	81	70 - 134	9	30
gamma-BHC (Lindane)	2.4	U	157	131		ug/Kg	✱	83	70 - 134	11	30
Heptachlor	7.9	U	157	129		ug/Kg	✱	82	69 - 134	7	30
Heptachlor	7.9	U	157	128		ug/Kg	✱	82	69 - 134	10	30
Heptachlor epoxide	7.9	U	157	124		ug/Kg	✱	79	70 - 135	4	30
Heptachlor epoxide	7.9	U	157	134		ug/Kg	✱	85	70 - 135	13	30
Methoxychlor	7.9	U	157	135		ug/Kg	✱	86	57 - 135	1	30
Methoxychlor	7.9	U	157	102		ug/Kg	✱	65	57 - 135	10	30
cis-Chlordane	7.9	U	157	120		ug/Kg	✱	77	70 - 136	3	30
cis-Chlordane	7.9	U	157	134		ug/Kg	✱	85	70 - 136	13	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	74		10 - 150
DCB Decachlorobiphenyl	71		10 - 150
Tetrachloro-m-xylene	75		10 - 133
Tetrachloro-m-xylene	70		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-799534/1-A

Matrix: Solid

Analysis Batch: 799577

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Chlordane (technical)	67	U	67	16	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Chlordane (technical)	67	U	67	16	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endrin	6.7	U	6.7	0.96	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endrin	6.7	U	6.7	0.96	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Toxaphene	67	U	67	24	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
Toxaphene	67	U	67	24	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		09/02/21 18:28	09/03/21 04:56	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		09/02/21 18:28	09/03/21 04:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		10 - 133	09/02/21 18:28	09/03/21 04:56	1
Tetrachloro-m-xylene	91		10 - 133	09/02/21 18:28	09/03/21 04:56	1
DCB Decachlorobiphenyl	95		10 - 150	09/02/21 18:28	09/03/21 04:56	1
DCB Decachlorobiphenyl	114		10 - 150	09/02/21 18:28	09/03/21 04:56	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 460-799534/2-A

Matrix: Solid

Analysis Batch: 799577

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin	133	138		ug/Kg		104	74 - 140
Aldrin	133	136		ug/Kg		102	74 - 140
alpha-BHC	133	142		ug/Kg		106	72 - 142
alpha-BHC	133	139		ug/Kg		104	72 - 142
beta-BHC	133	139		ug/Kg		104	65 - 137
beta-BHC	133	139		ug/Kg		104	65 - 137
4,4'-DDD	133	137		ug/Kg		103	70 - 140
4,4'-DDD	133	135		ug/Kg		102	70 - 140
4,4'-DDE	133	139		ug/Kg		104	71 - 137
4,4'-DDE	133	136		ug/Kg		102	71 - 137
4,4'-DDT	133	152		ug/Kg		114	63 - 131
4,4'-DDT	133	136		ug/Kg		102	63 - 131
delta-BHC	133	138		ug/Kg		103	70 - 143
delta-BHC	133	136		ug/Kg		102	70 - 143
Dieldrin	133	139		ug/Kg		105	70 - 135
Dieldrin	133	135		ug/Kg		102	70 - 135
Endosulfan I	133	134		ug/Kg		100	68 - 135
Endosulfan I	133	130		ug/Kg		97	68 - 135
Endosulfan II	133	135		ug/Kg		101	64 - 130
Endosulfan II	133	134		ug/Kg		101	64 - 130
Endosulfan sulfate	133	133		ug/Kg		100	66 - 143
Endosulfan sulfate	133	134		ug/Kg		100	66 - 143
Endrin	133	135		ug/Kg		101	68 - 136
Endrin	133	133		ug/Kg		100	68 - 136
Endrin aldehyde	133	131		ug/Kg		98	68 - 132
Endrin aldehyde	133	131		ug/Kg		99	68 - 132
Endrin ketone	133	131		ug/Kg		98	60 - 150
Endrin ketone	133	132		ug/Kg		99	60 - 150
gamma-BHC (Lindane)	133	139		ug/Kg		105	70 - 134
gamma-BHC (Lindane)	133	139		ug/Kg		104	70 - 134
Heptachlor	133	135		ug/Kg		101	69 - 134
Heptachlor	133	129		ug/Kg		97	69 - 134
Heptachlor epoxide	133	135		ug/Kg		101	70 - 135
Heptachlor epoxide	133	133		ug/Kg		99	70 - 135
Methoxychlor	133	142		ug/Kg		107	57 - 135
Methoxychlor	133	126		ug/Kg		94	57 - 135
cis-Chlordane	133	133		ug/Kg		100	70 - 136
cis-Chlordane	133	132		ug/Kg		99	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	84		10 - 133
Tetrachloro-m-xylene	86		10 - 133
DCB Decachlorobiphenyl	89		10 - 150
DCB Decachlorobiphenyl	103		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-799534/3-A

Matrix: Solid

Analysis Batch: 799577

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799534

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aldrin	133	160		ug/Kg		120	74 - 140	15	30
Aldrin	133	158		ug/Kg		119	74 - 140	15	30
alpha-BHC	133	165		ug/Kg		124	72 - 142	15	30
alpha-BHC	133	162		ug/Kg		122	72 - 142	16	30
beta-BHC	133	163		ug/Kg		123	65 - 137	16	30
beta-BHC	133	163		ug/Kg		122	65 - 137	16	30
4,4'-DDD	133	160		ug/Kg		120	70 - 140	15	30
4,4'-DDD	133	159		ug/Kg		119	70 - 140	16	30
4,4'-DDE	133	162		ug/Kg		121	71 - 137	15	30
4,4'-DDE	133	159		ug/Kg		119	71 - 137	15	30
4,4'-DDT	133	180	*	ug/Kg		135	63 - 131	17	30
4,4'-DDT	133	161		ug/Kg		121	63 - 131	17	30
delta-BHC	133	162		ug/Kg		121	70 - 143	16	30
delta-BHC	133	160		ug/Kg		120	70 - 143	16	30
Dieldrin	133	161		ug/Kg		121	70 - 135	14	30
Dieldrin	133	158		ug/Kg		118	70 - 135	15	30
Endosulfan I	133	154		ug/Kg		116	68 - 135	14	30
Endosulfan I	133	151		ug/Kg		113	68 - 135	15	30
Endosulfan II	133	156		ug/Kg		117	64 - 130	15	30
Endosulfan II	133	157		ug/Kg		118	64 - 130	16	30
Endosulfan sulfate	133	155		ug/Kg		116	66 - 143	15	30
Endosulfan sulfate	133	156		ug/Kg		117	66 - 143	15	30
Endrin	133	156		ug/Kg		117	68 - 136	15	30
Endrin	133	155		ug/Kg		116	68 - 136	15	30
Endrin aldehyde	133	153		ug/Kg		115	68 - 132	15	30
Endrin aldehyde	133	154		ug/Kg		115	68 - 132	16	30
Endrin ketone	133	152		ug/Kg		114	60 - 150	15	30
Endrin ketone	133	154		ug/Kg		115	60 - 150	15	30
gamma-BHC (Lindane)	133	163		ug/Kg		122	70 - 134	16	30
gamma-BHC (Lindane)	133	162		ug/Kg		122	70 - 134	15	30
Heptachlor	133	157		ug/Kg		118	69 - 134	15	30
Heptachlor	133	150		ug/Kg		113	69 - 134	15	30
Heptachlor epoxide	133	156		ug/Kg		117	70 - 135	15	30
Heptachlor epoxide	133	154		ug/Kg		115	70 - 135	15	30
Methoxychlor	133	169		ug/Kg		127	57 - 135	17	30
Methoxychlor	133	147		ug/Kg		110	57 - 135	15	30
cis-Chlordane	133	154		ug/Kg		115	70 - 136	15	30
cis-Chlordane	133	154		ug/Kg		116	70 - 136	15	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	82		10 - 133
Tetrachloro-m-xylene	85		10 - 133
DCB Decachlorobiphenyl	87		10 - 150
DCB Decachlorobiphenyl	99		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 799577

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799534

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	7.7	U	152	105	*	ug/Kg	⊛	69	70 - 140
4,4'-DDD	7.7	U	152	105	*	ug/Kg	⊛	69	70 - 140
4,4'-DDE	7.7	U	152	105	*	ug/Kg	⊛	69	71 - 137
4,4'-DDE	7.7	U	152	104	*	ug/Kg	⊛	68	71 - 137
4,4'-DDT	7.7	U	152	109		ug/Kg	⊛	72	63 - 131
4,4'-DDT	7.7	U	152	100		ug/Kg	⊛	66	63 - 131
Aldrin	7.7	U	152	103	*	ug/Kg	⊛	68	74 - 140
Aldrin	7.7	U	152	105	*	ug/Kg	⊛	69	74 - 140
alpha-BHC	2.3	U	152	106	*	ug/Kg	⊛	69	72 - 142
alpha-BHC	2.3	U	152	107	*	ug/Kg	⊛	70	72 - 142
beta-BHC	2.3	U	152	107		ug/Kg	⊛	70	65 - 137
beta-BHC	2.3	U	152	109		ug/Kg	⊛	72	65 - 137
delta-BHC	2.3	U	152	104	*	ug/Kg	⊛	68	70 - 143
delta-BHC	2.3	U	152	105	*	ug/Kg	⊛	69	70 - 143
Dieldrin	2.3	U	152	106	*	ug/Kg	⊛	69	70 - 135
Dieldrin	2.3	U	152	104	*	ug/Kg	⊛	68	70 - 135
Endosulfan I	7.7	U	152	102	*	ug/Kg	⊛	67	68 - 135
Endosulfan I	7.7	U	152	100	*	ug/Kg	⊛	66	68 - 135
Endosulfan II	7.7	U	152	103		ug/Kg	⊛	68	64 - 130
Endosulfan II	7.7	U	152	104		ug/Kg	⊛	69	64 - 130
Endosulfan sulfate	7.7	U	152	102		ug/Kg	⊛	67	66 - 143
Endosulfan sulfate	7.7	U	152	105		ug/Kg	⊛	69	66 - 143
Endrin	7.7	U	152	102	*	ug/Kg	⊛	67	68 - 136
Endrin	7.7	U	152	102	*	ug/Kg	⊛	67	68 - 136
Endrin aldehyde	7.7	U	152	101	*	ug/Kg	⊛	66	68 - 132
Endrin aldehyde	7.7	U	152	103		ug/Kg	⊛	68	68 - 132
Endrin ketone	7.7	U	152	101		ug/Kg	⊛	66	60 - 150
Endrin ketone	7.7	U	152	104		ug/Kg	⊛	68	60 - 150
gamma-BHC (Lindane)	2.3	U	152	104	*	ug/Kg	⊛	68	70 - 134
gamma-BHC (Lindane)	2.3	U	152	107		ug/Kg	⊛	70	70 - 134
Heptachlor	7.7	U	152	100	*	ug/Kg	⊛	66	69 - 134
Heptachlor	7.7	U	152	98.6	*	ug/Kg	⊛	65	69 - 134
Heptachlor epoxide	7.7	U	152	102	*	ug/Kg	⊛	67	70 - 135
Heptachlor epoxide	7.7	U	152	103	*	ug/Kg	⊛	67	70 - 135
Methoxychlor	7.7	U	152	105		ug/Kg	⊛	69	57 - 135
Methoxychlor	7.7	U	152	94.9		ug/Kg	⊛	62	57 - 135
cis-Chlordane	7.7	U	152	101	*	ug/Kg	⊛	66	70 - 136
cis-Chlordane	7.7	U	152	102	*	ug/Kg	⊛	67	70 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	97		10 - 150
DCB Decachlorobiphenyl	106		10 - 150
Tetrachloro-m-xylene	95		10 - 133
Tetrachloro-m-xylene	93		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-241982-9 MSD

Matrix: Solid

Analysis Batch: 799577

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799534

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	7.7	U	152	118		ug/Kg	✱	78	70 - 140	12	30
4,4'-DDD	7.7	U	152	122		ug/Kg	✱	80	70 - 140	15	30
4,4'-DDE	7.7	U	152	120		ug/Kg	✱	79	71 - 137	13	30
4,4'-DDE	7.7	U	152	122		ug/Kg	✱	80	71 - 137	15	30
4,4'-DDT	7.7	U	152	125		ug/Kg	✱	82	63 - 131	14	30
4,4'-DDT	7.7	U	152	117		ug/Kg	✱	77	63 - 131	15	30
Aldrin	7.7	U	152	118		ug/Kg	✱	78	74 - 140	14	30
Aldrin	7.7	U	152	122		ug/Kg	✱	80	74 - 140	15	30
alpha-BHC	2.3	U	152	122		ug/Kg	✱	80	72 - 142	14	30
alpha-BHC	2.3	U	152	124		ug/Kg	✱	82	72 - 142	15	30
beta-BHC	2.3	U	152	122		ug/Kg	✱	80	65 - 137	13	30
beta-BHC	2.3	U	152	127		ug/Kg	✱	83	65 - 137	15	30
delta-BHC	2.3	U	152	119		ug/Kg	✱	78	70 - 143	14	30
delta-BHC	2.3	U	152	122		ug/Kg	✱	80	70 - 143	15	30
Dieldrin	2.3	U	152	120		ug/Kg	✱	79	70 - 135	13	30
Dieldrin	2.3	U	152	122		ug/Kg	✱	80	70 - 135	15	30
Endosulfan I	7.7	U	152	116		ug/Kg	✱	76	68 - 135	13	30
Endosulfan I	7.7	U	152	117		ug/Kg	✱	77	68 - 135	15	30
Endosulfan II	7.7	U	152	117		ug/Kg	✱	77	64 - 130	12	30
Endosulfan II	7.7	U	152	121		ug/Kg	✱	79	64 - 130	15	30
Endosulfan sulfate	7.7	U	152	117		ug/Kg	✱	76	66 - 143	13	30
Endosulfan sulfate	7.7	U	152	122		ug/Kg	✱	80	66 - 143	15	30
Endrin	7.7	U	152	116		ug/Kg	✱	76	68 - 136	13	30
Endrin	7.7	U	152	119		ug/Kg	✱	78	68 - 136	15	30
Endrin aldehyde	7.7	U	152	115		ug/Kg	✱	75	68 - 132	13	30
Endrin aldehyde	7.7	U	152	119		ug/Kg	✱	78	68 - 132	15	30
Endrin ketone	7.7	U	152	114		ug/Kg	✱	75	60 - 150	12	30
Endrin ketone	7.7	U	152	120		ug/Kg	✱	79	60 - 150	15	30
gamma-BHC (Lindane)	2.3	U	152	120		ug/Kg	✱	79	70 - 134	14	30
gamma-BHC (Lindane)	2.3	U	152	125		ug/Kg	✱	82	70 - 134	15	30
Heptachlor	7.7	U	152	115		ug/Kg	✱	75	69 - 134	14	30
Heptachlor	7.7	U	152	115		ug/Kg	✱	75	69 - 134	15	30
Heptachlor epoxide	7.7	U	152	117		ug/Kg	✱	77	70 - 135	13	30
Heptachlor epoxide	7.7	U	152	119		ug/Kg	✱	78	70 - 135	15	30
Methoxychlor	7.7	U	152	119		ug/Kg	✱	78	57 - 135	12	30
Methoxychlor	7.7	U	152	110		ug/Kg	✱	72	57 - 135	15	30
cis-Chlordane	7.7	U	152	115		ug/Kg	✱	75	70 - 136	13	30
cis-Chlordane	7.7	U	152	119		ug/Kg	✱	78	70 - 136	15	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	69		10 - 150
DCB Decachlorobiphenyl	85		10 - 150
Tetrachloro-m-xylene	69		10 - 133
Tetrachloro-m-xylene	69		10 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-799432/1-A

Matrix: Water

Analysis Batch: 799400

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799432

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1016	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/02/21 08:11	09/02/21 14:53	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		09/02/21 08:11	09/02/21 14:53	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		09/02/21 08:11	09/02/21 14:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 138	09/02/21 08:11	09/02/21 14:53	1
DCB Decachlorobiphenyl	90		10 - 138	09/02/21 08:11	09/02/21 14:53	1
Tetrachloro-m-xylene	59		10 - 150	09/02/21 08:11	09/02/21 14:53	1
Tetrachloro-m-xylene	84		10 - 150	09/02/21 08:11	09/02/21 14:53	1

Lab Sample ID: LCS 460-799432/2-A

Matrix: Water

Analysis Batch: 799631

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799432

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	4.00	4.21		ug/L		105	66 - 141
Aroclor 1016	4.00	4.42		ug/L		111	66 - 141
Aroclor 1260	4.00	4.18		ug/L		105	66 - 142
Aroclor 1260	4.00	4.41		ug/L		110	66 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	92		10 - 138
DCB Decachlorobiphenyl	94		10 - 138
Tetrachloro-m-xylene	93		10 - 150
Tetrachloro-m-xylene	96		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-799432/3-A

Matrix: Water

Analysis Batch: 799631

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799432

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor 1016	4.00	4.26		ug/L		107	66 - 141	1	30
Aroclor 1016	4.00	4.58		ug/L		115	66 - 141	4	30
Aroclor 1260	4.00	4.31		ug/L		108	66 - 142	3	30
Aroclor 1260	4.00	4.68		ug/L		117	66 - 142	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	97		10 - 138
DCB Decachlorobiphenyl	100		10 - 138
Tetrachloro-m-xylene	97		10 - 150
Tetrachloro-m-xylene	102		10 - 150

Lab Sample ID: 460-241934-I-4-A MS

Matrix: Water

Analysis Batch: 799400

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799432

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	0.40	U	4.00	4.01		ug/L		100	66 - 142
Aroclor 1016	0.40	U	4.00	3.57		ug/L		89	66 - 142
Aroclor 1260	0.40	U	4.00	4.12		ug/L		103	75 - 150
Aroclor 1260	0.40	U	4.00	4.01		ug/L		100	75 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	78		10 - 138
DCB Decachlorobiphenyl	85		10 - 138
Tetrachloro-m-xylene	48		10 - 150
Tetrachloro-m-xylene	69		10 - 150

Lab Sample ID: 460-241934-J-4-A MSD

Matrix: Water

Analysis Batch: 799400

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799432

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor 1016	0.40	U	4.00	4.26		ug/L		106	66 - 142	6	30
Aroclor 1016	0.40	U	4.00	3.80		ug/L		95	66 - 142	6	30
Aroclor 1260	0.40	U	4.00	4.38		ug/L		110	75 - 150	6	30
Aroclor 1260	0.40	U	4.00	4.15		ug/L		104	75 - 150	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	88		10 - 138
DCB Decachlorobiphenyl	95		10 - 138
Tetrachloro-m-xylene	55		10 - 150
Tetrachloro-m-xylene	80		10 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-799522/1-A

Matrix: Solid

Analysis Batch: 799593

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799522

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1016	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1221	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1221	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1232	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1232	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1242	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1242	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1248	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1248	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1254	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1254	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1260	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1260	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor-1262	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor-1262	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1268	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Aroclor 1268	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		09/02/21 17:59	09/03/21 07:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		37 - 150	09/02/21 17:59	09/03/21 07:26	1
DCB Decachlorobiphenyl	103		37 - 150	09/02/21 17:59	09/03/21 07:26	1
Tetrachloro-m-xylene	97		54 - 150	09/02/21 17:59	09/03/21 07:26	1
Tetrachloro-m-xylene	90		54 - 150	09/02/21 17:59	09/03/21 07:26	1

Lab Sample ID: LCS 460-799522/2-A

Matrix: Solid

Analysis Batch: 799593

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	333	349		ug/Kg		105	65 - 133
Aroclor 1016	333	324		ug/Kg		97	65 - 133
Aroclor 1260	333	371		ug/Kg		111	71 - 150
Aroclor 1260	333	342		ug/Kg		102	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	89		37 - 150
DCB Decachlorobiphenyl	92		37 - 150
Tetrachloro-m-xylene	85		54 - 150
Tetrachloro-m-xylene	81		54 - 150

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-799522/3-A

Matrix: Solid

Analysis Batch: 799593

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799522

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor 1016	333	327		ug/Kg		98	65 - 133	7	30
Aroclor 1016	333	303		ug/Kg		91	65 - 133	6	30
Aroclor 1260	333	341		ug/Kg		102	71 - 150	8	30
Aroclor 1260	333	315		ug/Kg		95	71 - 150	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	84		37 - 150
DCB Decachlorobiphenyl	85		37 - 150
Tetrachloro-m-xylene	80		54 - 150
Tetrachloro-m-xylene	77		54 - 150

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 799593

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799522

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	79	U	392	352		ug/Kg	⊛	90	65 - 133
Aroclor 1016	79	U	392	331		ug/Kg	⊛	84	65 - 133
Aroclor 1260	79	U	392	372		ug/Kg	⊛	95	71 - 150
Aroclor 1260	79	U	392	343		ug/Kg	⊛	87	71 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	79		37 - 150
DCB Decachlorobiphenyl	81		37 - 150
Tetrachloro-m-xylene	74		54 - 150
Tetrachloro-m-xylene	71		54 - 150

Lab Sample ID: 460-241982-5 MSD

Matrix: Solid

Analysis Batch: 799593

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799522

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor 1016	79	U	392	333		ug/Kg	⊛	85	65 - 133	5	30
Aroclor 1016	79	U	392	311		ug/Kg	⊛	79	65 - 133	6	30
Aroclor 1260	79	U	392	349		ug/Kg	⊛	89	71 - 150	6	30
Aroclor 1260	79	U	392	324		ug/Kg	⊛	83	71 - 150	6	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	73		37 - 150
DCB Decachlorobiphenyl	75		37 - 150
Tetrachloro-m-xylene	69		54 - 150
Tetrachloro-m-xylene	66		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-799523/1-A

Matrix: Solid

Analysis Batch: 799594

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799523

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1016	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1221	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1221	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1232	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1232	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1242	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1242	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1248	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1248	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1254	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1254	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1260	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1260	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor-1262	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor-1262	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1268	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Aroclor 1268	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		09/02/21 18:02	09/03/21 07:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		37 - 150	09/02/21 18:02	09/03/21 07:18	1
DCB Decachlorobiphenyl	100		37 - 150	09/02/21 18:02	09/03/21 07:18	1
Tetrachloro-m-xylene	105		54 - 150	09/02/21 18:02	09/03/21 07:18	1
Tetrachloro-m-xylene	103		54 - 150	09/02/21 18:02	09/03/21 07:18	1

Lab Sample ID: LCS 460-799523/2-A

Matrix: Solid

Analysis Batch: 799594

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799523

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	333	343		ug/Kg		103	65 - 133
Aroclor 1016	333	357		ug/Kg		107	65 - 133
Aroclor 1260	333	365		ug/Kg		109	71 - 150
Aroclor 1260	333	352		ug/Kg		106	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	69		37 - 150
DCB Decachlorobiphenyl	80		37 - 150
Tetrachloro-m-xylene	82		54 - 150
Tetrachloro-m-xylene	84		54 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-799523/3-A

Matrix: Solid

Analysis Batch: 799594

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799523

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor 1016	333	383		ug/Kg		115	65 - 133	11	30
Aroclor 1016	333	401		ug/Kg		120	65 - 133	12	30
Aroclor 1260	333	408		ug/Kg		122	71 - 150	11	30
Aroclor 1260	333	398		ug/Kg		119	71 - 150	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	76		37 - 150
DCB Decachlorobiphenyl	88		37 - 150
Tetrachloro-m-xylene	89		54 - 150
Tetrachloro-m-xylene	92		54 - 150

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 799594

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799523

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	77	U	381	319		ug/Kg	⊗	84	65 - 133
Aroclor 1016	77	U	381	326		ug/Kg	⊗	86	65 - 133
Aroclor 1260	77	U	381	336		ug/Kg	⊗	88	71 - 150
Aroclor 1260	77	U	381	320		ug/Kg	⊗	84	71 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	62		37 - 150
DCB Decachlorobiphenyl	69		37 - 150
Tetrachloro-m-xylene	73		54 - 150
Tetrachloro-m-xylene	72		54 - 150

Lab Sample ID: 460-241982-9 MSD

Matrix: Solid

Analysis Batch: 799594

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799523

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aroclor 1016	77	U	381	314		ug/Kg	⊗	82	65 - 133	2	30
Aroclor 1016	77	U	381	319		ug/Kg	⊗	84	65 - 133	2	30
Aroclor 1260	77	U	381	335		ug/Kg	⊗	88	71 - 150	0	30
Aroclor 1260	77	U	381	317		ug/Kg	⊗	83	71 - 150	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	62		37 - 150
DCB Decachlorobiphenyl	69		37 - 150
Tetrachloro-m-xylene	72		54 - 150
Tetrachloro-m-xylene	72		54 - 150

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-799563/1-A

Matrix: Water

Analysis Batch: 799628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799563

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	1.2	U	1.2	0.13	ug/L		09/03/21 00:11	09/03/21 11:24	1
2,4-D	1.2	U	1.2	0.13	ug/L		09/03/21 00:11	09/03/21 11:24	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		09/03/21 00:11	09/03/21 11:24	1
Silvex (2,4,5-TP)	1.2	U	1.2	0.11	ug/L		09/03/21 00:11	09/03/21 11:24	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		09/03/21 00:11	09/03/21 11:24	1
2,4,5-T	1.2	U	1.2	0.12	ug/L		09/03/21 00:11	09/03/21 11:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	103		28 - 150	09/03/21 00:11	09/03/21 11:24	1
2,4-Dichlorophenylacetic acid	97		28 - 150	09/03/21 00:11	09/03/21 11:24	1

Lab Sample ID: LCS 460-799563/2-A

Matrix: Water

Analysis Batch: 799628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799563

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	4.00	4.49		ug/L		112	36 - 139
2,4-D	4.00	4.20		ug/L		105	36 - 139
Silvex (2,4,5-TP)	1.00	1.13	J	ug/L		113	42 - 150
Silvex (2,4,5-TP)	1.00	1.27		ug/L		127	42 - 150
2,4,5-T	1.00	1.16	J	ug/L		116	45 - 150
2,4,5-T	1.00	1.07	J	ug/L		107	45 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	96		28 - 150
2,4-Dichlorophenylacetic acid	94		28 - 150

Lab Sample ID: LCSD 460-799563/3-A

Matrix: Water

Analysis Batch: 799628

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799563

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D	4.00	4.62		ug/L		115	36 - 139	3	30
2,4-D	4.00	4.34		ug/L		109	36 - 139	3	30
Silvex (2,4,5-TP)	1.00	1.14	J	ug/L		114	42 - 150	1	30
Silvex (2,4,5-TP)	1.00	1.28		ug/L		128	42 - 150	1	30
2,4,5-T	1.00	1.18	J	ug/L		118	45 - 150	2	30
2,4,5-T	1.00	1.09	J	ug/L		109	45 - 150	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	93		28 - 150
2,4-Dichlorophenylacetic acid	91		28 - 150

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 460-799564/1-A

Matrix: Solid

Analysis Batch: 799628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/03/21 00:12	09/03/21 15:47	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/03/21 00:12	09/03/21 15:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	110		65 - 150				09/03/21 00:12	09/03/21 15:47	1
2,4-Dichlorophenylacetic acid	101		65 - 150				09/03/21 00:12	09/03/21 15:47	1

Lab Sample ID: LCS 460-799564/2-A

Matrix: Solid

Analysis Batch: 799628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	8.33	8.79	J	ug/Kg		106	58 - 150
Silvex (2,4,5-TP)	8.33	9.43	J	ug/Kg		113	58 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	114		65 - 150				
2,4-Dichlorophenylacetic acid	111		65 - 150				

Lab Sample ID: LCSD 460-799564/3-A

Matrix: Solid

Analysis Batch: 799628

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799564

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	8.33	9.41	J	ug/Kg		113	58 - 150	7	30
Silvex (2,4,5-TP)	8.33	10.3	J	ug/Kg		123	58 - 150	8	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	116		65 - 150						
2,4-Dichlorophenylacetic acid	112		65 - 150						

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 799628

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799564

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	39	U	9.81	10.5	J	ug/Kg	✱	107	58 - 150
Silvex (2,4,5-TP)	39	U	9.81	12.1	J	ug/Kg	✱	123	58 - 150
Surrogate	MS %Recovery	MS Qualifier	Limits						
2,4-Dichlorophenylacetic acid	116		65 - 150						
2,4-Dichlorophenylacetic acid	114		65 - 150						

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 460-241982-5 MSD

Matrix: Solid

Analysis Batch: 799628

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799564

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	39	U	9.81	10.8	J	ug/Kg	☼	110	58 - 150	2	30
Silvex (2,4,5-TP)	39	U	9.81	12.5	J	ug/Kg	☼	128	58 - 150	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
2,4-Dichlorophenylacetic acid	118		65 - 150								
2,4-Dichlorophenylacetic acid	117		65 - 150								

Lab Sample ID: MB 460-799565/1-A

Matrix: Solid

Analysis Batch: 800026

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799565

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/03/21 00:14	09/07/21 10:04	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/03/21 00:14	09/07/21 10:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	90		65 - 150				09/03/21 00:14	09/07/21 10:04	1
2,4-Dichlorophenylacetic acid	97		65 - 150				09/03/21 00:14	09/07/21 10:04	1

Lab Sample ID: LCS 460-799565/2-A

Matrix: Solid

Analysis Batch: 800026

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799565

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Silvex (2,4,5-TP)	8.33	9.36	J	ug/Kg		112	58 - 150		
Silvex (2,4,5-TP)	8.33	8.13	J	ug/Kg		98	58 - 150		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
2,4-Dichlorophenylacetic acid	99		65 - 150						
2,4-Dichlorophenylacetic acid	114		65 - 150						

Lab Sample ID: LCSD 460-799565/3-A

Matrix: Solid

Analysis Batch: 800026

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799565

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	8.33	11.2	J	ug/Kg		135	58 - 150	18	30
Silvex (2,4,5-TP)	8.33	9.52	J	ug/Kg		114	58 - 150	16	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	106		65 - 150						
2,4-Dichlorophenylacetic acid	119		65 - 150						

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 800026

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799565

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	38	U	9.53	18.0	J *	ug/Kg	☼	189	58 - 150
Silvex (2,4,5-TP)	38	U	9.53	10.4	J p	ug/Kg	☼	110	58 - 150
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
2,4-Dichlorophenylacetic acid	123		65 - 150						
2,4-Dichlorophenylacetic acid	117		65 - 150						

Lab Sample ID: 460-241982-9 MSD

Matrix: Solid

Analysis Batch: 800026

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799565

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	38	U	9.53	14.0	J	ug/Kg	☼	147	58 - 150	25	30
Silvex (2,4,5-TP)	38	U	9.53	5.75	J p *	ug/Kg	☼	60	58 - 150	58	30
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
2,4-Dichlorophenylacetic acid	127		65 - 150								
2,4-Dichlorophenylacetic acid	118		65 - 150								

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-167742/1-A

Matrix: Water

Analysis Batch: 168140

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 167742

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluoroheptanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorooctanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorononanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorodecanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorotridecanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorotetradecanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorohexanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorooctanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
NEtFOSAA	3.00	U	3.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
NMeFOSAA	2.00	U	2.00	0.60	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluoroheptanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorodecanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorooctanesulfonamide	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorobutanoic acid	5.00	U	5.00	2.00	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluoroundecanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluorododecanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1
6:2 Fluorotelomer sulfonic acid	5.00	U	5.00	2.00	ng/L		09/03/21 07:46	09/06/21 01:24	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	1.00	ng/L		09/03/21 07:46	09/06/21 01:24	1
Perfluoropentanoic acid	2.00	U	2.00	0.50	ng/L		09/03/21 07:46	09/06/21 01:24	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-8:2 FTS	133		34 - 182	09/03/21 07:46	09/06/21 01:24	1
M2-6:2 FTS	128		29 - 189	09/03/21 07:46	09/06/21 01:24	1
13C5 PFHxA	116		31 - 142	09/03/21 07:46	09/06/21 01:24	1
13C4 PFHpA	113		30 - 144	09/03/21 07:46	09/06/21 01:24	1
13C8 PFOA	122		49 - 127	09/03/21 07:46	09/06/21 01:24	1
13C9 PFNA	128		47 - 136	09/03/21 07:46	09/06/21 01:24	1
13C6 PFDA	127		47 - 128	09/03/21 07:46	09/06/21 01:24	1
13C7 PFUnA	131		40 - 135	09/03/21 07:46	09/06/21 01:24	1
13C2-PFDoDA	123		28 - 136	09/03/21 07:46	09/06/21 01:24	1
13C2 PFTeDA	125		10 - 144	09/03/21 07:46	09/06/21 01:24	1
13C3 PFBS	150		19 - 178	09/03/21 07:46	09/06/21 01:24	1
13C3 PFHxS	121		32 - 145	09/03/21 07:46	09/06/21 01:24	1
13C8 PFOS	133	*	49 - 126	09/03/21 07:46	09/06/21 01:24	1
d3-NMeFOSAA	140		32 - 151	09/03/21 07:46	09/06/21 01:24	1
d5-NEtFOSAA	133		37 - 164	09/03/21 07:46	09/06/21 01:24	1
13C8 FOSA	97		10 - 143	09/03/21 07:46	09/06/21 01:24	1
13C4 PFBA	116		41 - 132	09/03/21 07:46	09/06/21 01:24	1
13C5 PFPeA	121		33 - 155	09/03/21 07:46	09/06/21 01:24	1

Lab Sample ID: LCS 410-167742/2-A

Matrix: Water

Analysis Batch: 168140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 167742

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.6	21.47		ng/L		84	66 - 137
Perfluoroheptanoic acid	25.6	21.48		ng/L		84	66 - 141
Perfluorooctanoic acid	25.6	19.89		ng/L		78	65 - 136
Perfluorononanoic acid	25.6	21.54		ng/L		84	65 - 140
Perfluorodecanoic acid	25.6	20.18		ng/L		79	63 - 137
Perfluorotridecanoic acid	25.6	21.37		ng/L		83	58 - 146
Perfluorotetradecanoic acid	25.6	21.79		ng/L		85	64 - 141
Perfluorobutanesulfonic acid	22.7	16.19		ng/L		71	65 - 132
Perfluorohexanesulfonic acid	23.3	18.72		ng/L		80	60 - 128
Perfluorooctanesulfonic acid	23.7	18.85		ng/L		80	51 - 126
NEtFOSAA	25.6	19.63		ng/L		77	54 - 134
NMeFOSAA	25.6	20.44		ng/L		80	58 - 143
Perfluoroheptanesulfonic acid	24.4	17.19		ng/L		71	67 - 135
Perfluorodecanesulfonic acid	24.7	17.35		ng/L		70	61 - 134
Perfluorooctanesulfonamide	25.6	18.64		ng/L		73	55 - 130
Perfluorobutanoic acid	25.6	18.69		ng/L		73	62 - 156
Perfluoroundecanoic acid	25.6	21.28		ng/L		83	62 - 138
Perfluorododecanoic acid	25.6	20.57		ng/L		80	63 - 140
6:2 Fluorotelomer sulfonic acid	24.3	20.00		ng/L		82	57 - 137
8:2 Fluorotelomer sulfonic acid	24.5	18.86		ng/L		77	56 - 140
Perfluoropentanoic acid	25.6	19.87		ng/L		78	72 - 139

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	128		34 - 182
M2-6:2 FTS	121		29 - 189
13C5 PFHxA	107		31 - 142
13C4 PFHpA	109		30 - 144
13C8 PFOA	116		49 - 127

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-167742/2-A

Matrix: Water

Analysis Batch: 168140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 167742

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C9 PFNA	126		47 - 136
13C6 PFDA	129	*	47 - 128
13C7 PFUnA	131		40 - 135
13C2-PFDoDA	126		28 - 136
13C2 PFTeDA	122		10 - 144
13C3 PFBS	151		19 - 178
13C3 PFHxS	120		32 - 145
13C8 PFOS	134	*	49 - 126
d3-NMeFOSAA	137		32 - 151
d5-NEtFOSAA	132		37 - 164
13C8 FOSA	94		10 - 143
13C4 PFBA	111		41 - 132
13C5 PFPeA	113		33 - 155

Lab Sample ID: LCSD 410-167742/3-A

Matrix: Water

Analysis Batch: 168140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 167742

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Perfluorohexanoic acid	25.6	22.29		ng/L		87	66 - 137	4		30
Perfluoroheptanoic acid	25.6	21.90		ng/L		86	66 - 141	2		30
Perfluorooctanoic acid	25.6	20.78		ng/L		81	65 - 136	4		30
Perfluorononanoic acid	25.6	21.48		ng/L		84	65 - 140	0		30
Perfluorodecanoic acid	25.6	20.37		ng/L		80	63 - 137	1		30
Perfluorotridecanoic acid	25.6	21.41		ng/L		84	58 - 146	0		30
Perfluorotetradecanoic acid	25.6	22.61		ng/L		88	64 - 141	4		30
Perfluorobutanesulfonic acid	22.7	16.44		ng/L		73	65 - 132	2		30
Perfluorohexanesulfonic acid	23.3	19.30		ng/L		83	60 - 128	3		30
Perfluorooctanesulfonic acid	23.7	18.47		ng/L		78	51 - 126	2		30
NEtFOSAA	25.6	19.93		ng/L		78	54 - 134	1		30
NMeFOSAA	25.6	18.45		ng/L		72	58 - 143	10		30
Perfluoroheptanesulfonic acid	24.4	18.32		ng/L		75	67 - 135	6		30
Perfluorodecanesulfonic acid	24.7	16.21		ng/L		66	61 - 134	7		30
Perfluorooctanesulfonamide	25.6	19.10		ng/L		75	55 - 130	2		30
Perfluorobutanoic acid	25.6	19.43		ng/L		76	62 - 156	4		30
Perfluoroundecanoic acid	25.6	20.78		ng/L		81	62 - 138	2		30
Perfluorododecanoic acid	25.6	18.83		ng/L		74	63 - 140	9		30
6:2 Fluorotelomer sulfonic acid	24.3	17.83		ng/L		73	57 - 137	11		30
8:2 Fluorotelomer sulfonic acid	24.5	17.29		ng/L		71	56 - 140	9		30
Perfluoropentanoic acid	25.6	18.94		ng/L		74	72 - 139	5		30

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	141		34 - 182
M2-6:2 FTS	142		29 - 189
13C5 PFHxA	126		31 - 142
13C4 PFHpA	127		30 - 144
13C8 PFOA	142	*	49 - 127
13C9 PFNA	137	*	47 - 136
13C6 PFDA	132	*	47 - 128

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-167742/3-A

Matrix: Water

Analysis Batch: 168140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 167742

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C7 PFUnA	139	*	40 - 135
13C2-PFDoDA	136		28 - 136
13C2 PFTeDA	124		10 - 144
13C3 PFBS	161		19 - 178
13C3 PFHxS	133		32 - 145
13C8 PFOS	138	*	49 - 126
d3-NMeFOSAA	156	*	32 - 151
d5-NEtFOSAA	145		37 - 164
13C8 FOSA	106		10 - 143
13C4 PFBA	124		41 - 132
13C5 PFPeA	134		33 - 155

Lab Sample ID: MB 410-167784/1-B

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 167784

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		09/03/21 08:39	09/05/21 22:07	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 08:39	09/05/21 22:07	1

Isotope Dilution	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-8:2 FTS	109		10 - 178	09/03/21 08:39	09/05/21 22:07	1
M2-6:2 FTS	111		10 - 182	09/03/21 08:39	09/05/21 22:07	1
13C5 PFHxA	100		11 - 138	09/03/21 08:39	09/05/21 22:07	1
13C4 PFHpA	103		15 - 139	09/03/21 08:39	09/05/21 22:07	1
13C8 PFOA	110		21 - 133	09/03/21 08:39	09/05/21 22:07	1
13C9 PFNA	105		15 - 145	09/03/21 08:39	09/05/21 22:07	1
13C6 PFDA	105		21 - 134	09/03/21 08:39	09/05/21 22:07	1
13C7 PFUnA	98		15 - 138	09/03/21 08:39	09/05/21 22:07	1
13C2-PFDoDA	100		28 - 126	09/03/21 08:39	09/05/21 22:07	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-167784/1-B

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 167784

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	97		10 - 138	09/03/21 08:39	09/05/21 22:07	1
13C3 PFBS	117		23 - 130	09/03/21 08:39	09/05/21 22:07	1
13C3 PFHxS	104		24 - 136	09/03/21 08:39	09/05/21 22:07	1
13C8 PFOS	105		31 - 130	09/03/21 08:39	09/05/21 22:07	1
d3-NMeFOSAA	82		10 - 172	09/03/21 08:39	09/05/21 22:07	1
d5-NEtFOSAA	86		10 - 176	09/03/21 08:39	09/05/21 22:07	1
13C8 FOSA	90		25 - 135	09/03/21 08:39	09/05/21 22:07	1
13C4 PFBA	100		12 - 137	09/03/21 08:39	09/05/21 22:07	1
13C5 PFPeA	107		12 - 135	09/03/21 08:39	09/05/21 22:07	1

Lab Sample ID: LCS 410-167784/2-B

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 167784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.0	24.37		ug/Kg		97	61 - 147
Perfluoroheptanoic acid	25.0	25.70		ug/Kg		103	61 - 151
Perfluorooctanoic acid	25.0	24.71		ug/Kg		99	62 - 144
Perfluorononanoic acid	25.0	26.22		ug/Kg		105	62 - 148
Perfluorodecanoic acid	25.0	25.73		ug/Kg		103	62 - 142
Perfluorotridecanoic acid	25.0	28.79		ug/Kg		115	57 - 152
Perfluorotetradecanoic acid	25.0	26.99		ug/Kg		108	60 - 147
Perfluorobutanesulfonic acid	22.1	20.31		ug/Kg		92	62 - 137
Perfluorohexanesulfonic acid	22.8	23.67		ug/Kg		104	57 - 135
Perfluorooctanesulfonic acid	23.1	22.62		ug/Kg		98	48 - 134
NEtFOSAA	25.0	22.56		ug/Kg		90	50 - 140
NMeFOSAA	25.0	24.87		ug/Kg		99	53 - 149
Perfluoroheptanesulfonic acid	23.8	22.45		ug/Kg		94	67 - 138
Perfluorodecanesulfonic acid	24.1	21.76		ug/Kg		90	60 - 142
Perfluorooctanesulfonamide	25.0	23.83		ug/Kg		95	52 - 132
Perfluorobutanoic acid	25.0	24.12		ug/Kg		96	50 - 185
Perfluoroundecanoic acid	25.0	27.06		ug/Kg		108	62 - 144
Perfluorododecanoic acid	25.0	29.18		ug/Kg		117	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	21.03		ug/Kg		89	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	24.53		ug/Kg		102	50 - 147
Perfluoropentanoic acid	25.0	25.44		ug/Kg		102	69 - 144

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-8:2 FTS	99		10 - 178
M2-6:2 FTS	108		10 - 182
13C5 PFHxA	101		11 - 138
13C4 PFHpA	102		15 - 139
13C8 PFOA	101		21 - 133
13C9 PFNA	94		15 - 145
13C6 PFDA	95		21 - 134
13C7 PFUnA	90		15 - 138
13C2-PFDoDA	87		28 - 126
13C2 PFTeDA	93		10 - 138
13C3 PFBS	110		23 - 130

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-167784/2-B

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 167784

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C3 PFHxS	103		24 - 136
13C8 PFOS	99		31 - 130
d3-NMeFOSAA	85		10 - 172
d5-NEtFOSAA	93		10 - 176
13C8 FOSA	87		25 - 135
13C4 PFBA	95		12 - 137
13C5 PFPeA	99		12 - 135

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 167784

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Perfluorohexanoic acid	0.65	U	27.0	26.71		ug/Kg	✱	99	61 - 147
Perfluoroheptanoic acid	0.65	U	27.0	28.95		ug/Kg	✱	107	61 - 151
Perfluorooctanoic acid	0.65	U	27.0	26.30		ug/Kg	✱	97	62 - 144
Perfluorononanoic acid	0.65	U	27.0	27.57		ug/Kg	✱	102	62 - 148
Perfluorodecanoic acid	0.65	U	27.0	28.84		ug/Kg	✱	107	62 - 142
Perfluorotridecanoic acid	0.65	U	27.0	28.73		ug/Kg	✱	106	57 - 152
Perfluorotetradecanoic acid	0.65	U	27.0	28.85		ug/Kg	✱	107	60 - 147
Perfluorobutanesulfonic acid	2.18	U	23.9	20.77		ug/Kg	✱	87	62 - 137
Perfluorohexanesulfonic acid	0.65	U	24.6	25.07		ug/Kg	✱	102	57 - 135
Perfluorooctanesulfonic acid	0.30	J	25.0	24.75		ug/Kg	✱	98	48 - 134
NEtFOSAA	2.18	U	27.0	25.91		ug/Kg	✱	96	50 - 140
NMeFOSAA	2.18	U	27.0	28.24		ug/Kg	✱	105	53 - 149
Perfluoroheptanesulfonic acid	0.65	U	25.7	24.25		ug/Kg	✱	94	67 - 138
Perfluorodecanesulfonic acid	0.65	U	26.0	26.42		ug/Kg	✱	102	60 - 142
Perfluorooctanesulfonamide	0.65	U	27.0	28.10		ug/Kg	✱	104	52 - 132
Perfluorobutanoic acid	2.18	U	27.0	24.97		ug/Kg	✱	92	50 - 185
Perfluoroundecanoic acid	0.65	U	27.0	27.54		ug/Kg	✱	102	62 - 144
Perfluorododecanoic acid	0.65	U	27.0	28.65		ug/Kg	✱	106	60 - 147
6:2 Fluorotelomer sulfonic acid	2.18	U	25.6	23.36		ug/Kg	✱	91	53 - 137
8:2 Fluorotelomer sulfonic acid	3.27	U	25.9	26.45		ug/Kg	✱	102	50 - 147
Perfluoropentanoic acid	0.65	U	27.0	26.26		ug/Kg	✱	97	69 - 144

Isotope Dilution	MS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	92		10 - 178
M2-6:2 FTS	96		10 - 182
13C5 PFHxA	88		11 - 138
13C4 PFHpA	88		15 - 139
13C8 PFOA	93		21 - 133
13C9 PFNA	93		15 - 145
13C6 PFDA	88		21 - 134
13C7 PFUnA	95		15 - 138
13C2-PFDoDA	89		28 - 126
13C2 PFTeDA	91		10 - 138
13C3 PFBS	107		23 - 130
13C3 PFHxS	92		24 - 136
13C8 PFOS	94		31 - 130

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 167784

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
d3-NMeFOSAA	59		10 - 172
d5-NEtFOSAA	67		10 - 176
13C8 FOSA	88		25 - 135
13C4 PFBA	88		12 - 137
13C5 PFPeA	95		12 - 135

Lab Sample ID: 460-241982-5 MSD

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 167784

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Perfluorohexanoic acid	0.65	U	27.0	28.48		ug/Kg	⊛	105	61 - 147	6	30
Perfluoroheptanoic acid	0.65	U	27.0	25.58		ug/Kg	⊛	95	61 - 151	12	30
Perfluorooctanoic acid	0.65	U	27.0	25.90		ug/Kg	⊛	96	62 - 144	2	30
Perfluorononanoic acid	0.65	U	27.0	28.36		ug/Kg	⊛	105	62 - 148	3	30
Perfluorodecanoic acid	0.65	U	27.0	29.29		ug/Kg	⊛	108	62 - 142	2	30
Perfluorotridecanoic acid	0.65	U	27.0	28.36		ug/Kg	⊛	105	57 - 152	1	30
Perfluorotetradecanoic acid	0.65	U	27.0	29.20		ug/Kg	⊛	108	60 - 147	1	30
Perfluorobutanesulfonic acid	2.18	U	23.9	20.49		ug/Kg	⊛	86	62 - 137	1	30
Perfluorohexanesulfonic acid	0.65	U	24.6	23.04		ug/Kg	⊛	94	57 - 135	8	30
Perfluorooctanesulfonic acid	0.30	J	25.0	25.84		ug/Kg	⊛	102	48 - 134	4	30
NEtFOSAA	2.18	U	27.0	25.91		ug/Kg	⊛	96	50 - 140	0	30
NMeFOSAA	2.18	U	27.0	26.88		ug/Kg	⊛	100	53 - 149	5	30
Perfluoroheptanesulfonic acid	0.65	U	25.7	21.82		ug/Kg	⊛	85	67 - 138	11	30
Perfluorodecanesulfonic acid	0.65	U	26.0	23.60		ug/Kg	⊛	91	60 - 142	11	30
Perfluorooctanesulfonamide	0.65	U	27.0	26.72		ug/Kg	⊛	99	52 - 132	5	30
Perfluorobutanoic acid	2.18	U	27.0	25.60		ug/Kg	⊛	95	50 - 185	2	30
Perfluoroundecanoic acid	0.65	U	27.0	28.39		ug/Kg	⊛	105	62 - 144	3	30
Perfluorododecanoic acid	0.65	U	27.0	28.46		ug/Kg	⊛	105	60 - 147	1	30
6:2 Fluorotelomer sulfonic acid	2.18	U	25.6	22.35		ug/Kg	⊛	87	53 - 137	4	30
8:2 Fluorotelomer sulfonic acid	3.27	U	25.9	28.97		ug/Kg	⊛	112	50 - 147	9	30
Perfluoropentanoic acid	0.65	U	27.0	29.47		ug/Kg	⊛	109	69 - 144	11	30

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
M2-8:2 FTS	91		10 - 178
M2-6:2 FTS	96		10 - 182
13C5 PFHxA	85		11 - 138
13C4 PFHpA	97		15 - 139
13C8 PFOA	92		21 - 133
13C9 PFNA	91		15 - 145
13C6 PFDA	89		21 - 134
13C7 PFUnA	92		15 - 138
13C2-PFDoDA	90		28 - 126
13C2 PFTeDA	90		10 - 138
13C3 PFBS	100		23 - 130
13C3 PFHxS	100		24 - 136
13C8 PFOS	92		31 - 130
d3-NMeFOSAA	79		10 - 172
d5-NEtFOSAA	85		10 - 176

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-241982-5 MSD

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 167784

Isotope Dilution	MSD		Limits
	%Recovery	Qualifier	
13C8 FOSA	88		25 - 135
13C4 PFBA	85		12 - 137
13C5 PFPeA	86		12 - 135

Lab Sample ID: MB 410-167873/1-B

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 167873

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		09/03/21 11:51	09/05/21 17:42	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		09/03/21 11:51	09/05/21 17:42	1

Isotope Dilution	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-8:2 FTS	112		10 - 178	09/03/21 11:51	09/05/21 17:42	1
M2-6:2 FTS	110		10 - 182	09/03/21 11:51	09/05/21 17:42	1
13C5 PFHxA	94		11 - 138	09/03/21 11:51	09/05/21 17:42	1
13C4 PFHpA	95		15 - 139	09/03/21 11:51	09/05/21 17:42	1
13C8 PFOA	108		21 - 133	09/03/21 11:51	09/05/21 17:42	1
13C9 PFNA	107		15 - 145	09/03/21 11:51	09/05/21 17:42	1
13C6 PFDA	107		21 - 134	09/03/21 11:51	09/05/21 17:42	1
13C7 PFUnA	110		15 - 138	09/03/21 11:51	09/05/21 17:42	1
13C2-PFDoDA	105		28 - 126	09/03/21 11:51	09/05/21 17:42	1
13C2 PFTeDA	102		10 - 138	09/03/21 11:51	09/05/21 17:42	1
13C3 PFBS	126		23 - 130	09/03/21 11:51	09/05/21 17:42	1
13C3 PFHxS	95		24 - 136	09/03/21 11:51	09/05/21 17:42	1
13C8 PFOS	112		31 - 130	09/03/21 11:51	09/05/21 17:42	1
d3-NMeFOSAA	98		10 - 172	09/03/21 11:51	09/05/21 17:42	1
d5-NEtFOSAA	98		10 - 176	09/03/21 11:51	09/05/21 17:42	1
13C8 FOSA	86		25 - 135	09/03/21 11:51	09/05/21 17:42	1
13C4 PFBA	100		12 - 137	09/03/21 11:51	09/05/21 17:42	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-167873/1-B

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 167873

Isotope Dilution	MB MB %Recovery	Qualifier	Limits
13C5 PFPeA	107		12 - 135

Prepared	Analyzed	Dil Fac
09/03/21 11:51	09/05/21 17:42	1

Lab Sample ID: LCS 410-167873/2-B

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 167873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorohexanoic acid	25.0	24.62		ug/Kg		98	61 - 147
Perfluoroheptanoic acid	25.0	25.70		ug/Kg		103	61 - 151
Perfluorooctanoic acid	25.0	22.39		ug/Kg		90	62 - 144
Perfluorononanoic acid	25.0	27.58		ug/Kg		110	62 - 148
Perfluorodecanoic acid	25.0	28.00		ug/Kg		112	62 - 142
Perfluorotridecanoic acid	25.0	25.97		ug/Kg		104	57 - 152
Perfluorotetradecanoic acid	25.0	26.86		ug/Kg		107	60 - 147
Perfluorobutanesulfonic acid	22.1	18.91		ug/Kg		85	62 - 137
Perfluorohexanesulfonic acid	22.8	23.06		ug/Kg		101	57 - 135
Perfluorooctanesulfonic acid	23.1	22.95		ug/Kg		99	48 - 134
NEtFOSAA	25.0	23.93		ug/Kg		96	50 - 140
NMeFOSAA	25.0	24.20		ug/Kg		97	53 - 149
Perfluoroheptanesulfonic acid	23.8	23.40		ug/Kg		98	67 - 138
Perfluorodecanesulfonic acid	24.1	22.49		ug/Kg		93	60 - 142
Perfluorooctanesulfonamide	25.0	24.78		ug/Kg		99	52 - 132
Perfluorobutanoic acid	25.0	23.39		ug/Kg		94	50 - 185
Perfluoroundecanoic acid	25.0	24.81		ug/Kg		99	62 - 144
Perfluorododecanoic acid	25.0	25.48		ug/Kg		102	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	20.74		ug/Kg		88	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	26.82		ug/Kg		112	50 - 147
Perfluoropentanoic acid	25.0	25.43		ug/Kg		102	69 - 144

Isotope Dilution	LCS LCS %Recovery	Qualifier	Limits
M2-8:2 FTS	103		10 - 178
M2-6:2 FTS	107		10 - 182
13C5 PFHxA	100		11 - 138
13C4 PFHpA	98		15 - 139
13C8 PFOA	111		21 - 133
13C9 PFNA	107		15 - 145
13C6 PFDA	108		21 - 134
13C7 PFUnA	115		15 - 138
13C2-PFDoDA	110		28 - 126
13C2 PFTeDA	105		10 - 138
13C3 PFBS	121		23 - 130
13C3 PFHxS	99		24 - 136
13C8 PFOS	109		31 - 130
d3-NMeFOSAA	100		10 - 172
d5-NEtFOSAA	106		10 - 176
13C8 FOSA	97		25 - 135
13C4 PFBA	104		12 - 137
13C5 PFPeA	114		12 - 135

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 167873

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	0.69	U	28.6	27.22		ug/Kg	✱	95	61 - 147
Perfluoroheptanoic acid	0.69	U	28.6	29.74		ug/Kg	✱	104	61 - 151
Perfluorooctanoic acid	0.69	U	28.6	27.87		ug/Kg	✱	98	62 - 144
Perfluorononanoic acid	0.69	U	28.6	32.27		ug/Kg	✱	113	62 - 148
Perfluorodecanoic acid	0.69	U	28.6	29.46		ug/Kg	✱	103	62 - 142
Perfluorotridecanoic acid	0.69	U	28.6	29.99		ug/Kg	✱	105	57 - 152
Perfluorotetradecanoic acid	0.69	U	28.6	31.68		ug/Kg	✱	111	60 - 147
Perfluorobutanesulfonic acid	2.29	U	25.3	22.15		ug/Kg	✱	88	62 - 137
Perfluorohexanesulfonic acid	0.69	U	26.1	26.19		ug/Kg	✱	100	57 - 135
Perfluorooctanesulfonic acid	0.23	J	26.5	26.94		ug/Kg	✱	102	48 - 134
NEtFOSAA	2.29	U	28.6	27.96		ug/Kg	✱	98	50 - 140
NMeFOSAA	2.29	U	28.6	30.17		ug/Kg	✱	106	53 - 149
Perfluoroheptanesulfonic acid	0.69	U	27.2	26.00		ug/Kg	✱	96	67 - 138
Perfluorodecanesulfonic acid	0.69	U	27.6	27.70		ug/Kg	✱	101	60 - 142
Perfluorooctanesulfonamide	0.69	U	28.6	29.09		ug/Kg	✱	102	52 - 132
Perfluorobutanoic acid	2.29	U	28.6	27.58		ug/Kg	✱	96	50 - 185
Perfluoroundecanoic acid	0.69	U	28.6	32.37		ug/Kg	✱	113	62 - 144
Perfluorododecanoic acid	0.69	U	28.6	31.81		ug/Kg	✱	111	60 - 147
6:2 Fluorotelomer sulfonic acid	2.29	U	27.1	23.66		ug/Kg	✱	87	53 - 137
8:2 Fluorotelomer sulfonic acid	3.43	U	27.4	27.57		ug/Kg	✱	101	50 - 147
Perfluoropentanoic acid	0.69	U	28.6	29.19		ug/Kg	✱	102	69 - 144

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
M2-8:2 FTS	93		10 - 178
M2-6:2 FTS	103		10 - 182
13C5 PFHxA	95		11 - 138
13C4 PFHpA	95		15 - 139
13C8 PFOA	100		21 - 133
13C9 PFNA	89		15 - 145
13C6 PFDA	90		21 - 134
13C7 PFUnA	85		15 - 138
13C2-PFDoDA	87		28 - 126
13C2 PFTeDA	86		10 - 138
13C3 PFBS	108		23 - 130
13C3 PFHxS	97		24 - 136
13C8 PFOS	89		31 - 130
d3-NMeFOSAA	71		10 - 172
d5-NEtFOSAA	77		10 - 176
13C8 FOSA	86		25 - 135
13C4 PFBA	88		12 - 137
13C5 PFPeA	96		12 - 135

Lab Sample ID: 460-241982-9 MSD

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 167873

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Perfluorohexanoic acid	0.69	U	27.2	24.88		ug/Kg	✱	91	61 - 147	9	30
Perfluoroheptanoic acid	0.69	U	27.2	26.27		ug/Kg	✱	96	61 - 151	12	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-241982-9 MSD

Matrix: Solid

Analysis Batch: 168179

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 167873

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanoic acid	0.69	U	27.2	25.00		ug/Kg	✱	92	62 - 144	11	30
Perfluorononanoic acid	0.69	U	27.2	28.12		ug/Kg	✱	103	62 - 148	14	30
Perfluorodecanoic acid	0.69	U	27.2	28.95		ug/Kg	✱	106	62 - 142	2	30
Perfluorotridecanoic acid	0.69	U	27.2	26.93		ug/Kg	✱	99	57 - 152	11	30
Perfluorotetradecanoic acid	0.69	U	27.2	28.97		ug/Kg	✱	106	60 - 147	9	30
Perfluorobutanesulfonic acid	2.29	U	24.1	20.98		ug/Kg	✱	87	62 - 137	5	30
Perfluorohexanesulfonic acid	0.69	U	24.8	24.32		ug/Kg	✱	98	57 - 135	7	30
Perfluorooctanesulfonic acid	0.23	J	25.2	24.72		ug/Kg	✱	98	48 - 134	9	30
NEtFOSAA	2.29	U	27.2	26.13		ug/Kg	✱	96	50 - 140	7	30
NMeFOSAA	2.29	U	27.2	27.81		ug/Kg	✱	102	53 - 149	8	30
Perfluoroheptanesulfonic acid	0.69	U	25.9	23.64		ug/Kg	✱	91	67 - 138	10	30
Perfluorodecanesulfonic acid	0.69	U	26.2	23.68		ug/Kg	✱	90	60 - 142	16	30
Perfluorooctanesulfonamide	0.69	U	27.2	28.29		ug/Kg	✱	104	52 - 132	3	30
Perfluorobutanoic acid	2.29	U	27.2	25.37		ug/Kg	✱	93	50 - 185	8	30
Perfluoroundecanoic acid	0.69	U	27.2	27.88		ug/Kg	✱	102	62 - 144	15	30
Perfluorododecanoic acid	0.69	U	27.2	28.15		ug/Kg	✱	103	60 - 147	12	30
6:2 Fluorotelomer sulfonic acid	2.29	U	25.8	21.13		ug/Kg	✱	82	53 - 137	11	30
8:2 Fluorotelomer sulfonic acid	3.43	U	26.1	27.53		ug/Kg	✱	106	50 - 147	0	30
Perfluoropentanoic acid	0.69	U	27.2	26.44		ug/Kg	✱	97	69 - 144	10	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
M2-8:2 FTS	97		10 - 178
M2-6:2 FTS	104		10 - 182
13C5 PFHxA	92		11 - 138
13C4 PFHpA	94		15 - 139
13C8 PFOA	96		21 - 133
13C9 PFNA	95		15 - 145
13C6 PFDA	95		21 - 134
13C7 PFUnA	99		15 - 138
13C2-PFDoDA	99		28 - 126
13C2 PFTeDA	97		10 - 138
13C3 PFBS	110		23 - 130
13C3 PFHxS	94		24 - 136
13C8 PFOS	93		31 - 130
d3-NMeFOSAA	70		10 - 172
d5-NEtFOSAA	77		10 - 176
13C8 FOSA	94		25 - 135
13C4 PFBA	89		12 - 137
13C5 PFPeA	97		12 - 135

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-799818/1-A

Matrix: Water

Analysis Batch: 800062

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799818

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.0	U	2.0	0.29	ug/L		09/04/21 10:04	09/07/21 18:51	1
Arsenic	2.0	U	2.0	0.89	ug/L		09/04/21 10:04	09/07/21 18:51	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-799818/1-A

Matrix: Water

Analysis Batch: 800062

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799818

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	4.0	U	4.0	0.91	ug/L		09/04/21 10:04	09/07/21 18:51	1
Beryllium	0.80	U	0.80	0.13	ug/L		09/04/21 10:04	09/07/21 18:51	1
Cadmium	2.0	U	2.0	0.39	ug/L		09/04/21 10:04	09/07/21 18:51	1
Chromium	4.0	U	4.0	2.5	ug/L		09/04/21 10:04	09/07/21 18:51	1
Copper	4.0	U	4.0	2.5	ug/L		09/04/21 10:04	09/07/21 18:51	1
Manganese	8.0	U	8.0	1.5	ug/L		09/04/21 10:04	09/07/21 18:51	1
Nickel	4.0	U	4.0	0.91	ug/L		09/04/21 10:04	09/07/21 18:51	1
Lead	1.2	U	1.2	0.84	ug/L		09/04/21 10:04	09/07/21 18:51	1
Selenium	2.5	U	2.5	0.59	ug/L		09/04/21 10:04	09/07/21 18:51	1
Zinc	16.0	U	16.0	6.5	ug/L		09/04/21 10:04	09/07/21 18:51	1

Lab Sample ID: LCS 460-799818/2-A

Matrix: Water

Analysis Batch: 800062

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.0	26.86		ug/L		107	80 - 120
Arsenic	50.0	54.78		ug/L		110	80 - 120
Barium	50.0	50.99		ug/L		102	80 - 120
Beryllium	25.0	25.44		ug/L		102	80 - 120
Cadmium	25.0	25.93		ug/L		104	80 - 120
Chromium	50.0	53.24		ug/L		106	80 - 120
Copper	50.0	56.44		ug/L		113	80 - 120
Manganese	250	273.3		ug/L		109	80 - 120
Nickel	50.0	57.13		ug/L		114	80 - 120
Lead	25.0	27.35		ug/L		109	80 - 120
Selenium	50.0	52.98		ug/L		106	80 - 120
Zinc	250	270.4		ug/L		108	80 - 120

Lab Sample ID: 460-242075-F-1-D MS

Matrix: Water

Analysis Batch: 800062

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799818

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	2.0	U	25.0	27.16		ug/L		109	75 - 125
Arsenic	2.0	U	50.0	54.13		ug/L		108	75 - 125
Barium	79.8		50.0	134.1		ug/L		109	75 - 125
Beryllium	0.80	U	25.0	26.21		ug/L		105	75 - 125
Cadmium	2.0	U	25.0	26.14		ug/L		105	75 - 125
Chromium	4.0	U	50.0	54.90		ug/L		110	75 - 125
Copper	4.0	U	50.0	58.26		ug/L		117	75 - 125
Manganese	975		250	1268		ug/L		117	75 - 125
Nickel	13.9		50.0	70.89		ug/L		114	75 - 125
Lead	1.2	U	25.0	27.89		ug/L		112	75 - 125
Selenium	5.6		50.0	59.76		ug/L		108	75 - 125
Zinc	16.0	U	250	277.1		ug/L		111	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-242075-B-1-A DU
Matrix: Water
Analysis Batch: 800062

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 799818

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Silver	2.0	U	2.0	U	ug/L		NC	20
Arsenic	2.0	U	2.0	U	ug/L		NC	20
Barium	79.8		78.76		ug/L		1	20
Beryllium	0.80	U	0.80	U	ug/L		NC	20
Cadmium	2.0	U	2.0	U	ug/L		NC	20
Chromium	4.0	U	4.0	U	ug/L		NC	20
Copper	4.0	U	4.0	U	ug/L		NC	20
Manganese	975		969.4		ug/L		0.6	20
Nickel	13.9		14.36		ug/L		3	20
Lead	1.2	U	1.2	U	ug/L		NC	20
Selenium	5.6		4.76		ug/L		17	20
Zinc	16.0	U	16.0	U	ug/L		NC	20

Lab Sample ID: MB 460-800143/1-A
Matrix: Solid
Analysis Batch: 800227

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 800143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Barium	2.0	U	2.0	0.15	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Chromium	2.0	U	2.0	0.17	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Copper	2.0	U	2.0	0.22	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Manganese	4.0	U	4.0	0.40	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Nickel	2.0	U	2.0	0.19	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Lead	0.60	U	0.60	0.20	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Selenium	1.3	U	1.3	0.12	mg/Kg		09/08/21 04:22	09/08/21 09:40	1
Zinc	8.0	U	8.0	2.3	mg/Kg		09/08/21 04:22	09/08/21 09:40	1

Lab Sample ID: LCSSRM 460-800143/2-A ^5
Matrix: Solid
Analysis Batch: 800227

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 800143

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Silver	33.6	21.32		mg/Kg		63.5	48.2 - 73.5
Arsenic	140	151.6		mg/Kg		108.3	82.9 - 117.9
Barium	202	216.9		mg/Kg		107.4	81.2 - 118.3
Beryllium	42.6	43.07		mg/Kg		101.1	81.0 - 119.0
Cadmium	97.9	106.4		mg/Kg		108.7	80.0 - 119.5
Chromium	60.4	64.16		mg/Kg		106.2	80.3 - 119.7
Copper	122	131.3		mg/Kg		107.6	82.8 - 117.2
Manganese	457	495.2		mg/Kg		108.4	79.6 - 120.6

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-800143/2-A ^5

Matrix: Solid

Analysis Batch: 800227

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800143

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	151	168.4		mg/Kg		111.6	79.5 - 121.2
Lead	56.7	60.81		mg/Kg		107.2	82.9 - 116.9
Selenium	35.5	40.15		mg/Kg		113.1	77.5 - 122.3
Zinc	186	199.6		mg/Kg		107.3	79.0 - 121.0

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 800227

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 800143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	1.2	U	5.89	6.07		mg/Kg	⚡	103	75 - 125
Arsenic	0.80	J	11.8	13.20		mg/Kg	⚡	105	75 - 125
Barium	11.6		11.8	27.57	N	mg/Kg	⚡	135	75 - 125
Beryllium	0.16	J	5.89	5.61		mg/Kg	⚡	93	75 - 125
Cadmium	1.2	U	5.89	6.02		mg/Kg	⚡	102	75 - 125
Chromium	8.4		11.8	21.15		mg/Kg	⚡	109	75 - 125
Copper	6.2		11.8	21.00	N	mg/Kg	⚡	126	75 - 125
Manganese	95.7		58.9	231.3	N	mg/Kg	⚡	230	75 - 125
Nickel	6.7		11.8	22.12	N	mg/Kg	⚡	131	75 - 125
Lead	2.7		5.89	11.33	N	mg/Kg	⚡	146	75 - 125
Selenium	1.5	U	11.8	11.72		mg/Kg	⚡	100	75 - 125
Zinc	12.0		58.9	78.09		mg/Kg	⚡	112	75 - 125

Lab Sample ID: 460-241982-5 DU

Matrix: Solid

Analysis Batch: 800227

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 800143

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.2	U	1.2	U	mg/Kg	⚡	NC	20
Arsenic	0.80	J	0.914	J	mg/Kg	⚡	14	20
Barium	11.6		13.70		mg/Kg	⚡	16	20
Beryllium	0.16	J	0.184	J	mg/Kg	⚡	15	20
Cadmium	1.2	U	1.2	U	mg/Kg	⚡	NC	20
Chromium	8.4		8.48		mg/Kg	⚡	1	20
Copper	6.2		7.99		mg/Kg	⚡	26	20
Manganese	95.7		133.6	*	mg/Kg	⚡	33	20
Nickel	6.7		9.18	*	mg/Kg	⚡	31	20
Lead	2.7		5.41	*	mg/Kg	⚡	66	20
Selenium	1.5	U	1.5	U	mg/Kg	⚡	NC	20
Zinc	12.0		15.82		mg/Kg	⚡	27	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-800346/1-A

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800346

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Barium	2.0	U	2.0	0.15	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Chromium	2.0	U	2.0	0.17	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Copper	2.0	U	2.0	0.22	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Manganese	4.0	U	4.0	0.40	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Nickel	2.0	U	2.0	0.19	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Lead	0.60	U	0.60	0.20	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Selenium	1.3	U	1.3	0.12	mg/Kg		09/09/21 04:07	09/09/21 09:39	1
Zinc	8.0	U	8.0	2.3	mg/Kg		09/09/21 04:07	09/09/21 09:39	1

Lab Sample ID: LCSSRM 460-800346/2-A ^5

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800346

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Silver	33.6	20.42		mg/Kg		60.8	48.2 - 73.5
Arsenic	140	148.0		mg/Kg		105.7	82.9 - 117.9
Barium	202	219.4		mg/Kg		108.6	81.2 - 118.3
Beryllium	42.6	42.31		mg/Kg		99.3	81.0 - 119.0
Cadmium	97.9	105.6		mg/Kg		107.9	80.0 - 119.5
Chromium	60.4	64.13		mg/Kg		106.2	80.3 - 119.7
Copper	122	127.6		mg/Kg		104.6	82.8 - 117.2
Manganese	457	482.0		mg/Kg		105.5	79.6 - 120.6
Nickel	151	165.1		mg/Kg		109.4	79.5 - 121.2
Lead	56.7	60.05		mg/Kg		105.9	82.9 - 116.9
Selenium	35.5	37.85		mg/Kg		106.6	77.5 - 122.3
Zinc	186	196.3		mg/Kg		105.5	79.0 - 121.0

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 800346

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	1.1	U	5.72	5.62		mg/Kg	☼	98	75 - 125
Arsenic	1.1		11.4	12.25		mg/Kg	☼	97	75 - 125
Barium	16.4		11.4	22.78	N	mg/Kg	☼	56	75 - 125
Beryllium	0.23	J	5.72	5.87		mg/Kg	☼	99	75 - 125
Cadmium	1.1	U	5.72	5.56		mg/Kg	☼	97	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 800346

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	11.6		11.4	23.33		mg/Kg	✱	102	75 - 125
Copper	6.6		11.4	17.93		mg/Kg	✱	99	75 - 125
Manganese	76.0		57.2	126.5		mg/Kg	✱	88	75 - 125
Nickel	6.8		11.4	17.22		mg/Kg	✱	91	75 - 125
Lead	3.5		5.72	8.80		mg/Kg	✱	93	75 - 125
Selenium	1.4	U	11.4	11.05		mg/Kg	✱	97	75 - 125
Zinc	16.2		57.2	69.34		mg/Kg	✱	93	75 - 125

Lab Sample ID: 460-241982-9 DU

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 800346

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.1	U	1.1	U	mg/Kg	✱	NC	20
Arsenic	1.1		1.22		mg/Kg	✱	6	20
Barium	16.4		15.32		mg/Kg	✱	7	20
Beryllium	0.23	J	0.261	J	mg/Kg	✱	12	20
Cadmium	1.1	U	1.1	U	mg/Kg	✱	NC	20
Chromium	11.6		11.93		mg/Kg	✱	3	20
Copper	6.6		6.74		mg/Kg	✱	2	20
Manganese	76.0		76.33		mg/Kg	✱	0.5	20
Nickel	6.8		6.72		mg/Kg	✱	2	20
Lead	3.5		3.58		mg/Kg	✱	3	20
Selenium	1.4	U	1.4	U	mg/Kg	✱	NC	20
Zinc	16.2		16.11		mg/Kg	✱	0.5	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-800055/1-A

Matrix: Water

Analysis Batch: 800084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		09/07/21 12:24	09/07/21 13:43	1

Lab Sample ID: LCS 460-800055/2-A

Matrix: Water

Analysis Batch: 800084

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	1.02		ug/L		102	80 - 120

Lab Sample ID: 460-242075-F-1-F MS

Matrix: Water

Analysis Batch: 800084

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 800055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.20	U	1.00	1.03		ug/L		103	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 460-242075-B-1-B DU
Matrix: Water
Analysis Batch: 800084

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 800055

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.20	U	0.20	U	ug/L		NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-799583/1-A
Matrix: Solid
Analysis Batch: 799652

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 799583

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0040	mg/Kg		09/03/21 03:44	09/03/21 08:07	1

Lab Sample ID: LCSSRM 460-799583/2-A ^40
Matrix: Solid
Analysis Batch: 799652

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 799583

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	16.5	16.41		mg/Kg		99.4	74.5 - 124.8

Lab Sample ID: 460-241982-5 MS
Matrix: Solid
Analysis Batch: 799652

Client Sample ID: 042_LB-47-15-16
Prep Type: Total/NA
Prep Batch: 799583

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.020	U	0.0965	0.0928		mg/Kg	✱	96	80 - 120

Lab Sample ID: 460-241982-5 DU
Matrix: Solid
Analysis Batch: 799652

Client Sample ID: 042_LB-47-15-16
Prep Type: Total/NA
Prep Batch: 799583

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.020	U	0.020	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-799589/1-A
Matrix: Solid
Analysis Batch: 799652

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 799589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0040	mg/Kg		09/03/21 04:02	09/03/21 08:57	1

Lab Sample ID: LCSSRM 460-799589/2-A ^40
Matrix: Solid
Analysis Batch: 799652

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 799589

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	16.5	16.05		mg/Kg		97.3	74.5 - 124.8

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 799652

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799589

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.017	U	0.0853	0.0823		mg/Kg	✱	96	80 - 120

Lab Sample ID: 460-241982-9 DU

Matrix: Solid

Analysis Batch: 799652

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799589

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.017	U	0.017	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-799944/10-A

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0040	mg/Kg		09/07/21 03:10	09/07/21 06:28	1

Lab Sample ID: LCSSRM 460-799944/11-A ^40

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799944

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	16.5	16.51		mg/Kg		100.1	74.5 - 124.8

Lab Sample ID: 460-242206-C-4-D MS

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799944

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.062		0.0925	0.152		mg/Kg	✱	98	80 - 120

Lab Sample ID: 460-242206-C-4-C DU

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 799944

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.062		0.0638		mg/Kg	✱	4	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-799829/9

Matrix: Water

Analysis Batch: 799829

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	10.0	U	10.0	8.1	ug/L			09/04/21 09:45	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSSRM 460-799829/10

Matrix: Water

Analysis Batch: 799829

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	79.4	77.87		ug/L		98.1	84.1 - 114.4

Lab Sample ID: MB 460-800065/1-A

Matrix: Solid

Analysis Batch: 800263

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800065

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/07/21 14:44	09/08/21 12:00	1

Lab Sample ID: LCSi 460-800065/3-A

Matrix: Solid

Analysis Batch: 800263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800065

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	623.4		mg/Kg		88	80 - 120

Lab Sample ID: LCSSRM 460-800065/2-A

Matrix: Solid

Analysis Batch: 800263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800065

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	12.37		mg/Kg		100.3	84.0 - 114.6

Lab Sample ID: 460-241982-5 MSI

Matrix: Solid

Analysis Batch: 800263

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 800065

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.4	U	834	745.3		mg/Kg	✱	89	75 - 125

Lab Sample ID: 460-241982-5 MSS

Matrix: Solid

Analysis Batch: 800263

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 800065

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.4	U	47.1	43.95		mg/Kg	✱	93	75 - 125

Lab Sample ID: 460-241982-5 DU

Matrix: Solid

Analysis Batch: 800263

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 800065

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.4	U	2.4	U	mg/Kg	✱	NC	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: MB 460-800633/1-A

Matrix: Solid

Analysis Batch: 800651

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/10/21 12:29	09/10/21 16:00	1

Lab Sample ID: LCS1 460-800633/3-A

Matrix: Solid

Analysis Batch: 800651

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800633

Analyte	Spike Added	LCS1 Result	LCS1 Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	631.1		mg/Kg		89	80 - 120

Lab Sample ID: LCSSRM 460-800633/2-A

Matrix: Solid

Analysis Batch: 800651

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800633

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	12.53		mg/Kg		101.5	84.0 - 114.6

Lab Sample ID: 460-241982-18 MSI

Matrix: Solid

Analysis Batch: 800651

Client Sample ID: 055_LB-34-5-7

Prep Type: Total/NA

Prep Batch: 800633

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.1	U	738	667.9		mg/Kg	✱	91	75 - 125

Lab Sample ID: 460-241982-18 MSS

Matrix: Solid

Analysis Batch: 800651

Client Sample ID: 055_LB-34-5-7

Prep Type: Total/NA

Prep Batch: 800633

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.1	U	41.7	39.34		mg/Kg	✱	94	75 - 125

Lab Sample ID: 460-241982-18 DU

Matrix: Solid

Analysis Batch: 800651

Client Sample ID: 055_LB-34-5-7

Prep Type: Total/NA

Prep Batch: 800633

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.1	U	2.1	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-801691/1-A

Matrix: Solid

Analysis Batch: 801922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 801691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/16/21 18:20	09/17/21 21:55	1

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSI 460-801691/3-A
Matrix: Solid
Analysis Batch: 801922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 801691

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	659.8		mg/Kg		93	80 - 120

Lab Sample ID: LCSSRM 460-801691/2-A
Matrix: Solid
Analysis Batch: 801922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 801691

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	11.06		mg/Kg		89.6	84.0 - 114.6

Lab Sample ID: LCSSRM 460-801691/4-A
Matrix: Solid
Analysis Batch: 801922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 801691

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	154	79.60		mg/Kg		51.7	21.2 - 120.1

Lab Sample ID: 460-241982-9 MSI
Matrix: Solid
Analysis Batch: 801922

Client Sample ID: 046_LB-27-15-16
Prep Type: Total/NA
Prep Batch: 801691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.3	U	810	696.1		mg/Kg	✱	86	75 - 125

Lab Sample ID: 460-241982-9 MSS
Matrix: Solid
Analysis Batch: 801922

Client Sample ID: 046_LB-27-15-16
Prep Type: Total/NA
Prep Batch: 801691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.3	U	45.7	40.34		mg/Kg	✱	88	75 - 125

Lab Sample ID: 460-241982-9 DU
Matrix: Solid
Analysis Batch: 801922

Client Sample ID: 046_LB-27-15-16
Prep Type: Total/NA
Prep Batch: 801691

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.3	U	2.3	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-801694/1-A
Matrix: Solid
Analysis Batch: 801883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 801694

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/16/21 19:45	09/17/21 14:00	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS1 460-801694/3-A
Matrix: Solid
Analysis Batch: 801883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 801694

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	656.4		mg/Kg		93	80 - 120

Lab Sample ID: LCSSRM 460-801694/2-A
Matrix: Solid
Analysis Batch: 801883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 801694

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	11.49		mg/Kg		93.2	84.0 - 114.6

Lab Sample ID: 460-241499-A-14-H MSS
Matrix: Solid
Analysis Batch: 801883

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 801694

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.2	U	44.8	2.2	U N	mg/Kg	✱	1	75 - 125

Lab Sample ID: 460-241499-A-14-I MSI
Matrix: Solid
Analysis Batch: 801883

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 801694

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.2	U	793	233.4	N	mg/Kg	✱	29	75 - 125

Lab Sample ID: 460-241499-A-14-G DU
Matrix: Solid
Analysis Batch: 801883

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 801694

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.2	U	2.2	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-803453/1-A
Matrix: Solid
Analysis Batch: 803492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 803453

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/25/21 11:10	09/26/21 17:54	1

Lab Sample ID: LCS1 460-803453/3-A
Matrix: Solid
Analysis Batch: 803492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 803453

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	694.5		mg/Kg		98	80 - 120

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSSRM 460-803453/2-A
Matrix: Solid
Analysis Batch: 803492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 803453

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	11.58		mg/Kg		93.8	84.0 - 114.6

Lab Sample ID: LCSSRM 460-803453/4-A
Matrix: Solid
Analysis Batch: 803492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 803453

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	131	112.6		mg/Kg		85.9	61.3 - 138.2

Lab Sample ID: 460-241499-A-14-L MSS
Matrix: Solid
Analysis Batch: 803492

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 803453

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.2	U	44.8	3.85	N	mg/Kg	✱	9	75 - 125

Lab Sample ID: 460-241499-A-14-M MSI
Matrix: Solid
Analysis Batch: 803492

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 803453

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.2	U	793	333.0	N	mg/Kg	✱	42	75 - 125

Lab Sample ID: 460-241499-A-14-K DU
Matrix: Solid
Analysis Batch: 803492

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 803453

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.2	U	2.2	U	mg/Kg	✱	NC	20

Lab Sample ID: 460-242163-E-1 MS
Matrix: Water
Analysis Batch: 799829

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	17.9		30.0	47.90		ug/L		100	85 - 115

Lab Sample ID: 460-242163-E-1 DU
Matrix: Water
Analysis Batch: 799829

Client Sample ID: Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	17.9		15.71		ug/L		13	20

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-799763/1-A

Matrix: Water

Analysis Batch: 799930

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799763

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		09/03/21 23:17	09/05/21 13:46	1

Lab Sample ID: LCS 460-799763/2-A

Matrix: Water

Analysis Batch: 799930

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799763

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.0962		mg/L		96	85 - 115

Lab Sample ID: 460-242075-D-1-C MSD

Matrix: Water

Analysis Batch: 799930

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799763

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Cyanide, Total	0.010	U	0.200	0.220		mg/L		110	90 - 110	4	28

Lab Sample ID: 460-242075-D-1-E MS

Matrix: Water

Analysis Batch: 799930

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799763

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.010	U	0.200	0.229	N	mg/L		115	90 - 110

Lab Sample ID: MB 460-799927/2-A

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799927

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		09/05/21 14:10	09/06/21 19:03	1

Lab Sample ID: LCSSRM 460-799927/3-A ^20

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799927

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	95.3	60.96		mg/Kg		64.0	23.7 - 123.8

Lab Sample ID: MRL 460-799927/1-A

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799927

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.0100	0.0134		mg/L		134	50 - 150

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 460-241982-5 MS

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.28	U	5.23	4.71		mg/Kg	✱	90	11 - 108

Lab Sample ID: 460-241982-5 MSD

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799927

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Cyanide, Total	0.28	U	5.23	5.99	N	mg/Kg	✱	115	11 - 108	24	40

Lab Sample ID: 460-241982-9 MS

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.26	U	5.49	5.85		mg/Kg	✱	106	11 - 108

Lab Sample ID: 460-241982-9 MSD

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799927

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Cyanide, Total	0.26	U	5.49	6.12	N	mg/Kg	✱	111	11 - 108	5	40

Lab Sample ID: MB 460-799931/1-A

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		09/05/21 15:08	09/06/21 19:32	1

Lab Sample ID: LCSSRM 460-799931/2-A ^20

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	95.3	71.52		mg/Kg		75.0	23.7 - 123.8

Lab Sample ID: 460-241982-21 MS

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: 058_LB-45-11-13

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.34	U	6.52	6.49		mg/Kg	✱	99	11 - 108

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 460-241982-21 MSD

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: 058_LB-45-11-13

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.34	U	6.28	5.71		mg/Kg	☆	91	11 - 108	13	40

Method: Moisture - Percent Moisture

Lab Sample ID: 460-241982-5 DU

Matrix: Solid

Analysis Batch: 799646

Client Sample ID: 042_LB-47-15-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	15.1		15.1		%		0	20
Percent Solids	84.9		84.9		%		0	20

Lab Sample ID: 460-241982-9 DU

Matrix: Solid

Analysis Batch: 799646

Client Sample ID: 046_LB-27-15-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	12.6		12.6		%		0	20
Percent Solids	87.4		87.4		%		0	20

Lab Sample ID: 460-241982-20 DU

Matrix: Solid

Analysis Batch: 799646

Client Sample ID: 057_LB-46-15-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	24.8		25.0		%		0.8	20
Percent Solids	75.2		75.0		%		0.3	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC/MS VOA

Prep Batch: 799435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-12	049_LB-31-5-7	Total/NA	Solid	5035	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	5035	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	5035	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	5035	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	5035	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	5035	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	5035	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	5035	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	5035	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	5035	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	5035	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	5035	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	5035	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	5035	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	5035	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	5035	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	5035	

Analysis Batch: 799504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-12	049_LB-31-5-7	Total/NA	Solid	8260D	799435
460-241982-13	050_LB-31-15-16	Total/NA	Solid	8260D	799435
460-241982-14	051_LB-32-5-7	Total/NA	Solid	8260D	799435
460-241982-15	052_LB-32-15-16	Total/NA	Solid	8260D	799435
460-241982-16	053_LB-33-5-7	Total/NA	Solid	8260D	799435
460-241982-17	054_LB-33-15-16	Total/NA	Solid	8260D	799435
460-241982-18	055_LB-34-5-7	Total/NA	Solid	8260D	799435
460-241982-20	057_LB-46-15-16	Total/NA	Solid	8260D	799435
460-241982-22	059_LB-45-15-16	Total/NA	Solid	8260D	799435
460-241982-23	060_LB-44-8-10	Total/NA	Solid	8260D	799435
460-241982-24	061_LB-44-15-16	Total/NA	Solid	8260D	799435
460-241982-26	063_LB-43-15-16	Total/NA	Solid	8260D	799435
MB 460-799504/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-799504/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-799504/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 799587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-19	056_LB-34-15-16	Total/NA	Solid	8260D	799435
460-241982-21	058_LB-45-11-13	Total/NA	Solid	8260D	799435
460-241982-25	062_LB-43-9-11	Total/NA	Solid	8260D	799435
460-241982-27	064_LB-42-5-7	Total/NA	Solid	8260D	799435
460-241982-28	065_LB-42-15-16	Total/NA	Solid	8260D	799435
MB 460-799587/7	Method Blank	Total/NA	Solid	8260D	
LCS 460-799587/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-799587/4	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 799733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-29	066_TB-2B	Total/NA	Water	8260D	
460-241982-30	067_FB-2	Total/NA	Water	8260D	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC/MS VOA (Continued)

Analysis Batch: 799733 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-31	068_FB-3	Total/NA	Water	8260D	
460-241982-32	069_FB-4	Total/NA	Water	8260D	
MB 460-799733/8	Method Blank	Total/NA	Water	8260D	
LCS 460-799733/4	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 799782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-799782/8	Method Blank	Total/NA	Water	8260D	
LCS 460-799782/5	Lab Control Sample	Total/NA	Water	8260D	
460-241937-B-8 MS	Matrix Spike	Total/NA	Water	8260D	
460-241937-B-8 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 799242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	3510C	
460-241982-31	068_FB-3	Total/NA	Water	3510C	
460-241982-32	069_FB-4	Total/NA	Water	3510C	
MB 460-799242/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-799242/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-799242/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-241844-J-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	
460-241844-P-1-B MS	Matrix Spike	Total/NA	Water	3510C	

Analysis Batch: 799369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	8270E	799454
460-241982-31	068_FB-3	Total/NA	Water	8270E	799454
460-241982-32	069_FB-4	Total/NA	Water	8270E	799454
MB 460-799454/1-A	Method Blank	Total/NA	Water	8270E	799454
LCS 460-799454/2-A	Lab Control Sample	Total/NA	Water	8270E	799454
LCSD 460-799454/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	799454
460-242026-E-2-D MS	Matrix Spike	Total/NA	Water	8270E	799454
460-242026-E-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	8270E	799454

Analysis Batch: 799453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	8270E SIM ID	799242
460-241982-31	068_FB-3	Total/NA	Water	8270E SIM ID	799242
460-241982-32	069_FB-4	Total/NA	Water	8270E SIM ID	799242
MB 460-799242/1-A	Method Blank	Total/NA	Water	8270E SIM ID	799242
LCS 460-799242/2-A	Lab Control Sample	Total/NA	Water	8270E SIM ID	799242
LCSD 460-799242/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM ID	799242
460-241844-J-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270E SIM ID	799242
460-241844-P-1-B MS	Matrix Spike	Total/NA	Water	8270E SIM ID	799242

Prep Batch: 799454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	3510C	
460-241982-31	068_FB-3	Total/NA	Water	3510C	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC/MS Semi VOA (Continued)

Prep Batch: 799454 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-32	069_FB-4	Total/NA	Water	3510C	
MB 460-799454/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-799454/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-799454/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-242026-E-2-D MS	Matrix Spike	Total/NA	Water	3510C	
460-242026-E-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Prep Batch: 799464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	3546	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	3546	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	3546	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	3546	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	3546	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	3546	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	3546	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	3546	
MB 460-799464/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799464/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799464/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	3546	
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	3546	

Prep Batch: 799466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	3546	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	3546	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	3546	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	3546	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	3546	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	3546	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	3546	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	3546	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	3546	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	3546	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	3546	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	3546	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	3546	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	3546	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	3546	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	3546	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	3546	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	3546	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	3546	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	3546	
MB 460-799466/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799466/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799466/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	3546	
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC/MS Semi VOA

Analysis Batch: 799528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	8270E	799466
460-241982-10	047_HS-1-8-10	Total/NA	Solid	8270E	799466
460-241982-11	048_HS-1-10-12	Total/NA	Solid	8270E	799466
460-241982-12	049_LB-31-5-7	Total/NA	Solid	8270E	799466
460-241982-13	050_LB-31-15-16	Total/NA	Solid	8270E	799466
460-241982-14	051_LB-32-5-7	Total/NA	Solid	8270E	799466
460-241982-15	052_LB-32-15-16	Total/NA	Solid	8270E	799466
460-241982-16	053_LB-33-5-7	Total/NA	Solid	8270E	799466
460-241982-17	054_LB-33-15-16	Total/NA	Solid	8270E	799466
460-241982-18	055_LB-34-5-7	Total/NA	Solid	8270E	799466
460-241982-19	056_LB-34-15-16	Total/NA	Solid	8270E	799466
460-241982-20	057_LB-46-15-16	Total/NA	Solid	8270E	799466
460-241982-21	058_LB-45-11-13	Total/NA	Solid	8270E	799466
460-241982-22	059_LB-45-15-16	Total/NA	Solid	8270E	799466
460-241982-23	060_LB-44-8-10	Total/NA	Solid	8270E	799466
460-241982-24	061_LB-44-15-16	Total/NA	Solid	8270E	799466
460-241982-25	062_LB-43-9-11	Total/NA	Solid	8270E	799466
460-241982-26	063_LB-43-15-16	Total/NA	Solid	8270E	799466
460-241982-27	064_LB-42-5-7	Total/NA	Solid	8270E	799466
460-241982-28	065_LB-42-15-16	Total/NA	Solid	8270E	799466
MB 460-799466/1-A	Method Blank	Total/NA	Solid	8270E	799466
LCS 460-799466/2-A	Lab Control Sample	Total/NA	Solid	8270E	799466
LCSD 460-799466/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	799466
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	8270E	799466
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	8270E	799466

Analysis Batch: 799531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	8270E	799464
460-241982-2	039_LB-49-15-16	Total/NA	Solid	8270E	799464
460-241982-3	040_LB-48-5-7	Total/NA	Solid	8270E	799464
460-241982-4	041_LB-48-15-16	Total/NA	Solid	8270E	799464
460-241982-5	042_LB-47-15-16	Total/NA	Solid	8270E	799464
460-241982-6	043_HS-2-8-10	Total/NA	Solid	8270E	799464
460-241982-7	044_HS-2-10-12	Total/NA	Solid	8270E	799464
460-241982-8	045_LB-27-6-8	Total/NA	Solid	8270E	799464
MB 460-799464/1-A	Method Blank	Total/NA	Solid	8270E	799464
LCS 460-799464/2-A	Lab Control Sample	Total/NA	Solid	8270E	799464
LCSD 460-799464/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	799464
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	8270E	799464
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	8270E	799464

GC Semi VOA

Analysis Batch: 799389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	8081B	799434
460-241982-31	068_FB-3	Total/NA	Water	8081B	799434
460-241982-32	069_FB-4	Total/NA	Water	8081B	799434
MB 460-799434/1-A	Method Blank	Total/NA	Water	8081B	799434
LCS 460-799434/2-A	Lab Control Sample	Total/NA	Water	8081B	799434

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC Semi VOA (Continued)

Analysis Batch: 799389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 460-799434/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	799434
460-241934-H-4-B MS	Matrix Spike	Total/NA	Water	8081B	799434
460-241934-I-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	8081B	799434

Analysis Batch: 799400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	8082A	799432
460-241982-31	068_FB-3	Total/NA	Water	8082A	799432
460-241982-32	069_FB-4	Total/NA	Water	8082A	799432
MB 460-799432/1-A	Method Blank	Total/NA	Water	8082A	799432
460-241934-I-4-A MS	Matrix Spike	Total/NA	Water	8082A	799432
460-241934-J-4-A MSD	Matrix Spike Duplicate	Total/NA	Water	8082A	799432

Prep Batch: 799432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	3510C	
460-241982-31	068_FB-3	Total/NA	Water	3510C	
460-241982-32	069_FB-4	Total/NA	Water	3510C	
MB 460-799432/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-799432/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-799432/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-241934-I-4-A MS	Matrix Spike	Total/NA	Water	3510C	
460-241934-J-4-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Prep Batch: 799434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	3510C	
460-241982-31	068_FB-3	Total/NA	Water	3510C	
460-241982-32	069_FB-4	Total/NA	Water	3510C	
MB 460-799434/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-799434/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-799434/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-241934-H-4-B MS	Matrix Spike	Total/NA	Water	3510C	
460-241934-I-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Prep Batch: 799522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	3546	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	3546	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	3546	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	3546	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	3546	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	3546	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	3546	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	3546	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	3546	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	3546	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	3546	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	3546	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	3546	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC Semi VOA (Continued)

Prep Batch: 799522 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-16	053_LB-33-5-7	Total/NA	Solid	3546	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	3546	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	3546	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	3546	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	3546	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	3546	
MB 460-799522/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799522/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799522/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	3546	
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	3546	

Prep Batch: 799523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	3546	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	3546	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	3546	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	3546	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	3546	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	3546	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	3546	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	3546	
MB 460-799523/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799523/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799523/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	3546	
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	3546	

Prep Batch: 799533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	3546	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	3546	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	3546	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	3546	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	3546	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	3546	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	3546	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	3546	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	3546	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	3546	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	3546	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	3546	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	3546	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	3546	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	3546	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	3546	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	3546	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	3546	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	3546	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	3546	
MB 460-799533/1-A	Method Blank	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC Semi VOA (Continued)

Prep Batch: 799533 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-799533/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799533/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	3546	
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	3546	

Prep Batch: 799534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	3546	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	3546	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	3546	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	3546	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	3546	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	3546	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	3546	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	3546	
MB 460-799534/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799534/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799534/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	3546	
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	3546	

Prep Batch: 799563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	8151A	
460-241982-31	068_FB-3	Total/NA	Water	8151A	
460-241982-32	069_FB-4	Total/NA	Water	8151A	
MB 460-799563/1-A	Method Blank	Total/NA	Water	8151A	
LCS 460-799563/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 460-799563/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Prep Batch: 799564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	8151A	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	8151A	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	8151A	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	8151A	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	8151A	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	8151A	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	8151A	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	8151A	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	8151A	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	8151A	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	8151A	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	8151A	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	8151A	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	8151A	
MB 460-799564/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-799564/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-799564/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	8151A	
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	8151A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC Semi VOA

Prep Batch: 799565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	8151A	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	8151A	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	8151A	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	8151A	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	8151A	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	8151A	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	8151A	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	8151A	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	8151A	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	8151A	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	8151A	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	8151A	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	8151A	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	8151A	
MB 460-799565/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-799565/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-799565/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	8151A	
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	8151A	

Analysis Batch: 799571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-6	043_HS-2-8-10	Total/NA	Solid	8081B	799533
460-241982-7	044_HS-2-10-12	Total/NA	Solid	8081B	799533
460-241982-8	045_LB-27-6-8	Total/NA	Solid	8081B	799533
460-241982-10	047_HS-1-8-10	Total/NA	Solid	8081B	799533
460-241982-11	048_HS-1-10-12	Total/NA	Solid	8081B	799533
460-241982-12	049_LB-31-5-7	Total/NA	Solid	8081B	799533
460-241982-13	050_LB-31-15-16	Total/NA	Solid	8081B	799533
460-241982-14	051_LB-32-5-7	Total/NA	Solid	8081B	799533
460-241982-15	052_LB-32-15-16	Total/NA	Solid	8081B	799533
460-241982-16	053_LB-33-5-7	Total/NA	Solid	8081B	799533
460-241982-17	054_LB-33-15-16	Total/NA	Solid	8081B	799533
460-241982-18	055_LB-34-5-7	Total/NA	Solid	8081B	799533
460-241982-19	056_LB-34-15-16	Total/NA	Solid	8081B	799533
460-241982-20	057_LB-46-15-16	Total/NA	Solid	8081B	799533
460-241982-21	058_LB-45-11-13	Total/NA	Solid	8081B	799533
460-241982-25	062_LB-43-9-11	Total/NA	Solid	8081B	799534
460-241982-26	063_LB-43-15-16	Total/NA	Solid	8081B	799534

Analysis Batch: 799574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	8081B	799533
460-241982-2	039_LB-49-15-16	Total/NA	Solid	8081B	799533
460-241982-3	040_LB-48-5-7	Total/NA	Solid	8081B	799533
460-241982-4	041_LB-48-15-16	Total/NA	Solid	8081B	799533
460-241982-5	042_LB-47-15-16	Total/NA	Solid	8081B	799533
460-241982-28	065_LB-42-15-16	Total/NA	Solid	8081B	799534
MB 460-799533/1-A	Method Blank	Total/NA	Solid	8081B	799533
LCS 460-799533/2-A	Lab Control Sample	Total/NA	Solid	8081B	799533
LCSD 460-799533/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	799533

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC Semi VOA (Continued)

Analysis Batch: 799574 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	8081B	799533
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	8081B	799533

Analysis Batch: 799577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	8081B	799534
460-241982-22	059_LB-45-15-16	Total/NA	Solid	8081B	799534
460-241982-23	060_LB-44-8-10	Total/NA	Solid	8081B	799534
460-241982-24	061_LB-44-15-16	Total/NA	Solid	8081B	799534
460-241982-27	064_LB-42-5-7	Total/NA	Solid	8081B	799534
MB 460-799534/1-A	Method Blank	Total/NA	Solid	8081B	799534
LCS 460-799534/2-A	Lab Control Sample	Total/NA	Solid	8081B	799534
LCSD 460-799534/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	799534
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	8081B	799534
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	8081B	799534

Analysis Batch: 799593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	8082A	799522
460-241982-2	039_LB-49-15-16	Total/NA	Solid	8082A	799522
460-241982-3	040_LB-48-5-7	Total/NA	Solid	8082A	799522
460-241982-4	041_LB-48-15-16	Total/NA	Solid	8082A	799522
460-241982-5	042_LB-47-15-16	Total/NA	Solid	8082A	799522
460-241982-6	043_HS-2-8-10	Total/NA	Solid	8082A	799522
460-241982-7	044_HS-2-10-12	Total/NA	Solid	8082A	799522
460-241982-8	045_LB-27-6-8	Total/NA	Solid	8082A	799522
460-241982-10	047_HS-1-8-10	Total/NA	Solid	8082A	799522
460-241982-11	048_HS-1-10-12	Total/NA	Solid	8082A	799522
460-241982-12	049_LB-31-5-7	Total/NA	Solid	8082A	799522
460-241982-13	050_LB-31-15-16	Total/NA	Solid	8082A	799522
460-241982-14	051_LB-32-5-7	Total/NA	Solid	8082A	799522
460-241982-15	052_LB-32-15-16	Total/NA	Solid	8082A	799522
460-241982-16	053_LB-33-5-7	Total/NA	Solid	8082A	799522
460-241982-17	054_LB-33-15-16	Total/NA	Solid	8082A	799522
460-241982-18	055_LB-34-5-7	Total/NA	Solid	8082A	799522
460-241982-19	056_LB-34-15-16	Total/NA	Solid	8082A	799522
460-241982-20	057_LB-46-15-16	Total/NA	Solid	8082A	799522
460-241982-21	058_LB-45-11-13	Total/NA	Solid	8082A	799522
MB 460-799522/1-A	Method Blank	Total/NA	Solid	8082A	799522
LCS 460-799522/2-A	Lab Control Sample	Total/NA	Solid	8082A	799522
LCSD 460-799522/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	799522
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	8082A	799522
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	8082A	799522

Analysis Batch: 799594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	8082A	799523
460-241982-22	059_LB-45-15-16	Total/NA	Solid	8082A	799523
460-241982-23	060_LB-44-8-10	Total/NA	Solid	8082A	799523
460-241982-24	061_LB-44-15-16	Total/NA	Solid	8082A	799523
460-241982-25	062_LB-43-9-11	Total/NA	Solid	8082A	799523

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC Semi VOA (Continued)

Analysis Batch: 799594 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-26	063_LB-43-15-16	Total/NA	Solid	8082A	799523
460-241982-27	064_LB-42-5-7	Total/NA	Solid	8082A	799523
460-241982-28	065_LB-42-15-16	Total/NA	Solid	8082A	799523
MB 460-799523/1-A	Method Blank	Total/NA	Solid	8082A	799523
LCS 460-799523/2-A	Lab Control Sample	Total/NA	Solid	8082A	799523
LCSD 460-799523/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	799523
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	8082A	799523
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	8082A	799523

Analysis Batch: 799628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	8151A	799564
460-241982-2	039_LB-49-15-16	Total/NA	Solid	8151A	799564
460-241982-3	040_LB-48-5-7	Total/NA	Solid	8151A	799564
460-241982-4	041_LB-48-15-16	Total/NA	Solid	8151A	799564
460-241982-5	042_LB-47-15-16	Total/NA	Solid	8151A	799564
460-241982-6	043_HS-2-8-10	Total/NA	Solid	8151A	799564
460-241982-7	044_HS-2-10-12	Total/NA	Solid	8151A	799564
460-241982-8	045_LB-27-6-8	Total/NA	Solid	8151A	799564
460-241982-10	047_HS-1-8-10	Total/NA	Solid	8151A	799564
460-241982-11	048_HS-1-10-12	Total/NA	Solid	8151A	799564
460-241982-12	049_LB-31-5-7	Total/NA	Solid	8151A	799564
460-241982-13	050_LB-31-15-16	Total/NA	Solid	8151A	799564
460-241982-14	051_LB-32-5-7	Total/NA	Solid	8151A	799564
460-241982-15	052_LB-32-15-16	Total/NA	Solid	8151A	799564
MB 460-799563/1-A	Method Blank	Total/NA	Water	8151A	799563
MB 460-799564/1-A	Method Blank	Total/NA	Solid	8151A	799564
LCS 460-799563/2-A	Lab Control Sample	Total/NA	Water	8151A	799563
LCS 460-799564/2-A	Lab Control Sample	Total/NA	Solid	8151A	799564
LCSD 460-799563/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	799563
LCSD 460-799564/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	799564
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	8151A	799564
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	8151A	799564

Analysis Batch: 799631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-799432/2-A	Lab Control Sample	Total/NA	Water	8082A	799432
LCSD 460-799432/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	799432

Analysis Batch: 799671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	8151A	799563
460-241982-31	068_FB-3	Total/NA	Water	8151A	799563
460-241982-32	069_FB-4	Total/NA	Water	8151A	799563

Analysis Batch: 800026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	8151A	799565
460-241982-16	053_LB-33-5-7	Total/NA	Solid	8151A	799565
460-241982-17	054_LB-33-15-16	Total/NA	Solid	8151A	799565
460-241982-18	055_LB-34-5-7	Total/NA	Solid	8151A	799565

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

GC Semi VOA (Continued)

Analysis Batch: 800026 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-19	056_LB-34-15-16	Total/NA	Solid	8151A	799565
460-241982-20	057_LB-46-15-16	Total/NA	Solid	8151A	799565
460-241982-21	058_LB-45-11-13	Total/NA	Solid	8151A	799565
460-241982-22	059_LB-45-15-16	Total/NA	Solid	8151A	799565
460-241982-23	060_LB-44-8-10	Total/NA	Solid	8151A	799565
460-241982-24	061_LB-44-15-16	Total/NA	Solid	8151A	799565
460-241982-25	062_LB-43-9-11	Total/NA	Solid	8151A	799565
460-241982-26	063_LB-43-15-16	Total/NA	Solid	8151A	799565
460-241982-27	064_LB-42-5-7	Total/NA	Solid	8151A	799565
460-241982-28	065_LB-42-15-16	Total/NA	Solid	8151A	799565
MB 460-799565/1-A	Method Blank	Total/NA	Solid	8151A	799565
LCS 460-799565/2-A	Lab Control Sample	Total/NA	Solid	8151A	799565
LCSD 460-799565/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	799565
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	8151A	799565
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	8151A	799565

LCMS

Prep Batch: 167742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	537 IDA	
460-241982-31	068_FB-3	Total/NA	Water	537 IDA	
460-241982-32	069_FB-4	Total/NA	Water	537 IDA	
MB 410-167742/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-167742/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-167742/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

Prep Batch: 167784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	SHAKE	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	SHAKE	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	SHAKE	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	SHAKE	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	SHAKE	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	SHAKE	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	SHAKE	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	SHAKE	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	SHAKE	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	SHAKE	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	SHAKE	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	SHAKE	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	SHAKE	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	SHAKE	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	SHAKE	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	SHAKE	
460-241982-18 - DL	055_LB-34-5-7	Total/NA	Solid	SHAKE	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	SHAKE	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	SHAKE	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	SHAKE	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	SHAKE	
MB 410-167784/1-B	Method Blank	Total/NA	Solid	SHAKE	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

LCMS (Continued)

Prep Batch: 167784 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-167784/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	SHAKE	
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	SHAKE	

Prep Batch: 167873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	SHAKE	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	SHAKE	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	SHAKE	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	SHAKE	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	SHAKE	
MB 410-167873/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-167873/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	SHAKE	
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	SHAKE	

Cleanup Batch: 167878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	Extract Aliquot	167784
460-241982-2	039_LB-49-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-3	040_LB-48-5-7	Total/NA	Solid	Extract Aliquot	167784
460-241982-4	041_LB-48-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-5	042_LB-47-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-6	043_HS-2-8-10	Total/NA	Solid	Extract Aliquot	167784
460-241982-7	044_HS-2-10-12	Total/NA	Solid	Extract Aliquot	167784
460-241982-8	045_LB-27-6-8	Total/NA	Solid	Extract Aliquot	167784
460-241982-10	047_HS-1-8-10	Total/NA	Solid	Extract Aliquot	167784
460-241982-11	048_HS-1-10-12	Total/NA	Solid	Extract Aliquot	167784
460-241982-12	049_LB-31-5-7	Total/NA	Solid	Extract Aliquot	167784
460-241982-13	050_LB-31-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-14	051_LB-32-5-7	Total/NA	Solid	Extract Aliquot	167784
460-241982-15	052_LB-32-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-16	053_LB-33-5-7	Total/NA	Solid	Extract Aliquot	167784
460-241982-17	054_LB-33-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-18 - DL	055_LB-34-5-7	Total/NA	Solid	Extract Aliquot	167784
460-241982-18	055_LB-34-5-7	Total/NA	Solid	Extract Aliquot	167784
460-241982-19	056_LB-34-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-20	057_LB-46-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-21	058_LB-45-11-13	Total/NA	Solid	Extract Aliquot	167784
MB 410-167784/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	167784
LCS 410-167784/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	167784
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	Extract Aliquot	167784
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	Extract Aliquot	167784

Cleanup Batch: 167925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	Extract Aliquot	167873
460-241982-22	059_LB-45-15-16	Total/NA	Solid	Extract Aliquot	167873
460-241982-24	061_LB-44-15-16	Total/NA	Solid	Extract Aliquot	167873
460-241982-26	063_LB-43-15-16	Total/NA	Solid	Extract Aliquot	167873
460-241982-28	065_LB-42-15-16	Total/NA	Solid	Extract Aliquot	167873

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

LCMS (Continued)

Cleanup Batch: 167925 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-167873/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	167873
LCS 410-167873/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	167873
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	Extract Aliquot	167873
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	Extract Aliquot	167873

Analysis Batch: 168140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	537 IDA	167742
460-241982-31	068_FB-3	Total/NA	Water	537 IDA	167742
460-241982-32	069_FB-4	Total/NA	Water	537 IDA	167742
MB 410-167742/1-A	Method Blank	Total/NA	Water	537 IDA	167742
LCS 410-167742/2-A	Lab Control Sample	Total/NA	Water	537 IDA	167742
LCSD 410-167742/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	167742

Analysis Batch: 168179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	537 IDA	167878
460-241982-2	039_LB-49-15-16	Total/NA	Solid	537 IDA	167878
460-241982-3	040_LB-48-5-7	Total/NA	Solid	537 IDA	167878
460-241982-4	041_LB-48-15-16	Total/NA	Solid	537 IDA	167878
460-241982-5	042_LB-47-15-16	Total/NA	Solid	537 IDA	167878
460-241982-6	043_HS-2-8-10	Total/NA	Solid	537 IDA	167878
460-241982-7	044_HS-2-10-12	Total/NA	Solid	537 IDA	167878
460-241982-8	045_LB-27-6-8	Total/NA	Solid	537 IDA	167878
460-241982-9	046_LB-27-15-16	Total/NA	Solid	537 IDA	167925
460-241982-10	047_HS-1-8-10	Total/NA	Solid	537 IDA	167878
460-241982-11	048_HS-1-10-12	Total/NA	Solid	537 IDA	167878
460-241982-12	049_LB-31-5-7	Total/NA	Solid	537 IDA	167878
460-241982-13	050_LB-31-15-16	Total/NA	Solid	537 IDA	167878
460-241982-14	051_LB-32-5-7	Total/NA	Solid	537 IDA	167878
460-241982-15	052_LB-32-15-16	Total/NA	Solid	537 IDA	167878
460-241982-16	053_LB-33-5-7	Total/NA	Solid	537 IDA	167878
460-241982-17	054_LB-33-15-16	Total/NA	Solid	537 IDA	167878
460-241982-18	055_LB-34-5-7	Total/NA	Solid	537 IDA	167878
460-241982-19	056_LB-34-15-16	Total/NA	Solid	537 IDA	167878
460-241982-20	057_LB-46-15-16	Total/NA	Solid	537 IDA	167878
460-241982-21	058_LB-45-11-13	Total/NA	Solid	537 IDA	167878
460-241982-22	059_LB-45-15-16	Total/NA	Solid	537 IDA	167925
460-241982-24	061_LB-44-15-16	Total/NA	Solid	537 IDA	167925
460-241982-26	063_LB-43-15-16	Total/NA	Solid	537 IDA	167925
460-241982-28	065_LB-42-15-16	Total/NA	Solid	537 IDA	167925
MB 410-167784/1-B	Method Blank	Total/NA	Solid	537 IDA	167878
MB 410-167873/1-B	Method Blank	Total/NA	Solid	537 IDA	167925
LCS 410-167784/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	167878
LCS 410-167873/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	167925
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	537 IDA	167878
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	537 IDA	167878
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	537 IDA	167925
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	537 IDA	167925

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

LCMS

Analysis Batch: 171424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-18 - DL	055_LB-34-5-7	Total/NA	Solid	537 IDA	167878

Metals

Prep Batch: 799583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	7471B	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	7471B	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	7471B	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	7471B	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	7471B	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	7471B	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	7471B	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	7471B	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	7471B	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	7471B	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	7471B	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	7471B	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	7471B	
MB 460-799583/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-799583/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	7471B	
460-241982-5 DU	042_LB-47-15-16	Total/NA	Solid	7471B	

Prep Batch: 799589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	7471B	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	7471B	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	7471B	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	7471B	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	7471B	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	7471B	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	7471B	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	7471B	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	7471B	
MB 460-799589/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-799589/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	7471B	
460-241982-9 DU	046_LB-27-15-16	Total/NA	Solid	7471B	

Analysis Batch: 799652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	7471B	799583
460-241982-2	039_LB-49-15-16	Total/NA	Solid	7471B	799583
460-241982-3	040_LB-48-5-7	Total/NA	Solid	7471B	799583
460-241982-4	041_LB-48-15-16	Total/NA	Solid	7471B	799583
460-241982-5	042_LB-47-15-16	Total/NA	Solid	7471B	799583
460-241982-6	043_HS-2-8-10	Total/NA	Solid	7471B	799583
460-241982-7	044_HS-2-10-12	Total/NA	Solid	7471B	799583
460-241982-8	045_LB-27-6-8	Total/NA	Solid	7471B	799583
460-241982-9	046_LB-27-15-16	Total/NA	Solid	7471B	799589

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Metals (Continued)

Analysis Batch: 799652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-10	047_HS-1-8-10	Total/NA	Solid	7471B	799583
460-241982-11	048_HS-1-10-12	Total/NA	Solid	7471B	799583
460-241982-12	049_LB-31-5-7	Total/NA	Solid	7471B	799583
460-241982-13	050_LB-31-15-16	Total/NA	Solid	7471B	799583
460-241982-14	051_LB-32-5-7	Total/NA	Solid	7471B	799583
460-241982-15	052_LB-32-15-16	Total/NA	Solid	7471B	799589
460-241982-16	053_LB-33-5-7	Total/NA	Solid	7471B	799589
460-241982-17	054_LB-33-15-16	Total/NA	Solid	7471B	799589
460-241982-18	055_LB-34-5-7	Total/NA	Solid	7471B	799589
460-241982-19	056_LB-34-15-16	Total/NA	Solid	7471B	799589
460-241982-20	057_LB-46-15-16	Total/NA	Solid	7471B	799589
460-241982-21	058_LB-45-11-13	Total/NA	Solid	7471B	799589
460-241982-22	059_LB-45-15-16	Total/NA	Solid	7471B	799589
MB 460-799583/1-A	Method Blank	Total/NA	Solid	7471B	799583
MB 460-799589/1-A	Method Blank	Total/NA	Solid	7471B	799589
LCSSRM 460-799583/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	799583
LCSSRM 460-799589/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	799589
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	7471B	799583
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	7471B	799589
460-241982-5 DU	042_LB-47-15-16	Total/NA	Solid	7471B	799583
460-241982-9 DU	046_LB-27-15-16	Total/NA	Solid	7471B	799589

Prep Batch: 799818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	3010A	
460-241982-31	068_FB-3	Total/NA	Water	3010A	
460-241982-32	069_FB-4	Total/NA	Water	3010A	
MB 460-799818/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-799818/2-A	Lab Control Sample	Total/NA	Water	3010A	
460-242075-F-1-D MS	Matrix Spike	Total/NA	Water	3010A	
460-242075-B-1-A DU	Duplicate	Total/NA	Water	3010A	

Prep Batch: 799944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-23	060_LB-44-8-10	Total/NA	Solid	7471B	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	7471B	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	7471B	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	7471B	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	7471B	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	7471B	
MB 460-799944/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-799944/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	
460-242206-C-4-D MS	Matrix Spike	Total/NA	Solid	7471B	
460-242206-C-4-C DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 800040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-23	060_LB-44-8-10	Total/NA	Solid	7471B	799944
460-241982-24	061_LB-44-15-16	Total/NA	Solid	7471B	799944
460-241982-25	062_LB-43-9-11	Total/NA	Solid	7471B	799944
460-241982-26	063_LB-43-15-16	Total/NA	Solid	7471B	799944

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Metals (Continued)

Analysis Batch: 800040 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-27	064_LB-42-5-7	Total/NA	Solid	7471B	799944
460-241982-28	065_LB-42-15-16	Total/NA	Solid	7471B	799944
MB 460-799944/10-A	Method Blank	Total/NA	Solid	7471B	799944
LCSSRM 460-799944/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	799944
460-242206-C-4-D MS	Matrix Spike	Total/NA	Solid	7471B	799944
460-242206-C-4-C DU	Duplicate	Total/NA	Solid	7471B	799944

Prep Batch: 800055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	7470A	
460-241982-31	068_FB-3	Total/NA	Water	7470A	
460-241982-32	069_FB-4	Total/NA	Water	7470A	
MB 460-800055/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-800055/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-242075-F-1-F MS	Matrix Spike	Total/NA	Water	7470A	
460-242075-B-1-B DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 800062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	6020B	799818
460-241982-31	068_FB-3	Total/NA	Water	6020B	799818
460-241982-32	069_FB-4	Total/NA	Water	6020B	799818
MB 460-799818/1-A	Method Blank	Total/NA	Water	6020B	799818
LCS 460-799818/2-A	Lab Control Sample	Total/NA	Water	6020B	799818
460-242075-F-1-D MS	Matrix Spike	Total/NA	Water	6020B	799818
460-242075-B-1-A DU	Duplicate	Total/NA	Water	6020B	799818

Analysis Batch: 800084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	7470A	800055
460-241982-31	068_FB-3	Total/NA	Water	7470A	800055
460-241982-32	069_FB-4	Total/NA	Water	7470A	800055
MB 460-800055/1-A	Method Blank	Total/NA	Water	7470A	800055
LCS 460-800055/2-A	Lab Control Sample	Total/NA	Water	7470A	800055
460-242075-F-1-F MS	Matrix Spike	Total/NA	Water	7470A	800055
460-242075-B-1-B DU	Duplicate	Total/NA	Water	7470A	800055

Prep Batch: 800143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	3050B	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	3050B	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	3050B	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	3050B	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	3050B	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	3050B	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	3050B	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	3050B	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	3050B	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	3050B	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	3050B	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	3050B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Metals (Continued)

Prep Batch: 800143 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-14	051_LB-32-5-7	Total/NA	Solid	3050B	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	3050B	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	3050B	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	3050B	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	3050B	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	3050B	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	3050B	
MB 460-800143/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-800143/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	3050B	
460-241982-5 DU	042_LB-47-15-16	Total/NA	Solid	3050B	

Analysis Batch: 800227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	6020B	800143
460-241982-2	039_LB-49-15-16	Total/NA	Solid	6020B	800143
460-241982-3	040_LB-48-5-7	Total/NA	Solid	6020B	800143
460-241982-4	041_LB-48-15-16	Total/NA	Solid	6020B	800143
460-241982-5	042_LB-47-15-16	Total/NA	Solid	6020B	800143
460-241982-6	043_HS-2-8-10	Total/NA	Solid	6020B	800143
460-241982-7	044_HS-2-10-12	Total/NA	Solid	6020B	800143
460-241982-8	045_LB-27-6-8	Total/NA	Solid	6020B	800143
460-241982-10	047_HS-1-8-10	Total/NA	Solid	6020B	800143
460-241982-11	048_HS-1-10-12	Total/NA	Solid	6020B	800143
460-241982-12	049_LB-31-5-7	Total/NA	Solid	6020B	800143
460-241982-13	050_LB-31-15-16	Total/NA	Solid	6020B	800143
460-241982-14	051_LB-32-5-7	Total/NA	Solid	6020B	800143
460-241982-15	052_LB-32-15-16	Total/NA	Solid	6020B	800143
460-241982-16	053_LB-33-5-7	Total/NA	Solid	6020B	800143
460-241982-17	054_LB-33-15-16	Total/NA	Solid	6020B	800143
460-241982-18	055_LB-34-5-7	Total/NA	Solid	6020B	800143
460-241982-19	056_LB-34-15-16	Total/NA	Solid	6020B	800143
460-241982-20	057_LB-46-15-16	Total/NA	Solid	6020B	800143
MB 460-800143/1-A	Method Blank	Total/NA	Solid	6020B	800143
LCSSRM 460-800143/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	800143
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	6020B	800143
460-241982-5 DU	042_LB-47-15-16	Total/NA	Solid	6020B	800143

Prep Batch: 800346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	3050B	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	3050B	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	3050B	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	3050B	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	3050B	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	3050B	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	3050B	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	3050B	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	3050B	
MB 460-800346/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-800346/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Metals (Continued)

Prep Batch: 800346 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	3050B	
460-241982-9 DU	046_LB-27-15-16	Total/NA	Solid	3050B	

Analysis Batch: 800413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	6020B	800346
460-241982-21	058_LB-45-11-13	Total/NA	Solid	6020B	800346
460-241982-22	059_LB-45-15-16	Total/NA	Solid	6020B	800346
460-241982-23	060_LB-44-8-10	Total/NA	Solid	6020B	800346
460-241982-24	061_LB-44-15-16	Total/NA	Solid	6020B	800346
460-241982-25	062_LB-43-9-11	Total/NA	Solid	6020B	800346
460-241982-26	063_LB-43-15-16	Total/NA	Solid	6020B	800346
460-241982-27	064_LB-42-5-7	Total/NA	Solid	6020B	800346
460-241982-28	065_LB-42-15-16	Total/NA	Solid	6020B	800346
MB 460-800346/1-A	Method Blank	Total/NA	Solid	6020B	800346
LCSSRM 460-800346/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	800346
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	6020B	800346
460-241982-9 DU	046_LB-27-15-16	Total/NA	Solid	6020B	800346

General Chemistry

Analysis Batch: 799646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	Moisture	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	Moisture	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	Moisture	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	Moisture	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	Moisture	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	Moisture	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	Moisture	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	Moisture	
460-241982-9	046_LB-27-15-16	Total/NA	Solid	Moisture	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	Moisture	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	Moisture	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	Moisture	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	Moisture	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	Moisture	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	Moisture	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	Moisture	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	Moisture	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	Moisture	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	Moisture	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	Moisture	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	Moisture	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	Moisture	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	Moisture	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	Moisture	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	Moisture	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	Moisture	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	Moisture	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	Moisture	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

General Chemistry (Continued)

Analysis Batch: 799646 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	Moisture	
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	Moisture	
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	Moisture	
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	Moisture	
460-241982-5 DU	042_LB-47-15-16	Total/NA	Solid	Moisture	
460-241982-9 DU	046_LB-27-15-16	Total/NA	Solid	Moisture	
460-241982-20 DU	057_LB-46-15-16	Total/NA	Solid	Moisture	

Prep Batch: 799763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	9012B	
460-241982-31	068_FB-3	Total/NA	Water	9012B	
460-241982-32	069_FB-4	Total/NA	Water	9012B	
MB 460-799763/1-A	Method Blank	Total/NA	Water	9012B	
LCS 460-799763/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-242075-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	
460-242075-D-1-E MS	Matrix Spike	Total/NA	Water	9012B	

Analysis Batch: 799829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	7196A	
460-241982-31	068_FB-3	Total/NA	Water	7196A	
460-241982-32	069_FB-4	Total/NA	Water	7196A	
MB 460-799829/9	Method Blank	Total/NA	Water	7196A	
LCSSRM 460-799829/10	Lab Control Sample	Total/NA	Water	7196A	
460-242163-E-1 MS	Matrix Spike	Dissolved	Water	7196A	
460-242163-E-1 DU	Duplicate	Dissolved	Water	7196A	

Prep Batch: 799927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	9012B	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	9012B	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	9012B	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	9012B	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	9012B	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	9012B	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	9012B	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	9012B	
460-241982-9	046_LB-27-15-16	Total/NA	Solid	9012B	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	9012B	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	9012B	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	9012B	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	9012B	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	9012B	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	9012B	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	9012B	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	9012B	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	9012B	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	9012B	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	9012B	
MB 460-799927/2-A	Method Blank	Total/NA	Solid	9012B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

General Chemistry (Continued)

Prep Batch: 799927 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 460-799927/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
MRL 460-799927/1-A	Lab Control Sample	Total/NA	Solid	9012B	
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	9012B	
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	9012B	
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	9012B	
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	9012B	

Analysis Batch: 799930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-30	067_FB-2	Total/NA	Water	9012B	799763
460-241982-31	068_FB-3	Total/NA	Water	9012B	799763
460-241982-32	069_FB-4	Total/NA	Water	9012B	799763
MB 460-799763/1-A	Method Blank	Total/NA	Water	9012B	799763
LCS 460-799763/2-A	Lab Control Sample	Total/NA	Water	9012B	799763
460-242075-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	799763
460-242075-D-1-E MS	Matrix Spike	Total/NA	Water	9012B	799763

Prep Batch: 799931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-21	058_LB-45-11-13	Total/NA	Solid	9012B	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	9012B	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	9012B	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	9012B	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	9012B	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	9012B	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	9012B	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	9012B	
MB 460-799931/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-799931/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-241982-21 MS	058_LB-45-11-13	Total/NA	Solid	9012B	
460-241982-21 MSD	058_LB-45-11-13	Total/NA	Solid	9012B	

Analysis Batch: 799943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	9012B	799927
460-241982-2	039_LB-49-15-16	Total/NA	Solid	9012B	799927
460-241982-3	040_LB-48-5-7	Total/NA	Solid	9012B	799927
460-241982-4	041_LB-48-15-16	Total/NA	Solid	9012B	799927
460-241982-5	042_LB-47-15-16	Total/NA	Solid	9012B	799927
460-241982-6	043_HS-2-8-10	Total/NA	Solid	9012B	799927
460-241982-7	044_HS-2-10-12	Total/NA	Solid	9012B	799927
460-241982-8	045_LB-27-6-8	Total/NA	Solid	9012B	799927
460-241982-9	046_LB-27-15-16	Total/NA	Solid	9012B	799927
460-241982-10	047_HS-1-8-10	Total/NA	Solid	9012B	799927
460-241982-11	048_HS-1-10-12	Total/NA	Solid	9012B	799927
460-241982-12	049_LB-31-5-7	Total/NA	Solid	9012B	799927
460-241982-13	050_LB-31-15-16	Total/NA	Solid	9012B	799927
460-241982-14	051_LB-32-5-7	Total/NA	Solid	9012B	799927
460-241982-15	052_LB-32-15-16	Total/NA	Solid	9012B	799927
460-241982-16	053_LB-33-5-7	Total/NA	Solid	9012B	799927
460-241982-17	054_LB-33-15-16	Total/NA	Solid	9012B	799927

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

General Chemistry (Continued)

Analysis Batch: 799943 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-18	055_LB-34-5-7	Total/NA	Solid	9012B	799927
460-241982-19	056_LB-34-15-16	Total/NA	Solid	9012B	799927
460-241982-20	057_LB-46-15-16	Total/NA	Solid	9012B	799927
460-241982-21	058_LB-45-11-13	Total/NA	Solid	9012B	799931
460-241982-22	059_LB-45-15-16	Total/NA	Solid	9012B	799931
460-241982-23	060_LB-44-8-10	Total/NA	Solid	9012B	799931
460-241982-24	061_LB-44-15-16	Total/NA	Solid	9012B	799931
460-241982-25	062_LB-43-9-11	Total/NA	Solid	9012B	799931
460-241982-26	063_LB-43-15-16	Total/NA	Solid	9012B	799931
460-241982-27	064_LB-42-5-7	Total/NA	Solid	9012B	799931
460-241982-28	065_LB-42-15-16	Total/NA	Solid	9012B	799931
MB 460-799927/2-A	Method Blank	Total/NA	Solid	9012B	799927
MB 460-799931/1-A	Method Blank	Total/NA	Solid	9012B	799931
LCSSRM 460-799927/3-A ^2	Lab Control Sample	Total/NA	Solid	9012B	799927
LCSSRM 460-799931/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	799931
MRL 460-799927/1-A	Lab Control Sample	Total/NA	Solid	9012B	799927
460-241982-5 MS	042_LB-47-15-16	Total/NA	Solid	9012B	799927
460-241982-5 MSD	042_LB-47-15-16	Total/NA	Solid	9012B	799927
460-241982-9 MS	046_LB-27-15-16	Total/NA	Solid	9012B	799927
460-241982-9 MSD	046_LB-27-15-16	Total/NA	Solid	9012B	799927
460-241982-21 MS	058_LB-45-11-13	Total/NA	Solid	9012B	799931
460-241982-21 MSD	058_LB-45-11-13	Total/NA	Solid	9012B	799931

Analysis Batch: 799991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	7196A	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	7196A	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	7196A	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	7196A	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	7196A	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	7196A	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	7196A	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	7196A	
460-241982-9	046_LB-27-15-16	Total/NA	Solid	7196A	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	7196A	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	7196A	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	7196A	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	7196A	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	7196A	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	7196A	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	7196A	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	7196A	
460-241982-18	055_LB-34-5-7	Total/NA	Solid	7196A	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	7196A	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	7196A	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	7196A	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	7196A	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	7196A	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	7196A	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	7196A	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	7196A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

General Chemistry (Continued)

Analysis Batch: 799991 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-27	064_LB-42-5-7	Total/NA	Solid	7196A	
460-241982-28	065_LB-42-15-16	Total/NA	Solid	7196A	
460-241982-30	067_FB-2	Total/NA	Water	7196A	
460-241982-31	068_FB-3	Total/NA	Water	7196A	
460-241982-32	069_FB-4	Total/NA	Water	7196A	

Prep Batch: 800065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	3060A	
460-241982-2	039_LB-49-15-16	Total/NA	Solid	3060A	
460-241982-3	040_LB-48-5-7	Total/NA	Solid	3060A	
460-241982-4	041_LB-48-15-16	Total/NA	Solid	3060A	
460-241982-5	042_LB-47-15-16	Total/NA	Solid	3060A	
460-241982-6	043_HS-2-8-10	Total/NA	Solid	3060A	
460-241982-7	044_HS-2-10-12	Total/NA	Solid	3060A	
460-241982-8	045_LB-27-6-8	Total/NA	Solid	3060A	
460-241982-10	047_HS-1-8-10	Total/NA	Solid	3060A	
460-241982-11	048_HS-1-10-12	Total/NA	Solid	3060A	
460-241982-12	049_LB-31-5-7	Total/NA	Solid	3060A	
MB 460-800065/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-800065/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-800065/2-A	Lab Control Sample	Total/NA	Solid	3060A	
460-241982-5 MSI	042_LB-47-15-16	Total/NA	Solid	3060A	
460-241982-5 MSS	042_LB-47-15-16	Total/NA	Solid	3060A	
460-241982-5 DU	042_LB-47-15-16	Total/NA	Solid	3060A	

Analysis Batch: 800263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-1	038_LB-49-8-10	Total/NA	Solid	7196A	800065
460-241982-2	039_LB-49-15-16	Total/NA	Solid	7196A	800065
460-241982-3	040_LB-48-5-7	Total/NA	Solid	7196A	800065
460-241982-4	041_LB-48-15-16	Total/NA	Solid	7196A	800065
460-241982-5	042_LB-47-15-16	Total/NA	Solid	7196A	800065
460-241982-6	043_HS-2-8-10	Total/NA	Solid	7196A	800065
460-241982-7	044_HS-2-10-12	Total/NA	Solid	7196A	800065
460-241982-8	045_LB-27-6-8	Total/NA	Solid	7196A	800065
460-241982-10	047_HS-1-8-10	Total/NA	Solid	7196A	800065
460-241982-11	048_HS-1-10-12	Total/NA	Solid	7196A	800065
460-241982-12	049_LB-31-5-7	Total/NA	Solid	7196A	800065
MB 460-800065/1-A	Method Blank	Total/NA	Solid	7196A	800065
LCSI 460-800065/3-A	Lab Control Sample	Total/NA	Solid	7196A	800065
LCSSRM 460-800065/2-A	Lab Control Sample	Total/NA	Solid	7196A	800065
460-241982-5 MSI	042_LB-47-15-16	Total/NA	Solid	7196A	800065
460-241982-5 MSS	042_LB-47-15-16	Total/NA	Solid	7196A	800065
460-241982-5 DU	042_LB-47-15-16	Total/NA	Solid	7196A	800065

Prep Batch: 800633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-18	055_LB-34-5-7	Total/NA	Solid	3060A	
MB 460-800633/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-800633/3-A	Lab Control Sample	Total/NA	Solid	3060A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

General Chemistry (Continued)

Prep Batch: 800633 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 460-800633/2-A	Lab Control Sample	Total/NA	Solid	3060A	
460-241982-18 MSI	055_LB-34-5-7	Total/NA	Solid	3060A	
460-241982-18 MSS	055_LB-34-5-7	Total/NA	Solid	3060A	
460-241982-18 DU	055_LB-34-5-7	Total/NA	Solid	3060A	

Analysis Batch: 800651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-18	055_LB-34-5-7	Total/NA	Solid	7196A	800633
MB 460-800633/1-A	Method Blank	Total/NA	Solid	7196A	800633
LCSI 460-800633/3-A	Lab Control Sample	Total/NA	Solid	7196A	800633
LCSSRM 460-800633/2-A	Lab Control Sample	Total/NA	Solid	7196A	800633
460-241982-18 MSI	055_LB-34-5-7	Total/NA	Solid	7196A	800633
460-241982-18 MSS	055_LB-34-5-7	Total/NA	Solid	7196A	800633
460-241982-18 DU	055_LB-34-5-7	Total/NA	Solid	7196A	800633

Prep Batch: 801691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	3060A	
460-241982-13	050_LB-31-15-16	Total/NA	Solid	3060A	
460-241982-14	051_LB-32-5-7	Total/NA	Solid	3060A	
460-241982-15	052_LB-32-15-16	Total/NA	Solid	3060A	
460-241982-16	053_LB-33-5-7	Total/NA	Solid	3060A	
460-241982-17	054_LB-33-15-16	Total/NA	Solid	3060A	
460-241982-19	056_LB-34-15-16	Total/NA	Solid	3060A	
460-241982-20	057_LB-46-15-16	Total/NA	Solid	3060A	
460-241982-21	058_LB-45-11-13	Total/NA	Solid	3060A	
460-241982-22	059_LB-45-15-16	Total/NA	Solid	3060A	
460-241982-23	060_LB-44-8-10	Total/NA	Solid	3060A	
460-241982-24	061_LB-44-15-16	Total/NA	Solid	3060A	
460-241982-25	062_LB-43-9-11	Total/NA	Solid	3060A	
460-241982-26	063_LB-43-15-16	Total/NA	Solid	3060A	
460-241982-27	064_LB-42-5-7	Total/NA	Solid	3060A	
MB 460-801691/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-801691/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-801691/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-801691/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-241982-9 MSI	046_LB-27-15-16	Total/NA	Solid	3060A	
460-241982-9 MSS	046_LB-27-15-16	Total/NA	Solid	3060A	
460-241982-9 DU	046_LB-27-15-16	Total/NA	Solid	3060A	

Prep Batch: 801694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-28	065_LB-42-15-16	Total/NA	Solid	3060A	
MB 460-801694/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-801694/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-801694/2-A	Lab Control Sample	Total/NA	Solid	3060A	
460-241499-A-14-H MSS	Matrix Spike	Total/NA	Solid	3060A	
460-241499-A-14-I MSI	Matrix Spike	Total/NA	Solid	3060A	
460-241499-A-14-G DU	Duplicate	Total/NA	Solid	3060A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

General Chemistry

Analysis Batch: 801883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-28	065_LB-42-15-16	Total/NA	Solid	7196A	801694
MB 460-801694/1-A	Method Blank	Total/NA	Solid	7196A	801694
LCSI 460-801694/3-A	Lab Control Sample	Total/NA	Solid	7196A	801694
LCSSRM 460-801694/2-A	Lab Control Sample	Total/NA	Solid	7196A	801694
460-241499-A-14-H MSS	Matrix Spike	Total/NA	Solid	7196A	801694
460-241499-A-14-I MSI	Matrix Spike	Total/NA	Solid	7196A	801694
460-241499-A-14-G DU	Duplicate	Total/NA	Solid	7196A	801694

Analysis Batch: 801922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-9	046_LB-27-15-16	Total/NA	Solid	7196A	801691
460-241982-13	050_LB-31-15-16	Total/NA	Solid	7196A	801691
460-241982-14	051_LB-32-5-7	Total/NA	Solid	7196A	801691
460-241982-15	052_LB-32-15-16	Total/NA	Solid	7196A	801691
460-241982-16	053_LB-33-5-7	Total/NA	Solid	7196A	801691
460-241982-17	054_LB-33-15-16	Total/NA	Solid	7196A	801691
460-241982-19	056_LB-34-15-16	Total/NA	Solid	7196A	801691
460-241982-20	057_LB-46-15-16	Total/NA	Solid	7196A	801691
460-241982-21	058_LB-45-11-13	Total/NA	Solid	7196A	801691
460-241982-22	059_LB-45-15-16	Total/NA	Solid	7196A	801691
460-241982-23	060_LB-44-8-10	Total/NA	Solid	7196A	801691
460-241982-24	061_LB-44-15-16	Total/NA	Solid	7196A	801691
460-241982-25	062_LB-43-9-11	Total/NA	Solid	7196A	801691
460-241982-26	063_LB-43-15-16	Total/NA	Solid	7196A	801691
460-241982-27	064_LB-42-5-7	Total/NA	Solid	7196A	801691
MB 460-801691/1-A	Method Blank	Total/NA	Solid	7196A	801691
LCSI 460-801691/3-A	Lab Control Sample	Total/NA	Solid	7196A	801691
LCSSRM 460-801691/2-A	Lab Control Sample	Total/NA	Solid	7196A	801691
LCSSRM 460-801691/4-A	Lab Control Sample	Total/NA	Solid	7196A	801691
460-241982-9 MSI	046_LB-27-15-16	Total/NA	Solid	7196A	801691
460-241982-9 MSS	046_LB-27-15-16	Total/NA	Solid	7196A	801691
460-241982-9 DU	046_LB-27-15-16	Total/NA	Solid	7196A	801691

Prep Batch: 803453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-28	065_LB-42-15-16	Total/NA	Solid	3060A	
MB 460-803453/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-803453/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-803453/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-803453/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-241499-A-14-L MSS	Matrix Spike	Total/NA	Solid	3060A	
460-241499-A-14-M MSI	Matrix Spike	Total/NA	Solid	3060A	
460-241499-A-14-K DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 803492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241982-28	065_LB-42-15-16	Total/NA	Solid	7196A	803453
MB 460-803453/1-A	Method Blank	Total/NA	Solid	7196A	803453
LCSI 460-803453/3-A	Lab Control Sample	Total/NA	Solid	7196A	803453
LCSSRM 460-803453/2-A	Lab Control Sample	Total/NA	Solid	7196A	803453
LCSSRM 460-803453/4-A	Lab Control Sample	Total/NA	Solid	7196A	803453

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

General Chemistry (Continued)

Analysis Batch: 803492 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-241499-A-14-L MSS	Matrix Spike	Total/NA	Solid	7196A	803453
460-241499-A-14-M MSI	Matrix Spike	Total/NA	Solid	7196A	803453
460-241499-A-14-K DU	Duplicate	Total/NA	Solid	7196A	803453

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 038_LB-49-8-10

Lab Sample ID: 460-241982-1

Date Collected: 08/31/21 08:50

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 038_LB-49-8-10

Lab Sample ID: 460-241982-1

Date Collected: 08/31/21 08:50

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799464	FHW	EET EDI	09/02/21 11:09
Total/NA	Analysis	8270E		1	799531	YAH	EET EDI	09/03/21 04:52
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		5	799574	FAM	EET EDI	09/03/21 09:49
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 07:43
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 18:16
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 22:29
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 11:41
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:33
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:00
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:07

Client Sample ID: 039_LB-49-15-16

Lab Sample ID: 460-241982-2

Date Collected: 08/31/21 09:00

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 039_LB-49-15-16

Lab Sample ID: 460-241982-2

Date Collected: 08/31/21 09:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799464	FHW	EET EDI	09/02/21 11:09
Total/NA	Analysis	8270E		1	799531	YAH	EET EDI	09/03/21 02:56
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799574	FAM	EET EDI	09/03/21 08:13

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 039_LB-49-15-16

Lab Sample ID: 460-241982-2

Date Collected: 08/31/21 09:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 08:00
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 18:30
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 22:40
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 11:44
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:35
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:00
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:08

Client Sample ID: 040_LB-48-5-7

Lab Sample ID: 460-241982-3

Date Collected: 08/31/21 10:00

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 040_LB-48-5-7

Lab Sample ID: 460-241982-3

Date Collected: 08/31/21 10:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799464	FHW	EET EDI	09/02/21 11:09
Total/NA	Analysis	8270E		1	799531	YAH	EET EDI	09/03/21 02:32
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799574	FAM	EET EDI	09/03/21 08:29
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 08:17
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 18:43
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 22:51
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:17
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:36

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 040_LB-48-5-7

Lab Sample ID: 460-241982-3

Date Collected: 08/31/21 10:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:00
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:09

Client Sample ID: 041_LB-48-15-16

Lab Sample ID: 460-241982-4

Date Collected: 08/31/21 10:10

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 041_LB-48-15-16

Lab Sample ID: 460-241982-4

Date Collected: 08/31/21 10:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799464	FHW	EET EDI	09/02/21 11:09
Total/NA	Analysis	8270E		1	799531	YAH	EET EDI	09/02/21 22:14
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799574	FAM	EET EDI	09/03/21 08:45
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 08:34
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 18:57
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 23:02
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:20
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:38
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:45
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:10

Client Sample ID: 042_LB-47-15-16

Lab Sample ID: 460-241982-5

Date Collected: 08/31/21 11:00

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 042_LB-47-15-16

Lab Sample ID: 460-241982-5

Date Collected: 08/31/21 11:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799464	FHW	EET EDI	09/02/21 11:09
Total/NA	Analysis	8270E		1	799531	YAH	EET EDI	09/02/21 21:04
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799574	FAM	EET EDI	09/03/21 09:01
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 08:51
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 16:55
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 23:14
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 11:35
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:10
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 '1
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:45
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:05

Client Sample ID: 043_HS-2-8-10

Lab Sample ID: 460-241982-6

Date Collected: 08/31/21 11:45

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 043_HS-2-8-10

Lab Sample ID: 460-241982-6

Date Collected: 08/31/21 11:45

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799464	FHW	EET EDI	09/02/21 11:09
Total/NA	Analysis	8270E		1	799531	YAH	EET EDI	09/02/21 22:38
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 06:29
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 09:43
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 19:38
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 23:58

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 043_HS-2-8-10

Date Collected: 08/31/21 11:45

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-6

Matrix: Solid

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:22
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:40
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:45
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:11

Client Sample ID: 044_HS-2-10-12

Date Collected: 08/31/21 11:55

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 044_HS-2-10-12

Date Collected: 08/31/21 11:55

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-7

Matrix: Solid

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799464	FHW	EET EDI	09/02/21 11:09
Total/NA	Analysis	8270E		1	799531	YAH	EET EDI	09/02/21 23:02
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 06:41
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 10:00
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 19:51
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 00:09
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:24
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:41
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:45
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:15

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 045_LB-27-6-8

Lab Sample ID: 460-241982-8

Date Collected: 08/31/21 12:20

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 045_LB-27-6-8

Lab Sample ID: 460-241982-8

Date Collected: 08/31/21 12:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799464	FHW	EET EDI	09/02/21 11:09
Total/NA	Analysis	8270E		1	799531	YAH	EET EDI	09/02/21 23:26
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 06:53
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 10:17
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 20:05
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 00:20
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:26
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:43
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:45
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:16

Client Sample ID: 046_LB-27-15-16

Lab Sample ID: 460-241982-9

Date Collected: 08/31/21 12:30

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:25
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 046_LB-27-15-16

Lab Sample ID: 460-241982-9

Date Collected: 08/31/21 12:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/02/21 20:41
Total/NA	Prep	3546			799534	ARA	EET EDI	09/02/21 18:28
Total/NA	Analysis	8081B		1	799577	FAM	EET EDI	09/03/21 05:40

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 046_LB-27-15-16

Lab Sample ID: 460-241982-9

Date Collected: 08/31/21 12:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799523	ARA	EET EDI	09/02/21 18:02
Total/NA	Analysis	8082A		1	799594	JHP	EET EDI	09/03/21 08:21
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 11:32
Total/NA	Prep	SHAKE			167873	X4HV	ELLE	09/03/21 11:51
Total/NA	Cleanup	Extract Aliquot			167925	X4HV	ELLE	09/03/21 13:55
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 18:04
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:13
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:00
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 21:55
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:18

Client Sample ID: 047_HS-1-8-10

Lab Sample ID: 460-241982-10

Date Collected: 08/31/21 13:00

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 047_HS-1-8-10

Lab Sample ID: 460-241982-10

Date Collected: 08/31/21 13:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/02/21 21:48
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 07:06
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 10:34
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 20:18
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 00:31
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:29
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:48

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 047_HS-1-8-10

Lab Sample ID: 460-241982-10

Date Collected: 08/31/21 13:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:45
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:17

Client Sample ID: 048_HS-1-10-12

Lab Sample ID: 460-241982-11

Date Collected: 08/31/21 13:30

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 048_HS-1-10-12

Lab Sample ID: 460-241982-11

Date Collected: 08/31/21 13:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/02/21 22:11
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 07:18
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 10:51
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 20:32
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 00:42
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:31
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:50
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:45
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:18

Client Sample ID: 049_LB-31-5-7

Lab Sample ID: 460-241982-12

Date Collected: 08/31/21 15:00

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 049_LB-31-5-7

Date Collected: 08/31/21 15:00

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-12

Matrix: Solid

Percent Solids: 93.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:53
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/02/21 22:28
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/02/21 22:33
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 07:30
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 11:08
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 20:45
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 00:53
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:33
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:52
Total/NA	Prep	3060A			800065	OXG	EET EDI	09/07/21 14:44 - 09/07/21 17:20 ¹
Total/NA	Analysis	7196A		1	800263	RAK	EET EDI	09/08/21 14:45
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:21

Client Sample ID: 050_LB-31-15-16

Date Collected: 08/31/21 15:05

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 050_LB-31-15-16

Date Collected: 08/31/21 15:05

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-13

Matrix: Solid

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:53
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/02/21 22:48
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/02/21 22:56
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 07:43
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 11:25
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 20:59

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 050_LB-31-15-16

Date Collected: 08/31/21 15:05

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-13

Matrix: Solid

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 01:04
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:40
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:53
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 21:55
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:22

Client Sample ID: 051_LB-32-5-7

Date Collected: 08/31/21 15:10

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 051_LB-32-5-7

Date Collected: 08/31/21 15:10

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-14

Matrix: Solid

Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:54
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/02/21 23:08
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/02/21 23:18
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 07:55
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 11:42
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 21:12
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 01:15
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:42
Total/NA	Prep	7471B			799583	TJS	EET EDI	09/03/21 03:44
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 08:55
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 21:55

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 051_LB-32-5-7

Date Collected: 08/31/21 15:10

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-14

Matrix: Solid

Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:23

Client Sample ID: 052_LB-32-15-16

Date Collected: 08/31/21 15:10

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 052_LB-32-15-16

Date Collected: 08/31/21 15:10

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-15

Matrix: Solid

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:55
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/02/21 23:28
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/02/21 23:40
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 08:07
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 11:59
Total/NA	Prep	8151A			799564	AFR	EET EDI	09/03/21 00:12
Total/NA	Analysis	8151A		1	799628	JHP	EET EDI	09/03/21 21:26
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 01:26
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:45
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:11
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 21:55
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:27

Client Sample ID: 053_LB-33-5-7

Date Collected: 08/31/21 15:15

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-16

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 053_LB-33-5-7

Date Collected: 08/31/21 15:15

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-16

Matrix: Solid

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:56
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/02/21 23:49
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 00:03
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 08:20
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 12:16
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 11:47
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 01:37
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:47
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:12
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 21:55
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:28

Client Sample ID: 054_LB-33-15-16

Date Collected: 08/31/21 15:25

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 054_LB-33-15-16

Date Collected: 08/31/21 15:25

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-17

Matrix: Solid

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:56
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/03/21 00:09
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 00:25
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 08:32
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 12:33
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 12:02

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 054_LB-33-15-16

Date Collected: 08/31/21 15:25

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-17

Matrix: Solid

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 02:00
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:49
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:14
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 21:55
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:29

Client Sample ID: 055_LB-34-5-7

Date Collected: 08/31/21 16:00

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/13/21 06:50
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 055_LB-34-5-7

Date Collected: 08/31/21 16:00

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-18

Matrix: Solid

Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:57
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/03/21 00:29
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 00:48
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 08:44
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 12:50
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 12:17
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 02:11
Total/NA	Prep	SHAKE	DL		167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot	DL		167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA	DL	10	171424	ZG8V	ELLE	09/15/21 13:00
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:51
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:16

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 055_LB-34-5-7

Date Collected: 08/31/21 16:00

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-18

Matrix: Solid

Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3060A			800633	RAK	EET EDI	09/10/21 12:29 - 09/10/21 14:30 ¹
Total/NA	Analysis	7196A		1	800651	RAK	EET EDI	09/10/21 16:00
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:30

Client Sample ID: 056_LB-34-15-16

Date Collected: 08/31/21 16:05

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 056_LB-34-15-16

Date Collected: 08/31/21 16:05

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-19

Matrix: Solid

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:58
Total/NA	Analysis	8260D		1	799587	AAT	EET EDI	09/03/21 09:18
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 01:11
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 08:57
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 13:07
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 12:31
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 02:22
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:54
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:18
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 21:55
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:31

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 057_LB-46-15-16

Lab Sample ID: 460-241982-20

Date Collected: 08/31/21 16:10

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 057_LB-46-15-16

Lab Sample ID: 460-241982-20

Date Collected: 08/31/21 16:10

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 75.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 07:59
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/03/21 01:09
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 01:33
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 09:09
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 13:24
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 14:02
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 02:33
Total/NA	Prep	3050B			800143	GMC	EET EDI	09/08/21 04:22
Total/NA	Analysis	6020B		1	800227	MDC	EET EDI	09/08/21 12:56
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:19
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 21:55
Total/NA	Prep	9012B			799927	VBG	EET EDI	09/05/21 14:10
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:31

Client Sample ID: 058_LB-45-11-13

Lab Sample ID: 460-241982-21

Date Collected: 08/31/21 16:15

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 058_LB-45-11-13

Lab Sample ID: 460-241982-21

Date Collected: 08/31/21 16:15

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 08:00
Total/NA	Analysis	8260D		1	799587	AAT	EET EDI	09/03/21 09:39

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 058_LB-45-11-13

Date Collected: 08/31/21 16:15

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-21

Matrix: Solid

Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 01:56
Total/NA	Prep	3546			799533	ARA	EET EDI	09/02/21 18:26
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 09:21
Total/NA	Prep	3546			799522	ARA	EET EDI	09/02/21 17:59
Total/NA	Analysis	8082A		1	799593	JHP	EET EDI	09/03/21 13:41
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 14:17
Total/NA	Prep	SHAKE			167784	RDL8	ELLE	09/03/21 08:39
Total/NA	Cleanup	Extract Aliquot			167878	RDL8	ELLE	09/03/21 12:07
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/06/21 02:44
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:17
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:21
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 22:45
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:34

Client Sample ID: 059_LB-45-15-16

Date Collected: 08/31/21 16:20

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-22

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 059_LB-45-15-16

Date Collected: 08/31/21 16:20

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-22

Matrix: Solid

Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 08:00
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/03/21 01:50
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 02:18
Total/NA	Prep	3546			799534	ARA	EET EDI	09/02/21 18:28
Total/NA	Analysis	8081B		1	799577	FAM	EET EDI	09/03/21 09:06
Total/NA	Prep	3546			799523	ARA	EET EDI	09/02/21 18:02
Total/NA	Analysis	8082A		1	799594	JHP	EET EDI	09/03/21 09:08
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 14:32

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 059_LB-45-15-16

Lab Sample ID: 460-241982-22

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			167873	X4HV	ELLE	09/03/21 11:51
Total/NA	Cleanup	Extract Aliquot			167925	X4HV	ELLE	09/03/21 13:55
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 18:48
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:20
Total/NA	Prep	7471B			799589	TJS	EET EDI	09/03/21 04:02
Total/NA	Analysis	7471B		1	799652	TJS	EET EDI	09/03/21 09:23
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 22:45
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:40

Client Sample ID: 060_LB-44-8-10

Lab Sample ID: 460-241982-23

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 060_LB-44-8-10

Lab Sample ID: 460-241982-23

Date Collected: 08/31/21 16:20

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 08:01
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/03/21 02:10
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 02:41
Total/NA	Prep	3546			799534	ARA	EET EDI	09/02/21 18:28
Total/NA	Analysis	8081B		1	799577	FAM	EET EDI	09/03/21 09:21
Total/NA	Prep	3546			799523	ARA	EET EDI	09/02/21 18:02
Total/NA	Analysis	8082A		1	799594	JHP	EET EDI	09/03/21 09:24
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 14:46
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:22
Total/NA	Prep	7471B			799944	TJS	EET EDI	09/07/21 03:10
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 06:41
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 22:45
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:41

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 061_LB-44-15-16

Lab Sample ID: 460-241982-24

Date Collected: 08/31/21 16:30

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 061_LB-44-15-16

Lab Sample ID: 460-241982-24

Date Collected: 08/31/21 16:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 08:02
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/03/21 02:30
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 03:03
Total/NA	Prep	3546			799534	ARA	EET EDI	09/02/21 18:28
Total/NA	Analysis	8081B		1	799577	FAM	EET EDI	09/03/21 09:35
Total/NA	Prep	3546			799523	ARA	EET EDI	09/02/21 18:02
Total/NA	Analysis	8082A		1	799594	JHP	EET EDI	09/03/21 09:40
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 15:01
Total/NA	Prep	SHAKE			167873	X4HV	ELLE	09/03/21 11:51
Total/NA	Cleanup	Extract Aliquot			167925	X4HV	ELLE	09/03/21 13:55
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 18:59
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:24
Total/NA	Prep	7471B			799944	TJS	EET EDI	09/07/21 03:10
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 06:43
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 22:45
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:42

Client Sample ID: 062_LB-43-9-11

Lab Sample ID: 460-241982-25

Date Collected: 08/31/21 17:30

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 062_LB-43-9-11

Lab Sample ID: 460-241982-25

Date Collected: 08/31/21 17:30

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 08:03
Total/NA	Analysis	8260D		1	799587	AAT	EET EDI	09/03/21 09:59

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 062_LB-43-9-11

Date Collected: 08/31/21 17:30

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-25

Matrix: Solid

Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 03:25
Total/NA	Prep	3546			799534	ARA	EET EDI	09/02/21 18:28
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 09:34
Total/NA	Prep	3546			799523	ARA	EET EDI	09/02/21 18:02
Total/NA	Analysis	8082A		1	799594	JHP	EET EDI	09/03/21 09:56
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 15:16
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:26
Total/NA	Prep	7471B			799944	TJS	EET EDI	09/07/21 03:10
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 06:45
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 22:45
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:43

Client Sample ID: 063_LB-43-15-16

Date Collected: 08/31/21 17:35

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-26

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 063_LB-43-15-16

Date Collected: 08/31/21 17:35

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-26

Matrix: Solid

Percent Solids: 52.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 08:03
Total/NA	Analysis	8260D		1	799504	VBP	EET EDI	09/03/21 03:10
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 04:10
Total/NA	Prep	3546			799534	ARA	EET EDI	09/02/21 18:28
Total/NA	Analysis	8081B		1	799571	FAM	EET EDI	09/03/21 10:23
Total/NA	Prep	3546			799523	ARA	EET EDI	09/02/21 18:02
Total/NA	Analysis	8082A		1	799594	JHP	EET EDI	09/03/21 10:11
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 15:30
Total/NA	Prep	SHAKE			167873	X4HV	ELLE	09/03/21 11:51
Total/NA	Cleanup	Extract Aliquot			167925	X4HV	ELLE	09/03/21 13:55
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 19:10
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:33

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 063_LB-43-15-16

Lab Sample ID: 460-241982-26

Date Collected: 08/31/21 17:35

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 52.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			799944	TJS	EET EDI	09/07/21 03:10
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 06:46
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 22:45
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:43

Client Sample ID: 064_LB-42-5-7

Lab Sample ID: 460-241982-27

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 064_LB-42-5-7

Lab Sample ID: 460-241982-27

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 08:04
Total/NA	Analysis	8260D		1	799587	AAT	EET EDI	09/03/21 10:19
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 04:33
Total/NA	Prep	3546			799534	ARA	EET EDI	09/02/21 18:28
Total/NA	Analysis	8081B		1	799577	FAM	EET EDI	09/03/21 10:22
Total/NA	Prep	3546			799523	ARA	EET EDI	09/02/21 18:02
Total/NA	Analysis	8082A		1	799594	JHP	EET EDI	09/03/21 10:27
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 15:45
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:35
Total/NA	Prep	7471B			799944	TJS	EET EDI	09/07/21 03:10
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 06:51
Total/NA	Prep	3060A			801691	VBG	EET EDI	09/16/21 18:20 - 09/16/21 20:40 ¹
Total/NA	Analysis	7196A		1	801922	OXG	EET EDI	09/17/21 22:45
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:44

Client Sample ID: 065_LB-42-15-16

Lab Sample ID: 460-241982-28

Date Collected: 08/31/21 18:00

Matrix: Solid

Date Received: 09/01/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/19/21 22:00

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 065_LB-42-15-16

Date Collected: 08/31/21 18:00

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-28

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	799646	NZP	EET EDI	09/03/21 09:57

Client Sample ID: 065_LB-42-15-16

Date Collected: 08/31/21 18:00

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-28

Matrix: Solid

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799435	YXG	EET EDI	09/02/21 08:05
Total/NA	Analysis	8260D		1	799587	AAT	EET EDI	09/03/21 10:39
Total/NA	Prep	3546			799466	FHW	EET EDI	09/02/21 11:14
Total/NA	Analysis	8270E		1	799528	YAH	EET EDI	09/03/21 03:48
Total/NA	Prep	3546			799534	ARA	EET EDI	09/02/21 18:28
Total/NA	Analysis	8081B		1	799574	FAM	EET EDI	09/03/21 10:22
Total/NA	Prep	3546			799523	ARA	EET EDI	09/02/21 18:02
Total/NA	Analysis	8082A		1	799594	JHP	EET EDI	09/03/21 10:43
Total/NA	Prep	8151A			799565	AFR	EET EDI	09/03/21 00:14
Total/NA	Analysis	8151A		1	800026	JHP	EET EDI	09/07/21 16:00
Total/NA	Prep	SHAKE			167873	X4HV	ELLE	09/03/21 11:51
Total/NA	Cleanup	Extract Aliquot			167925	X4HV	ELLE	09/03/21 13:55
Total/NA	Analysis	537 IDA		1	168179	UCD3	ELLE	09/05/21 19:21
Total/NA	Prep	3050B			800346	GMC	EET EDI	09/09/21 04:07
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 10:38
Total/NA	Prep	7471B			799944	TJS	EET EDI	09/07/21 03:10
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 06:53
Total/NA	Prep	3060A			801694	VBG	EET EDI	09/16/21 19:45 - 09/17/21 22:00 ¹
Total/NA	Analysis	7196A		1	801883	RAK	EET EDI	09/17/21 15:10
Total/NA	Prep	3060A			803453	VBG	EET EDI	09/25/21 11:10 - 09/25/21 12:10 ¹
Total/NA	Analysis	7196A		1	803492	OXG	EET EDI	09/26/21 19:05
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:45

Client Sample ID: 066_TB-2B

Date Collected: 08/31/21 08:00

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-29

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	799733	KLB	EET EDI	09/04/21 00:22

Client Sample ID: 067_FB-2

Date Collected: 08/31/21 07:30

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	799733	KLB	EET EDI	09/04/21 00:43

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 067_FB-2

Date Collected: 08/31/21 07:30

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			799454	ZEH	EET EDI	09/02/21 10:25
Total/NA	Analysis	8270E		1	799369	DAN	EET EDI	09/03/21 03:42
Total/NA	Prep	3510C			799242	DXD	EET EDI	09/01/21 23:00
Total/NA	Analysis	8270E SIM ID		1	799453	CAZ	EET EDI	09/02/21 14:26
Total/NA	Prep	3510C			799434	DXD	EET EDI	09/02/21 08:19
Total/NA	Analysis	8081B		1	799389	FAM	EET EDI	09/02/21 17:39
Total/NA	Prep	3510C			799432	DXD	EET EDI	09/02/21 08:11
Total/NA	Analysis	8082A		1	799400	JHP	EET EDI	09/02/21 19:06
Total/NA	Prep	8151A			799563	AFR	EET EDI	09/03/21 00:11
Total/NA	Analysis	8151A		1	799671	JHP	EET EDI	09/03/21 15:31
Total/NA	Prep	537 IDA			167742	RDL8	ELLE	09/03/21 07:46
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/06/21 04:54
Total/NA	Prep	3010A			799818	SXC	EET EDI	09/04/21 10:04
Total/NA	Analysis	6020B		1	800062	YZH	EET EDI	09/07/21 19:11
Total/NA	Prep	7470A			800055	RBS	EET EDI	09/07/21 12:24
Total/NA	Analysis	7470A		1	800084	RBS	EET EDI	09/07/21 15:20
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	7196A		1	799829	OXG	EET EDI	09/04/21 11:45
Total/NA	Prep	9012B			799763	VBG	EET EDI	09/03/21 23:17
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 14:07

Client Sample ID: 068_FB-3

Date Collected: 08/31/21 08:30

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-31

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	799733	KLB	EET EDI	09/04/21 01:03
Total/NA	Prep	3510C			799454	ZEH	EET EDI	09/02/21 10:25
Total/NA	Analysis	8270E		1	799369	DAN	EET EDI	09/03/21 04:04
Total/NA	Prep	3510C			799242	DXD	EET EDI	09/01/21 23:00
Total/NA	Analysis	8270E SIM ID		1	799453	CAZ	EET EDI	09/02/21 14:42
Total/NA	Prep	3510C			799434	DXD	EET EDI	09/02/21 08:19
Total/NA	Analysis	8081B		1	799389	FAM	EET EDI	09/02/21 17:51
Total/NA	Prep	3510C			799432	DXD	EET EDI	09/02/21 08:11
Total/NA	Analysis	8082A		1	799400	JHP	EET EDI	09/02/21 19:26
Total/NA	Prep	8151A			799563	AFR	EET EDI	09/03/21 00:11
Total/NA	Analysis	8151A		1	799671	JHP	EET EDI	09/03/21 15:45
Total/NA	Prep	537 IDA			167742	RDL8	ELLE	09/03/21 07:46
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/06/21 05:05
Total/NA	Prep	3010A			799818	SXC	EET EDI	09/04/21 10:04
Total/NA	Analysis	6020B		1	800062	YZH	EET EDI	09/07/21 19:18
Total/NA	Prep	7470A			800055	RBS	EET EDI	09/07/21 12:24
Total/NA	Analysis	7470A		1	800084	RBS	EET EDI	09/07/21 15:22
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Client Sample ID: 068_FB-3

Date Collected: 08/31/21 08:30

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-31

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799829	OXG	EET EDI	09/04/21 11:45
Total/NA	Prep	9012B			799763	VBG	EET EDI	09/03/21 23:17
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 14:08

Client Sample ID: 069_FB-4

Date Collected: 08/31/21 12:45

Date Received: 09/01/21 18:00

Lab Sample ID: 460-241982-32

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	799733	KLB	EET EDI	09/04/21 01:24
Total/NA	Prep	3510C			799454	ZEH	EET EDI	09/02/21 10:29
Total/NA	Analysis	8270E		1	799369	DAN	EET EDI	09/03/21 04:25
Total/NA	Prep	3510C			799242	DXD	EET EDI	09/01/21 23:00
Total/NA	Analysis	8270E SIM ID		1	799453	CAZ	EET EDI	09/02/21 14:58
Total/NA	Prep	3510C			799434	DXD	EET EDI	09/02/21 08:19
Total/NA	Analysis	8081B		1	799389	FAM	EET EDI	09/02/21 18:04
Total/NA	Prep	3510C			799432	DXD	EET EDI	09/02/21 08:11
Total/NA	Analysis	8082A		1	799400	JHP	EET EDI	09/02/21 19:45
Total/NA	Prep	8151A			799563	AFR	EET EDI	09/03/21 00:11
Total/NA	Analysis	8151A		1	799671	JHP	EET EDI	09/03/21 16:00
Total/NA	Prep	537 IDA			167742	RDL8	ELLE	09/03/21 07:46
Total/NA	Analysis	537 IDA		1	168140	UCD3	ELLE	09/06/21 05:16
Total/NA	Prep	3010A			799818	SXC	EET EDI	09/04/21 10:04
Total/NA	Analysis	6020B		1	800062	YZH	EET EDI	09/07/21 19:20
Total/NA	Prep	7470A			800055	RBS	EET EDI	09/07/21 12:24
Total/NA	Analysis	7470A		1	800084	RBS	EET EDI	09/07/21 15:24
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/08/21 16:00
Total/NA	Analysis	7196A		1	799829	OXG	EET EDI	09/04/21 11:45
Total/NA	Prep	9012B			799763	VBG	EET EDI	09/03/21 23:17
Total/NA	Analysis	9012B		1	799930	VBG	EET EDI	09/05/21 14:09

* Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	12-09-21
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
7196A		Water	Cr (III)
8270E	3510C	Water	3 & 4 Methylphenol
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	10-12-21
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-00660	08-08-22
California	State	2792	01-31-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-10-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	10-12-21
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	10-19-21
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-21
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-16-22
Massachusetts	State	M-PA009	10-17-21
Michigan	State	9930	09-29-21
Minnesota	NELAP	042-999-487	11-04-21
Missouri	State	450	11-09-21
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	09-19-21
New York	NELAP	10670	10-11-21
North Carolina (DW)	State	42705	06-30-22
North Carolina (WW/SW)	State	521	12-31-21

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	09-28-21
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-30-22
Texas	NELAP	T104704194-22-43	10-14-21
USDA	US Federal Programs	P330-19-00197	07-03-22
Vermont	State	VT - 36037	10-27-21
Virginia	NELAP	460182	10-25-21
Washington	State	C457	04-11-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	09-30-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET EDI
8270E SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET EDI
8081B	Organochlorine Pesticides (GC)	SW846	EET EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET EDI
8151A	Herbicides (GC)	SW846	EET EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	EET EDI
7470A	Mercury (CVAA)	SW846	EET EDI
7471B	Mercury (CVAA)	SW846	EET EDI
7196A	Chromium, Hexavalent	SW846	EET EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	EET EDI
9012B	Cyanide, Total and/or Amenable	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET EDI
3010A	Preparation, Total Metals	SW846	EET EDI
3050B	Preparation, Metals	SW846	EET EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET EDI
3546	Microwave Extraction	SW846	EET EDI
5030C	Purge and Trap	SW846	EET EDI
5035	Closed System Purge and Trap	SW846	EET EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
7470A	Preparation, Mercury	SW846	EET EDI
7471B	Preparation, Mercury	SW846	EET EDI
8151A	Extraction (Herbicides)	SW846	EET EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-241982-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-241982-1	038_LB-49-8-10	Solid	08/31/21 08:50	09/01/21 18:00
460-241982-2	039_LB-49-15-16	Solid	08/31/21 09:00	09/01/21 18:00
460-241982-3	040_LB-48-5-7	Solid	08/31/21 10:00	09/01/21 18:00
460-241982-4	041_LB-48-15-16	Solid	08/31/21 10:10	09/01/21 18:00
460-241982-5	042_LB-47-15-16	Solid	08/31/21 11:00	09/01/21 18:00
460-241982-6	043_HS-2-8-10	Solid	08/31/21 11:45	09/01/21 18:00
460-241982-7	044_HS-2-10-12	Solid	08/31/21 11:55	09/01/21 18:00
460-241982-8	045_LB-27-6-8	Solid	08/31/21 12:20	09/01/21 18:00
460-241982-9	046_LB-27-15-16	Solid	08/31/21 12:30	09/01/21 18:00
460-241982-10	047_HS-1-8-10	Solid	08/31/21 13:00	09/01/21 18:00
460-241982-11	048_HS-1-10-12	Solid	08/31/21 13:30	09/01/21 18:00
460-241982-12	049_LB-31-5-7	Solid	08/31/21 15:00	09/01/21 18:00
460-241982-13	050_LB-31-15-16	Solid	08/31/21 15:05	09/01/21 18:00
460-241982-14	051_LB-32-5-7	Solid	08/31/21 15:10	09/01/21 18:00
460-241982-15	052_LB-32-15-16	Solid	08/31/21 15:10	09/01/21 18:00
460-241982-16	053_LB-33-5-7	Solid	08/31/21 15:15	09/01/21 18:00
460-241982-17	054_LB-33-15-16	Solid	08/31/21 15:25	09/01/21 18:00
460-241982-18	055_LB-34-5-7	Solid	08/31/21 16:00	09/01/21 18:00
460-241982-19	056_LB-34-15-16	Solid	08/31/21 16:05	09/01/21 18:00
460-241982-20	057_LB-46-15-16	Solid	08/31/21 16:10	09/01/21 18:00
460-241982-21	058_LB-45-11-13	Solid	08/31/21 16:15	09/01/21 18:00
460-241982-22	059_LB-45-15-16	Solid	08/31/21 16:20	09/01/21 18:00
460-241982-23	060_LB-44-8-10	Solid	08/31/21 16:20	09/01/21 18:00
460-241982-24	061_LB-44-15-16	Solid	08/31/21 16:30	09/01/21 18:00
460-241982-25	062_LB-43-9-11	Solid	08/31/21 17:30	09/01/21 18:00
460-241982-26	063_LB-43-15-16	Solid	08/31/21 17:35	09/01/21 18:00
460-241982-27	064_LB-42-5-7	Solid	08/31/21 18:00	09/01/21 18:00
460-241982-28	065_LB-42-15-16	Solid	08/31/21 18:00	09/01/21 18:00
460-241982-29	066_TB-2B	Water	08/31/21 08:00	09/01/21 18:00
460-241982-30	067_FB-2	Water	08/31/21 07:30	09/01/21 18:00
460-241982-31	068_FB-3	Water	08/31/21 08:30	09/01/21 18:00
460-241982-32	069_FB-4	Water	08/31/21 12:45	09/01/21 18:00

9/20/2022

Chain of Custody Record 518506

2455 Third Ave

Regulatory Program: EPA NSDEC

Project Manager: N. F. G. Date: 8/13/21

Site Contact: M. R. P. Date: 8/13/21

Lab Contact: M. R. P. Date: 8/13/21

Carrier: M. R. P. Date: 8/13/21

Client Name: M. R. P. Date: 8/13/21

Address: M. R. P. Date: 8/13/21

City: M. R. P. Date: 8/13/21

State: M. R. P. Date: 8/13/21

Zip: M. R. P. Date: 8/13/21

Phone: M. R. P. Date: 8/13/21

Fax: M. R. P. Date: 8/13/21

E-mail: M. R. P. Date: 8/13/21

Analyst: M. R. P. Date: 8/13/21

Method: M. R. P. Date: 8/13/21

Matrix: M. R. P. Date: 8/13/21

Sample Type: M. R. P. Date: 8/13/21

Sample Date: M. R. P. Date: 8/13/21

Sample Time: M. R. P. Date: 8/13/21

Sample Location: M. R. P. Date: 8/13/21

Sample ID: M. R. P. Date: 8/13/21

Sample Description: M. R. P. Date: 8/13/21

Sample Volume: M. R. P. Date: 8/13/21

Sample Weight: M. R. P. Date: 8/13/21

Sample Temperature: M. R. P. Date: 8/13/21

Sample pH: M. R. P. Date: 8/13/21

Sample Conductivity: M. R. P. Date: 8/13/21

Sample Turbidity: M. R. P. Date: 8/13/21

Sample Color: M. R. P. Date: 8/13/21

Sample Dissolved Solids: M. R. P. Date: 8/13/21

Sample Total Solids: M. R. P. Date: 8/13/21

Sample Volatile Solids: M. R. P. Date: 8/13/21

Sample Fixed Solids: M. R. P. Date: 8/13/21

Sample Organic Solids: M. R. P. Date: 8/13/21

Sample Inorganic Solids: M. R. P. Date: 8/13/21

Sample Suspended Solids: M. R. P. Date: 8/13/21

Sample Dissolved Solids: M. R. P. Date: 8/13/21

Sample Total Solids: M. R. P. Date: 8/13/21

Sample Volatile Solids: M. R. P. Date: 8/13/21

Sample Fixed Solids: M. R. P. Date: 8/13/21

Sample Organic Solids: M. R. P. Date: 8/13/21

Sample Inorganic Solids: M. R. P. Date: 8/13/21

Sample Suspended Solids: M. R. P. Date: 8/13/21

Sample Identification		Sample Date	Sample Time	Sample Type	Sample Location	Sample ID	Sample Description	Sample Volume	Sample Weight	Sample Temperature	Sample pH	Sample Conductivity	Sample Turbidity	Sample Color	Sample Dissolved Solids	Sample Total Solids	Sample Volatile Solids	Sample Fixed Solids	Sample Organic Solids	Sample Inorganic Solids	Sample Suspended Solids
050/18-31-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
051/18-32-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
052/18-32-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
053/18-33-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
054/18-33-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
055/18-34-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
056/18-34-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
057/18-34-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
058/18-34-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
059/18-34-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10
060/18-34-15-16		8/13/21	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10	15:10

150

Chain of Custody Record

63
 64
 65
 66
 67
 68

Regulatory Program: <u>100' LEADS</u> <u>100' LEADS</u> <u>100' LEADS</u>									
Company Name		Client Contact		Project Manager		Site Contact		Date	
Address		Phone		Fax		Lab Contact		Date	
City/State/Zip		City/State/Zip		City/State/Zip		City/State/Zip		City/State/Zip	
Project Name		Project Number		Project Description		Project Location		Project Status	
Project Status		Project Status		Project Status		Project Status		Project Status	
Project Status		Project Status		Project Status		Project Status		Project Status	
Sample Identification				Sample Date	Sample Time	Sample Type (e.g., Soil)	Sample Matrix	Sample Size	Sample ID
06/21/88-43-8-11				06/21/88	1730	Soil	Soil	15	06/21/88-43-8-11
06/23/88-43-15-46				06/23/88	1735	Soil	Soil	15	06/23/88-43-15-46
06/24/88-42-5-7				06/24/88	1730	Soil	Soil	15	06/24/88-42-5-7
06/24/88-42-15-16				06/24/88	1730	Soil	Soil	15	06/24/88-42-15-16
06/25/88-28				06/25/88	1730	Soil	Soil	15	06/25/88-28
06/27/88-2				06/27/88	1730	Soil	Soil	15	06/27/88-2
06/29/88-3				06/29/88	1730	Soil	Soil	15	06/29/88-3
06/29/88-4				06/29/88	1730	Soil	Soil	15	06/29/88-4
06/29/88-5				06/29/88	1730	Soil	Soil	15	06/29/88-5
06/29/88-6				06/29/88	1730	Soil	Soil	15	06/29/88-6
06/29/88-7				06/29/88	1730	Soil	Soil	15	06/29/88-7
06/29/88-8				06/29/88	1730	Soil	Soil	15	06/29/88-8
06/29/88-9				06/29/88	1730	Soil	Soil	15	06/29/88-9
06/29/88-10				06/29/88	1730	Soil	Soil	15	06/29/88-10
06/29/88-11				06/29/88	1730	Soil	Soil	15	06/29/88-11
06/29/88-12				06/29/88	1730	Soil	Soil	15	06/29/88-12
06/29/88-13				06/29/88	1730	Soil	Soil	15	06/29/88-13
06/29/88-14				06/29/88	1730	Soil	Soil	15	06/29/88-14
06/29/88-15				06/29/88	1730	Soil	Soil	15	06/29/88-15
06/29/88-16				06/29/88	1730	Soil	Soil	15	06/29/88-16
06/29/88-17				06/29/88	1730	Soil	Soil	15	06/29/88-17
06/29/88-18				06/29/88	1730	Soil	Soil	15	06/29/88-18
06/29/88-19				06/29/88	1730	Soil	Soil	15	06/29/88-19
06/29/88-20				06/29/88	1730	Soil	Soil	15	06/29/88-20
06/29/88-21				06/29/88	1730	Soil	Soil	15	06/29/88-21
06/29/88-22				06/29/88	1730	Soil	Soil	15	06/29/88-22
06/29/88-23				06/29/88	1730	Soil	Soil	15	06/29/88-23
06/29/88-24				06/29/88	1730	Soil	Soil	15	06/29/88-24
06/29/88-25				06/29/88	1730	Soil	Soil	15	06/29/88-25
06/29/88-26				06/29/88	1730	Soil	Soil	15	06/29/88-26
06/29/88-27				06/29/88	1730	Soil	Soil	15	06/29/88-27
06/29/88-28				06/29/88	1730	Soil	Soil	15	06/29/88-28
06/29/88-29				06/29/88	1730	Soil	Soil	15	06/29/88-29
06/29/88-30				06/29/88	1730	Soil	Soil	15	06/29/88-30
06/29/88-31				06/29/88	1730	Soil	Soil	15	06/29/88-31
06/29/88-32				06/29/88	1730	Soil	Soil	15	06/29/88-32
06/29/88-33				06/29/88	1730	Soil	Soil	15	06/29/88-33
06/29/88-34				06/29/88	1730	Soil	Soil	15	06/29/88-34
06/29/88-35				06/29/88	1730				

Chain of Custody Record 518505

Page 11030 of 11050

2576

Chain of Custody Record







[illegible]

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Chain of Custody Record

518504



Environment Testing
TestAmerica

9/20/2022

Address: 2455 Third Ave, Bronx NY

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: NYSDEC

241982

Client Contact		Project Manager: Armwida Fesbyug		Site Contact: M. McBride		Date: 8/31/21		COC No: 1 of 3	
Company Name: Langan		Tel/Email: 973-560-4574		Lab Contact: P. Gricco		Carrier: 875-56		Sampler: 1	
Address: 300 Kimmel Dr		Analysis Turnaround Time		Subpart 375-6		Metals (including hexavalent and trivalent chromium)		For Lab Use Only:	
City/State/Zip: Rutherford, NJ 07054		☐ CALENDAR DAYS ☐ WORKING DAYS		PCBs		Cyanide		Walk-in Client:	
Phone: 973-560-4574		TAT if different from Below		Pesticides		Metals (including hexavalent and trivalent chromium)		Lab Sampling:	
Fax: 973-560-4574		2 weeks		Herbicides		PFAS		Job / SDG No.:	
Project Name: 2455 Third Ave		1 week		Cyanide		1,4-dioxane		Sample Spec	
Site: 1900 51701		2 days		Metals (including hexavalent and trivalent chromium)					
PO #		1 day		Perform MS / MSD (Y / N)					
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)		
038 / LB-49-B-10	8/31/21	0850	6G	S	8	2	X	N/A	
039 / LB-49-B-15-16		0900	6G	S	8	2	X	N/A	
040 / LB-48-B-5-7		1000		S	8	2	X	N/A	
041 / LB-48-B-15-16		1010		S	24	1	X	N/A	
042 / LB-47-B-15-16		1100		S	8	2	X	N/A	
043 / HS-2-B-10		1145		S	8	2	X	N/A	
044 / HS-2-10-12		1155		S	24	1	X	N/A	
045 / LB-27-B-6-B		1220		S	8	2	X	N/A	
046 / LB-27-B-15-16		1230		S	24	1	X	N/A	
047 / HS-1-B-16		1300		S	8	2	X	N/A	
048 / HS-1-10-12		1500		S	8	2	X	N/A	
049 / LB-31-S-7		1500		S	8	2	X	N/A	
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Return to Client ☐ Dispose by Lab ☐ Archive for Months									
Special Instructions/QC Requirements & Comments: ASP B and NYSDEC EDD / All samples were kept frozen and on ice overnight									
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C) Obsd.:		Corrd.:		Therm ID No.:	
Relinquished by: Morgan McBride		Company: Langan		Date/Time: 9/1/21		Received by: Jeanette Arena		Company: Imhoff & Lewis	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:	

460-241982 Chain of Custody



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: WYSDC

Company Name: Address: City/State/Zip: Phone: Fax:		Client Contact		Project Manager: A. Forsburg Tel/Email: 973-560-4574		Site Contact: M. McBride Lab Contact: P. Grieco		Date: 8/31/21 Carrier:		COC No: 2 of 3 COCs	
Analysis Turnaround Time ☐ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Project Name:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site:		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
P.O.#		Sample Identification		Sample Date							

Job Number:

791982

Number of Coolers:

IR Gun #

Cooler Temperatures

	RAW	CORRECTED
Cooler #1	4.40	3.90
Cooler #2	4.20	3.70
Cooler #3	6.40	5.90
Cooler #4	5.00	4.50
Cooler #5	4.50	4.00
Cooler #6	4.70	4.20
Cooler #7		
Cooler #8		
Cooler #9		

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials:

Date:

21

1000



Environment Testing America

Client Information (Sub Contract Lab)				Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:											
Client Contact:				Phone:		Grieco, Patricia		E-Mail:		460-62752.1											
Shipping/Receiving						Patricia.Grieco@Eurofinset.com		State of Origin:		Page:											
Company:								New York		Page 1 of 4											
Eurofins Lancaster Laboratories Environm						Accreditations Required (See note):		NELAP - New York		Job #:											
Address:				Due Date Requested:		Analysis Requested						Preservation Codes:									
2425 New Holland Pike,				9/13/2021																	
City:				TAT Requested (days):																	
Lancaster																					
State, Zip:																					
PA, 17601				PO #:		Total Number of containers						Other:									
Phone:				WO #:																	
717-656-2300(Tel)																					
Email:																					
Project Name:				Project #:																	
2455 Third Avenue , Bronx, NY				46035981																	
Site:				SSOW#																	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=water/soil, BT=Tissue, AA=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		PFC_IDA/Shake_Bath_14D NY 21 PFAS		PFC_IDA/J3535_PFC NY 21 PFAS		Special Instructions/Note:	
038/LB-49-8-10 (460-241982-1)				8/31/21		08:50 Eastern				Solid				X						1	
039/LB-49-15-16 (460-241982-2)				8/31/21		09:00 Eastern				Solid				X						1	
040/LB-48-5-7 (460-241982-3)				8/31/21		10:00 Eastern				Solid				X						1	
041/LB-48-15-16 (460-241982-4)				8/31/21		10:10 Eastern				Solid				X						1	
042/LB-47-15-16 (460-241982-5)				8/31/21		11:00 Eastern				Solid				X						1	
042/LB-47-15-16 (460-241982-5MS)				8/31/21		11:00 Eastern		MS		Solid				X						1	
042/LB-47-15-16 (460-241982-5MSD)				8/31/21		11:00 Eastern		MSD		Solid				X						1	
043/HS-2-8-10 (460-241982-6)				8/31/21		11:45 Eastern				Solid				X						1	
044/HS-2-10-12 (460-241982-7)				8/31/21		11:55 Eastern				Solid				X						1	
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.																					
Possible Hazard Identification												Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Unconfirmed												☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months									
Deliverable Requested: I, II, III, IV, Other (specify)												Special Instructions/QC Requirements:									
Empty Kit Relinquished by:												Date:									
Retinquished by: _____												Time:									
Retinquished by: _____												Method of Shipment:									
Retinquished by: _____												Date/Time: 9/2/21 1800									
Retinquished by: _____												Date/Time: 9/2/21 2115									
Retinquished by: _____												Date/Time: 9/2/21 2115									
Custody Seals Intact: ☐ Yes ☐ No												Custody Seal No.:									
Cooler Temperature(s) °C and Other Remarks: 2.7																					

Eurofins TestAmerica, Edison

777 New Durham Road

Edison, NJ 08817

Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Environment Testing
America

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Grieco, Patricia		Carrier Tracking No(s):		COC No. 460-62752.3	
Client Contact:		Phone:		E-Mail: Patricia.Grieco@Eurofinset.com		State of Origin: New York		Page: Page 3 of 4	
Shipping/Receiving				Accreditations Required (See note): NELAP - New York				Job #: 460-241982-1	
Company: Eurofins Lancaster Laboratories Environm				Address: 2425 New Holland Pike,				Due Date Requested: 9/13/2021	
City: Lancaster				TAT Requested (days):				Analysis Requested	
State, Zip: PA, 17801				PO #:				Preservation Codes:	
Phone: 717-656-2300(Tel)				WC #:				A - HCL M - Hexane	
Email:				Project #: 46035981				B - NaOH N - None	
Project Name: 2455 Third Avenue, Bronx, NY				SSOW#:				C - Zn Acetate O - AsNaO2	
Site:				Sample Date				D - Nitric Acid P - Na2O4S	
Sample Identification - Client ID (Lab ID)				Sample Time				E - NaHSO4 Q - Na2SO3	
Sample Type (C=comp, G=grab)				Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)				F - MeOH R - Na2S2O3	
Preservation Code				Field Filtered Sample (Yes or No)				G - Amchlpr S - H2SO4	
				Perform MS/MSO (Yes or No)				H - Ascorbic Acid T - TSP Dodecahydrate	
				PFC_IDA/Shake_Bath_14D NY 21 PFAS				I - Ice U - Acetone	
				PFC_IDA/3635_PFC NY 21 PFAS				J - DI Water V - MCAA	
								K - EDTA W - pH 4-5	
								L - EDA Z - other (specify)	
								Other:	
								Special Instructions/Note:	
052/LB-32-15-16 (460-241982-15)				8/31/21 15:10 Eastern				Solid	
053/LB-33-5-7 (460-241982-16)				8/31/21 15:15 Eastern				Solid	
054/LB-33-15-16 (460-241982-17)				8/31/21 15:25 Eastern				Solid	
055/LB-34-5-1 (460-241982-18)				8/31/21 16:00 Eastern				Solid	
056/LB-34-15-16 (460-241982-19)				8/31/21 16:05 Eastern				Solid	
057/LB-46-15-16 (460-241982-20)				8/31/21 16:10 Eastern				Solid	
058/LB-45-13-11 (460-241982-21)				8/31/21 16:15 Eastern				Solid	
059/LB-45-15-16 (460-241982-22)				8/31/21 16:20 Eastern				Solid	
061/LB-44-15-16 (460-241982-24)				8/31/21 16:30 Eastern				Solid	
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Primary Deliverable Rank: 4				
Empty Kit Relinquished by:					Special Instructions/QC Requirements:				
Date:					Time:				
Relinquished by:					Received by:				
Date/Time: 9/2/21					Date/Time: 9/2/21 2115				
Company: EETA					Company: EETA				
Relinquished by:					Received by:				
Date/Time:					Date/Time:				
Company:					Company:				
Relinquished by:					Received by:				
Date/Time:					Date/Time:				
Company:					Company:				
Custody Seals Intact: Δ Yes Δ No					Cooler Temperature(s) °C and Other Remarks: 2.7				
Custody Seal No.:									

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-241982-1

Login Number: 241982

List Number: 1

Creator: Sgro, Angela M

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-241982-1

Login Number: 241982

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 2

List Creation: 09/02/21 10:50 PM

Creator: Metzger, Katherine A

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

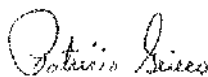
Laboratory Job ID: 460-242115-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

9/20/2022 12:26:54 PM

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



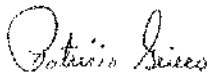
Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
9/20/2022 12:26:54 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	11
Client Sample Results	15
Surrogate Summary	55
Isotope Dilution Summary	58
QC Sample Results	61
QC Association Summary	98
Lab Chronicle	108
Certification Summary	116
Method Summary	118
Sample Summary	119
Chain of Custody	120
Receipt Checklists	128



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	Duplicate RPD exceeds control limits
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
*	ISTD response or retention time outside acceptable limits
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Job ID: 460-242115-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-242115-1

Revision #1: Revise All Sample IDs - COC Provided

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 09/02/2021; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.5° C, 1.5° C and 1.5° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 09/03/2021 and analyzed on 09/07/2021.

The sample size used in the preparation of the matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 460-799722 and 460-799722 and analytical batch 460-799947 was outside the 10% difference. As the relative percent difference (RPD) calculation is based upon the MS/MSD concentration as opposed to the MS/MSD percent recovery, elevated %RPD values were obtained.

Several analytes failed the recovery criteria low for the MSD of sample 080/LB-44_8-10MSD (460-242115-11) in batch 460-799947. Several analytes exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Job ID: 460-242115-1 (Continued)

Laboratory: Eurofins Edison (Continued)

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 081/TB-4 (460-242115-12) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 09/04/2021.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 09/04/2021 and analyzed on 09/04/2021, 09/05/2021 and 09/06/2021.

Chrysene failed the recovery criteria low for LCS 460-799848/2-A. Refer to the QC report for details.

1,4-Dioxane, Benzo[a]anthracene and Chrysene failed the recovery criteria low for the MS of sample 080/LB-44_8-10MS (460-242115-11) in batch 460-799863.

Several analytes failed the recovery criteria low for the MSD of sample 080/LB-44_8-10MSD (460-242115-11) in batch 460-799863. Naphthalene exceeded the RPD limit.

Internal standard (ISTD) response for the following sample was outside control limits: 076/LB-41_5-7 (460-242115-7). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 09/04/2021 and analyzed on 09/07/2021.

4,4'-DDT failed the recovery criteria high for the MSD of sample 080/LB-44_8-10MSD (460-242115-11) in batch 460-799955.

Refer to the QC report for details.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 09/04/2021 and analyzed on 09/05/2021.

DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 070/LB-38_16-17 (460-242115-1). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 080/LB-44_8-10 (460-242115-11). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 071/DUP-2 (460-242115-2). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 072/LB-39_15-16 (460-242115-3). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 073/DUP-3 (460-242115-4). DCB

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Job ID: 460-242115-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Decachlorobiphenyl failed the surrogate recovery criteria high for 074/LB-40_5-7 (460-242115-5). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 075/LB-40_15-16 (460-242115-6). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 076/LB-41_5-7 (460-242115-7). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 077/LB-41_15-16 (460-242115-8). Refer to the QC report for details.

Aroclor 1016 and Aroclor 1260 failed the recovery criteria high for the MS of sample 080/LB-44_8-10MS (460-242115-11) in batch 460-799904.

Aroclor 1016 and Aroclor 1260 failed the recovery criteria high for the MSD of sample 080/LB-44_8-10MSD (460-242115-11) in batch 460-799904.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 09/08/2021 and analyzed on 09/09/2021.

Silvex (2,4,5-TP) failed the recovery criteria high for the MS of sample 080/LB-44_8-10MS (460-242115-11) in batch 460-800372.

Refer to the QC report for details.

No other difficulties were encountered during the herbicides analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8), 078/LB-42_5-7 (460-242115-9), 080/LB-44_8-10 (460-242115-11) and 082/LB-43_9-11 (460-242115-13) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 09/07/2021 and analyzed on 09/10/2021.

The recovery for labeled isotope: M2-8:2 FTS, d3-NMeFOSAA, and d5-NEtFOSAA were outside the QC acceptance limits in the opening continuing calibration verification standard. Since the recoveries for the labeled isotopes were within QC limits in the following samples: 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8), 078/LB-42_5-7 (460-242115-9) and 080/LB-44_8-10 (460-242115-11), the data is reported.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared and analyzed on 09/09/2021.

No other difficulties were encountered during the metals analysis.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Job ID: 460-242115-1 (Continued)

Laboratory: Eurofins Edison (Continued)

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared and analyzed on 09/14/2021 and 09/18/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 09/07/2021.

No other difficulties were encountered during the Hg analysis.

All other quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 09/07/2021 and 09/12/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8) and 080/LB-44_8-10 (460-242115-11) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 09/05/2021 and analyzed on 09/06/2021.

Cyanide, Total failed the recovery criteria high for the MSD of sample 080/LB-44_8-10MSD (460-242115-11) in batch 460-799943.

Cyanide, Total failed the recovery criteria high for the MSD of sample 080/LB-44_8-10MSD (460-242115-11) in batch 460-799943.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 070/LB-38_16-17 (460-242115-1), 071/DUP-2 (460-242115-2), 072/LB-39_15-16 (460-242115-3), 073/DUP-3 (460-242115-4), 074/LB-40_5-7 (460-242115-5), 075/LB-40_15-16 (460-242115-6), 076/LB-41_5-7 (460-242115-7), 077/LB-41_15-16 (460-242115-8), 078/LB-42_5-7 (460-242115-9), 080/LB-44_8-10 (460-242115-11) and 082/LB-43_9-11 (460-242115-13) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 09/07/2021 and 09/15/2021.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Job ID: 460-242115-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Sample 079/FB-5 (460-242115-10) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA. The samples were prepared on 09/08/2021 and analyzed on 09/14/2021.

No difficulties were encountered during the Per- and Polyfluoroalkyl Substances (PFAS) analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 070_LB-38_16-17

Lab Sample ID: 460-242115-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.3		6.3	6.0	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	3.9		2.1	1.2	ug/Kg	1	✱	8260D	Total/NA
Arsenic	0.93	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	15.9		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.18	J	0.46	0.066	mg/Kg	1	✱	6020B	Total/NA
Chromium	6.7		2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	5.8		2.3	0.26	mg/Kg	1	✱	6020B	Total/NA
Manganese	286		4.6	0.47	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.6		2.3	0.23	mg/Kg	1	✱	6020B	Total/NA
Lead	2.3		0.70	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	13.8		9.3	2.7	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.011	J	0.020	0.0047	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	6.7		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 071_DUP-2

Lab Sample ID: 460-242115-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.95	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	8.5		2.5	0.18	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.18	J	0.49	0.070	mg/Kg	1	✱	6020B	Total/NA
Chromium	5.1		2.5	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	5.2		2.5	0.27	mg/Kg	1	✱	6020B	Total/NA
Manganese	189		4.9	0.49	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.0		2.5	0.24	mg/Kg	1	✱	6020B	Total/NA
Lead	2.5		0.74	0.25	mg/Kg	1	✱	6020B	Total/NA
Zinc	18.7		9.8	2.8	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.012	J	0.021	0.0049	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	5.1		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 072_LB-39_15-16

Lab Sample ID: 460-242115-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.9		6.5	6.2	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	2.7		2.2	1.2	ug/Kg	1	✱	8260D	Total/NA
Arsenic	1.5		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	14.9		2.4	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.19	J	0.48	0.069	mg/Kg	1	✱	6020B	Total/NA
Chromium	10.1		2.4	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	7.1		2.4	0.26	mg/Kg	1	✱	6020B	Total/NA
Manganese	170		4.8	0.49	mg/Kg	1	✱	6020B	Total/NA
Nickel	7.4		2.4	0.23	mg/Kg	1	✱	6020B	Total/NA
Lead	3.0		0.72	0.24	mg/Kg	1	✱	6020B	Total/NA
Zinc	16.5		9.6	2.8	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.011	J	0.020	0.0047	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	10.1		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 073_DUP-3

Lab Sample ID: 460-242115-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.7		2.7	2.6	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	1.2		0.90	0.52	ug/Kg	1	✱	8260D	Total/NA
Arsenic	1.3		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 073_DUP-3 (Continued)

Lab Sample ID: 460-242115-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	11.7		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.19	J	0.45	0.064	mg/Kg	1	✱	6020B	Total/NA
Chromium	9.3		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	5.9		2.2	0.25	mg/Kg	1	✱	6020B	Total/NA
Manganese	124		4.5	0.45	mg/Kg	1	✱	6020B	Total/NA
Nickel	6.7		2.2	0.22	mg/Kg	1	✱	6020B	Total/NA
Lead	2.9		0.67	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	15.4		8.9	2.6	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.011	J	0.018	0.0043	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	9.3		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 074_LB-40_5-7

Lab Sample ID: 460-242115-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	290	J	630	280	ug/Kg	50	✱	8260D	Total/NA
Benzene	80	J	130	25	ug/Kg	50	✱	8260D	Total/NA
Tetrachloroethene	1200		130	45	ug/Kg	50	✱	8260D	Total/NA
Toluene	430		130	31	ug/Kg	50	✱	8260D	Total/NA
Ethylbenzene	88	J	130	38	ug/Kg	50	✱	8260D	Total/NA
Xylenes, Total	750		250	35	ug/Kg	50	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	250		130	29	ug/Kg	50	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	92	J	130	31	ug/Kg	50	✱	8260D	Total/NA
N-Propylbenzene	79	J	130	36	ug/Kg	50	✱	8260D	Total/NA
n-Butylbenzene	48	J	130	34	ug/Kg	50	✱	8260D	Total/NA
Naphthalene	230	J	380	6.5	ug/Kg	1	✱	8270E	Total/NA
Acenaphthylene	40	J	380	3.8	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	240	J	380	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	230	J	380	5.3	ug/Kg	1	✱	8270E	Total/NA
Fluorene	230	J	380	5.1	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	2300		380	6.6	ug/Kg	1	✱	8270E	Total/NA
Anthracene	510		380	11	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	2400		380	13	ug/Kg	1	✱	8270E	Total/NA
Pyrene	2000		380	9.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]anthracene	880		38	13	ug/Kg	1	✱	8270E	Total/NA
Chrysene	860	*	380	6.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[b]fluoranthene	1000		38	9.7	ug/Kg	1	✱	8270E	Total/NA
Benzo[k]fluoranthene	450		38	7.4	ug/Kg	1	✱	8270E	Total/NA
Benzo[a]pyrene	910		38	10	ug/Kg	1	✱	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	650		38	15	ug/Kg	1	✱	8270E	Total/NA
Dibenz(a,h)anthracene	95		38	16	ug/Kg	1	✱	8270E	Total/NA
Benzo[g,h,i]perylene	530		380	11	ug/Kg	1	✱	8270E	Total/NA
4,4'-DDT	4.7	J	7.6	1.4	ug/Kg	1	✱	8081B	Total/NA
Silver	0.15	J	1.1	0.095	mg/Kg	1	✱	6020B	Total/NA
Arsenic	4.1		1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	79.4		2.1	0.15	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.37	J	0.43	0.061	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.32	J	1.1	0.12	mg/Kg	1	✱	6020B	Total/NA
Chromium	17.4		2.1	0.18	mg/Kg	1	✱	6020B	Total/NA
Copper	35.2		2.1	0.23	mg/Kg	1	✱	6020B	Total/NA
Manganese	290		4.3	0.43	mg/Kg	1	✱	6020B	Total/NA
Nickel	16.1		2.1	0.21	mg/Kg	1	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 074_LB-40_5-7 (Continued)

Lab Sample ID: 460-242115-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	234		0.64	0.21	mg/Kg	1	✱	6020B	Total/NA
Selenium	0.59	J	1.3	0.13	mg/Kg	1	✱	6020B	Total/NA
Zinc	139		8.5	2.4	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.011	J	0.018	0.0043	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	17.4		2.0	2.0	mg/Kg	1		7196A	Total/NA
Cyanide, Total	0.14	J	0.24	0.13	mg/Kg	1	✱	9012B	Total/NA

Client Sample ID: 075_LB-40_15-16

Lab Sample ID: 460-242115-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.5	J	5.6	5.3	ug/Kg	1	✱	8260D	Total/NA
Naphthalene	250	J	400	6.9	ug/Kg	1	✱	8270E	Total/NA
Acenaphthene	23	J	400	11	ug/Kg	1	✱	8270E	Total/NA
Dibenzofuran	37	J	400	5.6	ug/Kg	1	✱	8270E	Total/NA
Fluorene	31	J	400	5.4	ug/Kg	1	✱	8270E	Total/NA
Phenanthrene	98	J	400	7.0	ug/Kg	1	✱	8270E	Total/NA
Fluoranthene	26	J	400	14	ug/Kg	1	✱	8270E	Total/NA
Pyrene	18	J	400	9.9	ug/Kg	1	✱	8270E	Total/NA
Arsenic	0.70	J	1.1	0.11	mg/Kg	1	✱	6020B	Total/NA
Barium	12.5		2.2	0.16	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.12	J	0.44	0.063	mg/Kg	1	✱	6020B	Total/NA
Chromium	6.1		2.2	0.19	mg/Kg	1	✱	6020B	Total/NA
Copper	4.4		2.2	0.24	mg/Kg	1	✱	6020B	Total/NA
Manganese	96.9		4.4	0.44	mg/Kg	1	✱	6020B	Total/NA
Nickel	4.0		2.2	0.21	mg/Kg	1	✱	6020B	Total/NA
Lead	3.3		0.66	0.22	mg/Kg	1	✱	6020B	Total/NA
Zinc	9.8		8.8	2.5	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.011	J	0.020	0.0046	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	6.1		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 076_LB-41_5-7

Lab Sample ID: 460-242115-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.9	J	2.4	1.4	ug/Kg	1	✱	8260D	Total/NA
Tetrachloroethene	0.84	J	1.2	0.36	ug/Kg	1	✱	8260D	Total/NA
Perfluorooctanesulfonic acid	1.17		0.75	0.25	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	2.4		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	49.6		2.4	0.18	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.28	J	0.49	0.069	mg/Kg	1	✱	6020B	Total/NA
Cadmium	0.20	J	1.2	0.14	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.5		2.4	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	12.9		2.4	0.27	mg/Kg	1	✱	6020B	Total/NA
Manganese	434		4.9	0.49	mg/Kg	1	✱	6020B	Total/NA
Nickel	11.0		2.4	0.24	mg/Kg	1	✱	6020B	Total/NA
Lead	30.3		0.73	0.24	mg/Kg	1	✱	6020B	Total/NA
Zinc	50.4		9.7	2.8	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.037		0.020	0.0047	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	11.5		2.0	2.0	mg/Kg	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 077_LB-41_15-16

Lab Sample ID: 460-242115-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.70	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	13.7		2.4	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.13	J	0.48	0.068	mg/Kg	1	✱	6020B	Total/NA
Chromium	6.5		2.4	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	4.3		2.4	0.26	mg/Kg	1	✱	6020B	Total/NA
Manganese	241		4.8	0.48	mg/Kg	1	✱	6020B	Total/NA
Nickel	5.2		2.4	0.23	mg/Kg	1	✱	6020B	Total/NA
Lead	1.9		0.72	0.24	mg/Kg	1	✱	6020B	Total/NA
Zinc	11.6		9.6	2.7	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.012	J	0.020	0.0048	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	6.5		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 078_LB-42_5-7

Lab Sample ID: 460-242115-9

No Detections.

Client Sample ID: 079_FB-5

Lab Sample ID: 460-242115-10

No Detections.

Client Sample ID: 080_LB-44_8-10

Lab Sample ID: 460-242115-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid	0.44	J	0.67	0.22	ug/Kg	1	✱	537 IDA	Total/NA
Arsenic	1.5		1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	26.3		2.4	0.18	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.34	J	0.49	0.070	mg/Kg	1	✱	6020B	Total/NA
Chromium	10.9		2.4	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	6.1		2.4	0.27	mg/Kg	1	✱	6020B	Total/NA
Manganese	131		4.9	0.49	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.8		2.4	0.24	mg/Kg	1	✱	6020B	Total/NA
Lead	5.3		0.73	0.24	mg/Kg	1	✱	6020B	Total/NA
Zinc	28.8		9.8	2.8	mg/Kg	1	✱	6020B	Total/NA
Mercury	0.0061	J	0.020	0.0048	mg/Kg	1	✱	7471B	Total/NA
Cr (III)	10.9		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 081_TB-4

Lab Sample ID: 460-242115-12

No Detections.

Client Sample ID: 082_LB-43_9-11

Lab Sample ID: 460-242115-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid	0.66	J	0.70	0.23	ug/Kg	1	✱	537 IDA	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 070_LB-38_16-17

Lab Sample ID: 460-242115-1

Date Collected: 09/02/21 09:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.25	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,1-Dichloroethane	1.1	U	1.1	0.22	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,1-Dichloroethene	1.1	U	1.1	0.24	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,2,4-Trimethylbenzene	1.1	U	1.1	0.26	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,2-Dichlorobenzene	1.1	U	1.1	0.38	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,2-Dichloroethane	1.1	U	1.1	0.31	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,3,5-Trimethylbenzene	1.1	U	1.1	0.33	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,3-Dichlorobenzene	1.1	U	1.1	0.38	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,4-Dichlorobenzene	1.1	U	1.1	0.24	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
1,4-Dioxane	21	U	21	9.7	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
2-Butanone (MEK)	5.3	U	5.3	0.39	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Acetone	8.3		6.3	6.0	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Benzene	1.1	U	1.1	0.27	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Carbon tetrachloride	1.1	U	1.1	0.41	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Chlorobenzene	1.1	U	1.1	0.19	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Chloroform	1.1	U	1.1	1.0	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
cis-1,2-Dichloroethene	1.1	U	1.1	0.38	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Ethylbenzene	1.1	U	1.1	0.21	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Methyl tert-butyl ether	1.1	U	1.1	0.54	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Methylene Chloride	3.9		2.1	1.2	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
n-Butylbenzene	1.1	U	1.1	0.31	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
N-Propylbenzene	1.1	U	1.1	0.18	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
sec-Butylbenzene	1.1	U	1.1	0.30	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
tert-Butylbenzene	1.1	U	1.1	0.29	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Tetrachloroethene	1.1	U	1.1	0.32	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Toluene	1.1	U	1.1	0.25	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
trans-1,2-Dichloroethene	1.1	U	1.1	0.26	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Trichloroethene	1.1	U	1.1	0.34	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Vinyl chloride	1.1	U	1.1	0.57	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1
Xylenes, Total	2.1	U	2.1	0.68	ug/Kg	☆	09/03/21 16:55	09/07/21 12:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	130		77 - 145	09/03/21 16:55	09/07/21 12:14	1
4-Bromofluorobenzene	113		70 - 139	09/03/21 16:55	09/07/21 12:14	1
Dibromofluoromethane (Surr)	133		48 - 150	09/03/21 16:55	09/07/21 12:14	1
Toluene-d8 (Surr)	113		80 - 120	09/03/21 16:55	09/07/21 12:14	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	410	U	410	15	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
2-Methylphenol	410	U	410	15	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
3 & 4 Methylphenol	410	U	410	26	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
Pentachlorophenol	330	U	330	85	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
Naphthalene	410	U	410	7.2	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
Acenaphthylene	410	U	410	4.2	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
Acenaphthene	410	U	410	12	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
Dibenzofuran	410	U	410	5.8	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
Fluorene	410	U	410	5.6	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
Hexachlorobenzene	41	U	41	20	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1
Phenanthrene	410	U	410	7.3	ug/Kg	☆	09/04/21 16:35	09/04/21 22:46	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 070_LB-38_16-17

Lab Sample ID: 460-242115-1

Date Collected: 09/02/21 09:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	410	U	410	13	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Fluoranthene	410	U	410	14	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Pyrene	410	U	410	10	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Benzo[a]anthracene	41	U	41	14	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Chrysene	410	U *	410	7.0	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Benzo[b]fluoranthene	41	U	41	11	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Benzo[k]fluoranthene	41	U	41	8.1	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Benzo[a]pyrene	41	U	41	11	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Indeno[1,2,3-cd]pyrene	41	U	41	16	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Dibenz(a,h)anthracene	41	U	41	18	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
Benzo[g,h,i]perylene	410	U	410	12	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1
1,4-Dioxane	41	U	41	36	ug/Kg	✱	09/04/21 16:35	09/04/21 22:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	52		11 - 104	09/04/21 16:35	09/04/21 22:46	1
Phenol-d5 (Surr)	58		15 - 100	09/04/21 16:35	09/04/21 22:46	1
Terphenyl-d14 (Surr)	62		12 - 126	09/04/21 16:35	09/04/21 22:46	1
2,4,6-Tribromophenol (Surr)	55		10 - 123	09/04/21 16:35	09/04/21 22:46	1
2-Fluorophenol (Surr)	56		10 - 105	09/04/21 16:35	09/04/21 22:46	1
2-Fluorobiphenyl	50		14 - 103	09/04/21 16:35	09/04/21 22:46	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.4	U	8.4	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
4,4'-DDE	8.4	U	8.4	0.99	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
4,4'-DDT	8.4	U	8.4	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Aldrin	8.4	U	8.4	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
alpha-BHC	2.5	U	2.5	0.85	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
beta-BHC	2.5	U	2.5	0.94	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Chlordane (technical)	84	U	84	20	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
delta-BHC	2.5	U	2.5	0.51	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Dieldrin	2.5	U	2.5	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Endosulfan I	8.4	U	8.4	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Endosulfan II	8.4	U	8.4	2.2	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Endosulfan sulfate	8.4	U	8.4	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Endrin	8.4	U	8.4	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Endrin aldehyde	8.4	U	8.4	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Endrin ketone	8.4	U	8.4	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
gamma-BHC (Lindane)	2.5	U	2.5	0.78	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Heptachlor	8.4	U	8.4	0.99	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Heptachlor epoxide	8.4	U	8.4	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Methoxychlor	8.4	U	8.4	1.9	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
Toxaphene	84	U	84	30	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1
cis-Chlordane	8.4	U	8.4	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98		10 - 150	09/04/21 13:11	09/07/21 06:04	1
DCB Decachlorobiphenyl	105		10 - 150	09/04/21 13:11	09/07/21 06:04	1
Tetrachloro-m-xylene	73		10 - 133	09/04/21 13:11	09/07/21 06:04	1
Tetrachloro-m-xylene	74		10 - 133	09/04/21 13:11	09/07/21 06:04	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 070_LB-38_16-17

Lab Sample ID: 460-242115-1

Date Collected: 09/02/21 09:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Aroclor 1221	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Aroclor 1232	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Aroclor 1242	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Aroclor 1248	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Aroclor 1254	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Aroclor 1260	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Aroclor-1262	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Aroclor 1268	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1
Polychlorinated biphenyls, Total	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	149		37 - 150	09/04/21 13:08	09/05/21 15:21	1
DCB Decachlorobiphenyl	153	*	37 - 150	09/04/21 13:08	09/05/21 15:21	1
Tetrachloro-m-xylene	120		54 - 150	09/04/21 13:08	09/05/21 15:21	1
Tetrachloro-m-xylene	114		54 - 150	09/04/21 13:08	09/05/21 15:21	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	42	U	42	4.4	ug/Kg	✱	09/08/21 20:14	09/09/21 09:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	89		65 - 150	09/08/21 20:14	09/09/21 09:26	1
2,4-Dichlorophenylacetic acid	108		65 - 150	09/08/21 20:14	09/09/21 09:26	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluoroheptanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorooctanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorononanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorodecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorotridecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorotetradecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorobutanesulfonic acid	2.41	U	2.41	0.48	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorohexanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorooctanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
NEtFOSAA	2.41	U	2.41	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
NMeFOSAA	2.41	U	2.41	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluoroheptanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorodecanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorooctanesulfonamide	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorobutanoic acid	2.41	U	2.41	0.97	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluoroundecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluorododecanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
6:2 Fluorotelomer sulfonic acid	2.41	U	2.41	0.72	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
8:2 Fluorotelomer sulfonic acid	3.62	U	3.62	0.72	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1
Perfluoropentanoic acid	0.72	U	0.72	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:13	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	139		10 - 178	09/07/21 06:47	09/10/21 13:13	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 070_LB-38_16-17

Lab Sample ID: 460-242115-1

Date Collected: 09/02/21 09:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.7

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	141		10 - 182	09/07/21 06:47	09/10/21 13:13	1
13C5 PFHxA	120		11 - 138	09/07/21 06:47	09/10/21 13:13	1
13C4 PFHpA	117		15 - 139	09/07/21 06:47	09/10/21 13:13	1
13C8 PFOA	127		21 - 133	09/07/21 06:47	09/10/21 13:13	1
13C9 PFNA	114		15 - 145	09/07/21 06:47	09/10/21 13:13	1
13C6 PFDA	115		21 - 134	09/07/21 06:47	09/10/21 13:13	1
13C7 PFUnA	122		15 - 138	09/07/21 06:47	09/10/21 13:13	1
13C2-PFDoDA	117		28 - 126	09/07/21 06:47	09/10/21 13:13	1
13C2 PFTeDA	115		10 - 138	09/07/21 06:47	09/10/21 13:13	1
13C3 PFBS	123		23 - 130	09/07/21 06:47	09/10/21 13:13	1
13C3 PFHxS	117		24 - 136	09/07/21 06:47	09/10/21 13:13	1
13C8 PFOS	105		31 - 130	09/07/21 06:47	09/10/21 13:13	1
d3-NMeFOSAA	117		10 - 172	09/07/21 06:47	09/10/21 13:13	1
d5-NEtFOSAA	138		10 - 176	09/07/21 06:47	09/10/21 13:13	1
13C8 FOSA	111		25 - 135	09/07/21 06:47	09/10/21 13:13	1
13C4 PFBA	106		12 - 137	09/07/21 06:47	09/10/21 13:13	1
13C5 PFPeA	110		12 - 135	09/07/21 06:47	09/10/21 13:13	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.10	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Arsenic	0.93	J	1.2	0.12	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Barium	15.9		2.3	0.17	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Beryllium	0.18	J	0.46	0.066	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Chromium	6.7		2.3	0.20	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Copper	5.8		2.3	0.26	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Manganese	286		4.6	0.47	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Nickel	6.6		2.3	0.23	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Lead	2.3		0.70	0.23	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1
Zinc	13.8		9.3	2.7	mg/Kg	✱	09/09/21 04:11	09/09/21 13:12	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.020	0.0047	mg/Kg	✱	09/07/21 03:31	09/07/21 08:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	6.7		2.0	2.0	mg/Kg			09/07/21 07:27	1
Cr (VI)	2.5	U	2.5	1.1	mg/Kg	✱	09/18/21 08:32	09/18/21 12:46	1
Cyanide, Total	0.25	U	0.25	0.14	mg/Kg	✱	09/05/21 15:08	09/06/21 19:46	1
Percent Moisture	20.3		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	79.7		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 071_DUP-2

Lab Sample ID: 460-242115-2

Date Collected: 09/02/21 09:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,1-Dichloroethane	1.0	U	1.0	0.22	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,1-Dichloroethene	1.0	U	1.0	0.24	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.26	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,2-Dichlorobenzene	1.0	U	1.0	0.38	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,2-Dichloroethane	1.0	U	1.0	0.31	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,3-Dichlorobenzene	1.0	U	1.0	0.38	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,4-Dichlorobenzene	1.0	U	1.0	0.24	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
1,4-Dioxane	21	U	21	9.6	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
2-Butanone (MEK)	5.2	U	5.2	0.38	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Acetone	6.3	U	6.3	6.0	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Benzene	1.0	U	1.0	0.27	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Carbon tetrachloride	1.0	U	1.0	0.40	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Chlorobenzene	1.0	U	1.0	0.19	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Chloroform	1.0	U	1.0	1.0	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.37	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Ethylbenzene	1.0	U	1.0	0.21	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Methyl tert-butyl ether	1.0	U	1.0	0.54	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Methylene Chloride	2.1	U	2.1	1.2	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
n-Butylbenzene	1.0	U	1.0	0.31	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
sec-Butylbenzene	1.0	U	1.0	0.30	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
tert-Butylbenzene	1.0	U	1.0	0.29	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Tetrachloroethene	1.0	U	1.0	0.32	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Toluene	1.0	U	1.0	0.24	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Trichloroethene	1.0	U	1.0	0.34	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Vinyl chloride	1.0	U	1.0	0.57	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1
Xylenes, Total	2.1	U	2.1	0.67	ug/Kg	☆	09/03/21 16:56	09/07/21 12:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 145	09/03/21 16:56	09/07/21 12:36	1
4-Bromofluorobenzene	92		70 - 139	09/03/21 16:56	09/07/21 12:36	1
Dibromofluoromethane (Surr)	109		48 - 150	09/03/21 16:56	09/07/21 12:36	1
Toluene-d8 (Surr)	92		80 - 120	09/03/21 16:56	09/07/21 12:36	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	420	U	420	16	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
2-Methylphenol	420	U	420	16	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
3 & 4 Methylphenol	420	U	420	26	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
Pentachlorophenol	340	U	340	87	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
Naphthalene	420	U	420	7.3	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
Acenaphthylene	420	U	420	4.2	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
Acenaphthene	420	U	420	12	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
Dibenzofuran	420	U	420	5.9	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
Fluorene	420	U	420	5.7	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
Hexachlorobenzene	42	U	42	20	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1
Phenanthrene	420	U	420	7.4	ug/Kg	☆	09/04/21 16:35	09/04/21 23:09	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 071_DUP-2

Lab Sample ID: 460-242115-2

Date Collected: 09/02/21 09:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	420	U	420	13	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Fluoranthene	420	U	420	15	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Pyrene	420	U	420	10	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Benzo[a]anthracene	42	U	42	15	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Chrysene	420	U *	420	7.1	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Benzo[b]fluoranthene	42	U	42	11	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Benzo[k]fluoranthene	42	U	42	8.3	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Benzo[a]pyrene	42	U	42	11	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Indeno[1,2,3-cd]pyrene	42	U	42	16	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Dibenz(a,h)anthracene	42	U	42	18	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
Benzo[g,h,i]perylene	420	U	420	12	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1
1,4-Dioxane	42	U	42	37	ug/Kg	✱	09/04/21 16:35	09/04/21 23:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	54		11 - 104	09/04/21 16:35	09/04/21 23:09	1
Phenol-d5 (Surr)	60		15 - 100	09/04/21 16:35	09/04/21 23:09	1
Terphenyl-d14 (Surr)	65		12 - 126	09/04/21 16:35	09/04/21 23:09	1
2,4,6-Tribromophenol (Surr)	65		10 - 123	09/04/21 16:35	09/04/21 23:09	1
2-Fluorophenol (Surr)	59		10 - 105	09/04/21 16:35	09/04/21 23:09	1
2-Fluorobiphenyl	54		14 - 103	09/04/21 16:35	09/04/21 23:09	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.5	U	8.5	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
4,4'-DDE	8.5	U	8.5	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
4,4'-DDT	8.5	U	8.5	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Aldrin	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
alpha-BHC	2.6	U	2.6	0.87	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
beta-BHC	2.6	U	2.6	0.96	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Chlordane (technical)	85	U	85	21	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
delta-BHC	2.6	U	2.6	0.52	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Dieldrin	2.6	U	2.6	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Endosulfan I	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Endosulfan II	8.5	U	8.5	2.2	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Endosulfan sulfate	8.5	U	8.5	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Endrin	8.5	U	8.5	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Endrin aldehyde	8.5	U	8.5	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Endrin ketone	8.5	U	8.5	1.7	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
gamma-BHC (Lindane)	2.6	U	2.6	0.79	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Heptachlor	8.5	U	8.5	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Heptachlor epoxide	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Methoxychlor	8.5	U	8.5	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
Toxaphene	85	U	85	31	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1
cis-Chlordane	8.5	U	8.5	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 06:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		10 - 150	09/04/21 13:11	09/07/21 06:16	1
DCB Decachlorobiphenyl	102		10 - 150	09/04/21 13:11	09/07/21 06:16	1
Tetrachloro-m-xylene	66		10 - 133	09/04/21 13:11	09/07/21 06:16	1
Tetrachloro-m-xylene	67		10 - 133	09/04/21 13:11	09/07/21 06:16	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 071_DUP-2

Lab Sample ID: 460-242115-2

Date Collected: 09/02/21 09:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Aroclor 1221	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Aroclor 1232	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Aroclor 1242	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Aroclor 1248	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Aroclor 1254	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Aroclor 1260	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Aroclor-1262	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Aroclor 1268	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1
Polychlorinated biphenyls, Total	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 15:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	178	*	37 - 150	09/04/21 13:08	09/05/21 15:41	1
DCB Decachlorobiphenyl	179	*	37 - 150	09/04/21 13:08	09/05/21 15:41	1
Tetrachloro-m-xylene	134		54 - 150	09/04/21 13:08	09/05/21 15:41	1
Tetrachloro-m-xylene	128		54 - 150	09/04/21 13:08	09/05/21 15:41	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	42	U	42	4.4	ug/Kg	✱	09/08/21 20:14	09/09/21 09:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	91		65 - 150	09/08/21 20:14	09/09/21 09:41	1
2,4-Dichlorophenylacetic acid	106		65 - 150	09/08/21 20:14	09/09/21 09:41	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluoroheptanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorooctanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorononanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorodecanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorotridecanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorotetradecanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorobutanesulfonic acid	2.43	U	2.43	0.49	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorohexanesulfonic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorooctanesulfonic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
NEtFOSAA	2.43	U	2.43	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
NMeFOSAA	2.43	U	2.43	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluoroheptanesulfonic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorodecanesulfonic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorooctanesulfonamide	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorobutanoic acid	2.43	U	2.43	0.97	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluoroundecanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluorododecanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
6:2 Fluorotelomer sulfonic acid	2.43	U	2.43	0.73	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
8:2 Fluorotelomer sulfonic acid	3.65	U	3.65	0.73	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1
Perfluoropentanoic acid	0.73	U	0.73	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 13:23	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	134		10 - 178	09/07/21 06:47	09/10/21 13:23	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 071_DUP-2

Lab Sample ID: 460-242115-2

Date Collected: 09/02/21 09:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	136		10 - 182	09/07/21 06:47	09/10/21 13:23	1
13C5 PFHxA	114		11 - 138	09/07/21 06:47	09/10/21 13:23	1
13C4 PFHpA	108		15 - 139	09/07/21 06:47	09/10/21 13:23	1
13C8 PFOA	116		21 - 133	09/07/21 06:47	09/10/21 13:23	1
13C9 PFNA	109		15 - 145	09/07/21 06:47	09/10/21 13:23	1
13C6 PFDA	110		21 - 134	09/07/21 06:47	09/10/21 13:23	1
13C7 PFUnA	114		15 - 138	09/07/21 06:47	09/10/21 13:23	1
13C2-PFDoDA	115		28 - 126	09/07/21 06:47	09/10/21 13:23	1
13C2 PFTeDA	115		10 - 138	09/07/21 06:47	09/10/21 13:23	1
13C3 PFBS	118		23 - 130	09/07/21 06:47	09/10/21 13:23	1
13C3 PFHxS	110		24 - 136	09/07/21 06:47	09/10/21 13:23	1
13C8 PFOS	109		31 - 130	09/07/21 06:47	09/10/21 13:23	1
d3-NMeFOSAA	108		10 - 172	09/07/21 06:47	09/10/21 13:23	1
d5-NEtFOSAA	120		10 - 176	09/07/21 06:47	09/10/21 13:23	1
13C8 FOSA	105		25 - 135	09/07/21 06:47	09/10/21 13:23	1
13C4 PFBA	101		12 - 137	09/07/21 06:47	09/10/21 13:23	1
13C5 PFPeA	104		12 - 135	09/07/21 06:47	09/10/21 13:23	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Arsenic	0.95	J	1.2	0.12	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Barium	8.5		2.5	0.18	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Beryllium	0.18	J	0.49	0.070	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Cadmium	1.2	U	1.2	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Chromium	5.1		2.5	0.21	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Copper	5.2		2.5	0.27	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Manganese	189		4.9	0.49	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Nickel	6.0		2.5	0.24	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Lead	2.5		0.74	0.25	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1
Zinc	18.7		9.8	2.8	mg/Kg	✱	09/09/21 04:11	09/09/21 13:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.021	0.0049	mg/Kg	✱	09/07/21 03:31	09/07/21 08:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	5.1		2.0	2.0	mg/Kg			09/07/21 07:27	1
Cr (VI)	2.6	U	2.6	1.1	mg/Kg	✱	09/18/21 08:32	09/18/21 12:46	1
Cyanide, Total	0.27	U	0.27	0.15	mg/Kg	✱	09/05/21 15:08	09/06/21 19:47	1
Percent Moisture	21.6		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	78.4		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 072_LB-39_15-16

Lab Sample ID: 460-242115-3

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.25	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,1-Dichloroethane	1.1	U	1.1	0.22	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,1-Dichloroethene	1.1	U	1.1	0.24	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,2,4-Trimethylbenzene	1.1	U	1.1	0.27	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,2-Dichlorobenzene	1.1	U	1.1	0.39	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,2-Dichloroethane	1.1	U	1.1	0.32	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,3,5-Trimethylbenzene	1.1	U	1.1	0.34	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,3-Dichlorobenzene	1.1	U	1.1	0.40	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,4-Dichlorobenzene	1.1	U	1.1	0.24	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
1,4-Dioxane	22	U	22	10	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
2-Butanone (MEK)	5.4	U	5.4	0.40	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Acetone	8.9		6.5	6.2	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Benzene	1.1	U	1.1	0.28	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Carbon tetrachloride	1.1	U	1.1	0.42	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Chlorobenzene	1.1	U	1.1	0.19	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Chloroform	1.1	U	1.1	1.1	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
cis-1,2-Dichloroethene	1.1	U	1.1	0.39	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Ethylbenzene	1.1	U	1.1	0.22	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Methyl tert-butyl ether	1.1	U	1.1	0.56	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Methylene Chloride	2.7		2.2	1.2	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
n-Butylbenzene	1.1	U	1.1	0.32	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
N-Propylbenzene	1.1	U	1.1	0.19	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
sec-Butylbenzene	1.1	U	1.1	0.31	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
tert-Butylbenzene	1.1	U	1.1	0.30	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Tetrachloroethene	1.1	U	1.1	0.33	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Toluene	1.1	U	1.1	0.25	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
trans-1,2-Dichloroethene	1.1	U	1.1	0.27	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Trichloroethene	1.1	U	1.1	0.35	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Vinyl chloride	1.1	U	1.1	0.59	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1
Xylenes, Total	2.2	U	2.2	0.70	ug/Kg	☆	09/03/21 16:57	09/07/21 12:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 145	09/03/21 16:57	09/07/21 12:59	1
4-Bromofluorobenzene	95		70 - 139	09/03/21 16:57	09/07/21 12:59	1
Dibromofluoromethane (Surr)	112		48 - 150	09/03/21 16:57	09/07/21 12:59	1
Toluene-d8 (Surr)	94		80 - 120	09/03/21 16:57	09/07/21 12:59	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	420	U	420	16	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
2-Methylphenol	420	U	420	16	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
3 & 4 Methylphenol	420	U	420	26	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
Pentachlorophenol	340	U	340	86	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
Naphthalene	420	U	420	7.3	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
Acenaphthylene	420	U	420	4.2	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
Acenaphthene	420	U	420	12	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
Dibenzofuran	420	U	420	5.9	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
Fluorene	420	U	420	5.7	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
Hexachlorobenzene	42	U	42	20	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1
Phenanthrene	420	U	420	7.4	ug/Kg	☆	09/04/21 16:35	09/04/21 23:32	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 072_LB-39_15-16

Lab Sample ID: 460-242115-3

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	420	U	420	13	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Fluoranthene	420	U	420	15	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Pyrene	420	U	420	10	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Benzo[a]anthracene	42	U	42	15	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Chrysene	420	U *	420	7.1	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Benzo[b]fluoranthene	42	U	42	11	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Benzo[k]fluoranthene	42	U	42	8.3	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Benzo[a]pyrene	42	U	42	11	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Indeno[1,2,3-cd]pyrene	42	U	42	16	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Dibenz(a,h)anthracene	42	U	42	18	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
Benzo[g,h,i]perylene	420	U	420	12	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1
1,4-Dioxane	42	U	42	37	ug/Kg	✱	09/04/21 16:35	09/04/21 23:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	52		11 - 104	09/04/21 16:35	09/04/21 23:32	1
Phenol-d5 (Surr)	48		15 - 100	09/04/21 16:35	09/04/21 23:32	1
Terphenyl-d14 (Surr)	45		12 - 126	09/04/21 16:35	09/04/21 23:32	1
2,4,6-Tribromophenol (Surr)	56		10 - 123	09/04/21 16:35	09/04/21 23:32	1
2-Fluorophenol (Surr)	57		10 - 105	09/04/21 16:35	09/04/21 23:32	1
2-Fluorobiphenyl	51		14 - 103	09/04/21 16:35	09/04/21 23:32	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.5	U	8.5	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
4,4'-DDE	8.5	U	8.5	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
4,4'-DDT	8.5	U	8.5	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Aldrin	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
alpha-BHC	2.6	U	2.6	0.87	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
beta-BHC	2.6	U	2.6	0.96	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Chlordane (technical)	85	U	85	21	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
delta-BHC	2.6	U	2.6	0.52	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Dieldrin	2.6	U	2.6	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Endosulfan I	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Endosulfan II	8.5	U	8.5	2.2	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Endosulfan sulfate	8.5	U	8.5	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Endrin	8.5	U	8.5	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Endrin aldehyde	8.5	U	8.5	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Endrin ketone	8.5	U	8.5	1.7	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
gamma-BHC (Lindane)	2.6	U	2.6	0.79	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Heptachlor	8.5	U	8.5	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Heptachlor epoxide	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Methoxychlor	8.5	U	8.5	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
Toxaphene	85	U	85	31	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1
cis-Chlordane	8.5	U	8.5	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 06:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	103		10 - 150	09/04/21 13:11	09/07/21 06:29	1
DCB Decachlorobiphenyl	113		10 - 150	09/04/21 13:11	09/07/21 06:29	1
Tetrachloro-m-xylene	81		10 - 133	09/04/21 13:11	09/07/21 06:29	1
Tetrachloro-m-xylene	81		10 - 133	09/04/21 13:11	09/07/21 06:29	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 072_LB-39_15-16

Lab Sample ID: 460-242115-3

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Aroclor 1221	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Aroclor 1232	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Aroclor 1242	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Aroclor 1248	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Aroclor 1254	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Aroclor 1260	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Aroclor-1262	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Aroclor 1268	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1
Polychlorinated biphenyls, Total	85	U	85	23	ug/Kg	☆	09/04/21 13:08	09/05/21 16:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	150		37 - 150	09/04/21 13:08	09/05/21 16:03	1
DCB Decachlorobiphenyl	157	*	37 - 150	09/04/21 13:08	09/05/21 16:03	1
Tetrachloro-m-xylene	124		54 - 150	09/04/21 13:08	09/05/21 16:03	1
Tetrachloro-m-xylene	120		54 - 150	09/04/21 13:08	09/05/21 16:03	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	42	U	42	4.4	ug/Kg	☆	09/08/21 20:14	09/09/21 09:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	93		65 - 150	09/08/21 20:14	09/09/21 09:56	1
2,4-Dichlorophenylacetic acid	102		65 - 150	09/08/21 20:14	09/09/21 09:56	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluoroheptanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorooctanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorononanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorodecanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorotridecanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorotetradecanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorobutanesulfonic acid	2.48	U	2.48	0.50	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorohexanesulfonic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorooctanesulfonic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
NEtFOSAA	2.48	U	2.48	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
NMeFOSAA	2.48	U	2.48	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluoroheptanesulfonic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorodecanesulfonic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorooctanesulfonamide	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorobutanoic acid	2.48	U	2.48	0.99	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluoroundecanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluorododecanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
6:2 Fluorotelomer sulfonic acid	2.48	U	2.48	0.74	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
8:2 Fluorotelomer sulfonic acid	3.72	U	3.72	0.74	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1
Perfluoropentanoic acid	0.74	U	0.74	0.25	ug/Kg	☆	09/07/21 06:47	09/10/21 13:34	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	148		10 - 178	09/07/21 06:47	09/10/21 13:34	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 072_LB-39_15-16

Lab Sample ID: 460-242115-3

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	134		10 - 182	09/07/21 06:47	09/10/21 13:34	1
13C5 PFHxA	113		11 - 138	09/07/21 06:47	09/10/21 13:34	1
13C4 PFHpA	107		15 - 139	09/07/21 06:47	09/10/21 13:34	1
13C8 PFOA	115		21 - 133	09/07/21 06:47	09/10/21 13:34	1
13C9 PFNA	111		15 - 145	09/07/21 06:47	09/10/21 13:34	1
13C6 PFDA	113		21 - 134	09/07/21 06:47	09/10/21 13:34	1
13C7 PFUnA	115		15 - 138	09/07/21 06:47	09/10/21 13:34	1
13C2-PFDoDA	120		28 - 126	09/07/21 06:47	09/10/21 13:34	1
13C2 PFTeDA	91		10 - 138	09/07/21 06:47	09/10/21 13:34	1
13C3 PFBS	119		23 - 130	09/07/21 06:47	09/10/21 13:34	1
13C3 PFHxS	112		24 - 136	09/07/21 06:47	09/10/21 13:34	1
13C8 PFOS	109		31 - 130	09/07/21 06:47	09/10/21 13:34	1
d3-NMeFOSAA	102		10 - 172	09/07/21 06:47	09/10/21 13:34	1
d5-NEtFOSAA	131		10 - 176	09/07/21 06:47	09/10/21 13:34	1
13C8 FOSA	107		25 - 135	09/07/21 06:47	09/10/21 13:34	1
13C4 PFBA	102		12 - 137	09/07/21 06:47	09/10/21 13:34	1
13C5 PFPeA	105		12 - 135	09/07/21 06:47	09/10/21 13:34	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Arsenic	1.5		1.2	0.12	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Barium	14.9		2.4	0.17	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Beryllium	0.19	J	0.48	0.069	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Cadmium	1.2	U	1.2	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Chromium	10.1		2.4	0.21	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Copper	7.1		2.4	0.26	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Manganese	170		4.8	0.49	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Nickel	7.4		2.4	0.23	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Lead	3.0		0.72	0.24	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1
Zinc	16.5		9.6	2.8	mg/Kg	✱	09/09/21 04:11	09/09/21 13:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.020	0.0047	mg/Kg	✱	09/07/21 03:31	09/07/21 08:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.1		2.0	2.0	mg/Kg			09/07/21 07:28	1
Cr (VI)	2.6	U	2.6	1.1	mg/Kg	✱	09/18/21 08:32	09/18/21 12:46	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	09/05/21 15:08	09/06/21 19:54	1
Percent Moisture	21.6		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	78.4		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 073_DUP-3

Lab Sample ID: 460-242115-4

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 86.1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.45	U	0.45	0.11	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,1-Dichloroethane	0.45	U	0.45	0.093	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,1-Dichloroethene	0.45	U	0.45	0.10	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,2,4-Trimethylbenzene	0.45	U	0.45	0.11	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,2-Dichlorobenzene	0.45	U	0.45	0.16	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,2-Dichloroethane	0.45	U	0.45	0.13	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,3,5-Trimethylbenzene	0.45	U	0.45	0.14	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,3-Dichlorobenzene	0.45	U	0.45	0.16	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,4-Dichlorobenzene	0.45	U	0.45	0.10	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
1,4-Dioxane	9.0	U	9.0	4.1	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
2-Butanone (MEK)	2.3	U	2.3	0.17	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Acetone	4.7		2.7	2.6	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Benzene	0.45	U	0.45	0.12	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Carbon tetrachloride	0.45	U	0.45	0.17	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Chlorobenzene	0.45	U	0.45	0.080	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Chloroform	0.45	U	0.45	0.44	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
cis-1,2-Dichloroethene	0.45	U	0.45	0.16	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Ethylbenzene	0.45	U	0.45	0.090	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Methyl tert-butyl ether	0.45	U	0.45	0.23	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Methylene Chloride	1.2		0.90	0.52	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
n-Butylbenzene	0.45	U	0.45	0.13	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
N-Propylbenzene	0.45	U	0.45	0.079	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
sec-Butylbenzene	0.45	U	0.45	0.13	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
tert-Butylbenzene	0.45	U	0.45	0.12	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Tetrachloroethene	0.45	U	0.45	0.14	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Toluene	0.45	U	0.45	0.11	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
trans-1,2-Dichloroethene	0.45	U	0.45	0.11	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Trichloroethene	0.45	U	0.45	0.14	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Vinyl chloride	0.45	U	0.45	0.25	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1
Xylenes, Total	0.90	U	0.90	0.29	ug/Kg	☆	09/03/21 16:58	09/07/21 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 145	09/03/21 16:58	09/07/21 13:22	1
4-Bromofluorobenzene	94		70 - 139	09/03/21 16:58	09/07/21 13:22	1
Dibromofluoromethane (Surr)	113		48 - 150	09/03/21 16:58	09/07/21 13:22	1
Toluene-d8 (Surr)	93		80 - 120	09/03/21 16:58	09/07/21 13:22	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
2-Methylphenol	380	U	380	14	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
3 & 4 Methylphenol	380	U	380	24	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Pentachlorophenol	310	U	310	79	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Naphthalene	380	U	380	6.6	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Acenaphthylene	380	U	380	3.9	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Acenaphthene	380	U	380	11	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Dibenzofuran	380	U	380	5.4	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Fluorene	380	U	380	5.2	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Hexachlorobenzene	38	U	38	18	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Phenanthrene	380	U	380	6.8	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 073_DUP-3

Lab Sample ID: 460-242115-4

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 86.1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	380	U	380	12	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Fluoranthene	380	U	380	13	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Pyrene	380	U	380	9.6	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Benzo[a]anthracene	38	U	38	13	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Chrysene	380	U *	380	6.5	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Benzo[b]fluoranthene	38	U	38	9.9	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Benzo[k]fluoranthene	38	U	38	7.5	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Benzo[a]pyrene	38	U	38	10	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Indeno[1,2,3-cd]pyrene	38	U	38	15	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Dibenz(a,h)anthracene	38	U	38	17	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
Benzo[g,h,i]perylene	380	U	380	11	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1
1,4-Dioxane	38	U	38	34	ug/Kg	☆	09/04/21 16:35	09/05/21 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		11 - 104	09/04/21 16:35	09/05/21 17:46	1
Phenol-d5 (Surr)	74		15 - 100	09/04/21 16:35	09/05/21 17:46	1
Terphenyl-d14 (Surr)	45		12 - 126	09/04/21 16:35	09/05/21 17:46	1
2,4,6-Tribromophenol (Surr)	73		10 - 123	09/04/21 16:35	09/05/21 17:46	1
2-Fluorophenol (Surr)	74		10 - 105	09/04/21 16:35	09/05/21 17:46	1
2-Fluorobiphenyl	53		14 - 103	09/04/21 16:35	09/05/21 17:46	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.8	U	7.8	1.3	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
4,4'-DDE	7.8	U	7.8	0.92	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
4,4'-DDT	7.8	U	7.8	1.4	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Aldrin	7.8	U	7.8	1.2	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
alpha-BHC	2.3	U	2.3	0.79	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
beta-BHC	2.3	U	2.3	0.87	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Chlordane (technical)	78	U	78	19	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
delta-BHC	2.3	U	2.3	0.48	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Dieldrin	2.3	U	2.3	1.0	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Endosulfan I	7.8	U	7.8	1.2	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Endosulfan II	7.8	U	7.8	2.0	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Endosulfan sulfate	7.8	U	7.8	0.98	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Endrin	7.8	U	7.8	1.1	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Endrin aldehyde	7.8	U	7.8	1.8	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Endrin ketone	7.8	U	7.8	1.5	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
gamma-BHC (Lindane)	2.3	U	2.3	0.72	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Heptachlor	7.8	U	7.8	0.92	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Heptachlor epoxide	7.8	U	7.8	1.2	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Methoxychlor	7.8	U	7.8	1.8	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
Toxaphene	78	U	78	28	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1
cis-Chlordane	7.8	U	7.8	1.2	ug/Kg	☆	09/04/21 13:11	09/07/21 06:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	110		10 - 150	09/04/21 13:11	09/07/21 06:41	1
DCB Decachlorobiphenyl	114		10 - 150	09/04/21 13:11	09/07/21 06:41	1
Tetrachloro-m-xylene	87		10 - 133	09/04/21 13:11	09/07/21 06:41	1
Tetrachloro-m-xylene	86		10 - 133	09/04/21 13:11	09/07/21 06:41	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 073_DUP-3

Lab Sample ID: 460-242115-4

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Aroclor 1221	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Aroclor 1232	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Aroclor 1242	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Aroclor 1248	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Aroclor 1254	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Aroclor 1260	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Aroclor-1262	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Aroclor 1268	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1
Polychlorinated biphenyls, Total	78	U	78	21	ug/Kg	✱	09/04/21 13:08	09/05/21 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	151	*	37 - 150	09/04/21 13:08	09/05/21 16:26	1
DCB Decachlorobiphenyl	157	*	37 - 150	09/04/21 13:08	09/05/21 16:26	1
Tetrachloro-m-xylene	126		54 - 150	09/04/21 13:08	09/05/21 16:26	1
Tetrachloro-m-xylene	122		54 - 150	09/04/21 13:08	09/05/21 16:26	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	39	U	39	4.0	ug/Kg	✱	09/08/21 20:14	09/09/21 10:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	86		65 - 150	09/08/21 20:14	09/09/21 10:11	1
2,4-Dichlorophenylacetic acid	102		65 - 150	09/08/21 20:14	09/09/21 10:11	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluoroheptanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorooctanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorononanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorodecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorotridecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorotetradecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorobutanesulfonic acid	2.28	U	2.28	0.46	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorohexanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorooctanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
NEtFOSAA	2.28	U	2.28	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
NMeFOSAA	2.28	U	2.28	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluoroheptanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorodecanesulfonic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorooctanesulfonamide	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorobutanoic acid	2.28	U	2.28	0.91	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluoroundecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluorododecanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
6:2 Fluorotelomer sulfonic acid	2.28	U	2.28	0.68	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
8:2 Fluorotelomer sulfonic acid	3.42	U	3.42	0.68	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1
Perfluoropentanoic acid	0.68	U	0.68	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 13:44	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	146		10 - 178	09/07/21 06:47	09/10/21 13:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 073_DUP-3

Lab Sample ID: 460-242115-4

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 86.1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	130		10 - 182	09/07/21 06:47	09/10/21 13:44	1
13C5 PFHxA	113		11 - 138	09/07/21 06:47	09/10/21 13:44	1
13C4 PFHpA	108		15 - 139	09/07/21 06:47	09/10/21 13:44	1
13C8 PFOA	114		21 - 133	09/07/21 06:47	09/10/21 13:44	1
13C9 PFNA	105		15 - 145	09/07/21 06:47	09/10/21 13:44	1
13C6 PFDA	114		21 - 134	09/07/21 06:47	09/10/21 13:44	1
13C7 PFUnA	122		15 - 138	09/07/21 06:47	09/10/21 13:44	1
13C2-PFDoDA	121		28 - 126	09/07/21 06:47	09/10/21 13:44	1
13C2 PFTeDA	103		10 - 138	09/07/21 06:47	09/10/21 13:44	1
13C3 PFBS	120		23 - 130	09/07/21 06:47	09/10/21 13:44	1
13C3 PFHxS	110		24 - 136	09/07/21 06:47	09/10/21 13:44	1
13C8 PFOS	110		31 - 130	09/07/21 06:47	09/10/21 13:44	1
d3-NMeFOSAA	103		10 - 172	09/07/21 06:47	09/10/21 13:44	1
d5-NEtFOSAA	123		10 - 176	09/07/21 06:47	09/10/21 13:44	1
13C8 FOSA	106		25 - 135	09/07/21 06:47	09/10/21 13:44	1
13C4 PFBA	106		12 - 137	09/07/21 06:47	09/10/21 13:44	1
13C5 PFPeA	108		12 - 135	09/07/21 06:47	09/10/21 13:44	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.099	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Arsenic	1.3		1.1	0.11	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Barium	11.7		2.2	0.16	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Beryllium	0.19	J	0.45	0.064	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Cadmium	1.1	U	1.1	0.13	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Chromium	9.3		2.2	0.19	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Copper	5.9		2.2	0.25	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Manganese	124		4.5	0.45	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Nickel	6.7		2.2	0.22	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Lead	2.9		0.67	0.22	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1
Zinc	15.4		8.9	2.6	mg/Kg	✱	09/09/21 04:11	09/09/21 13:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.018	0.0043	mg/Kg	✱	09/07/21 03:31	09/07/21 08:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	9.3		2.0	2.0	mg/Kg			09/12/21 21:17	1
Cr (VI)	2.3	U	2.3	0.99	mg/Kg	✱	09/14/21 11:21	09/14/21 13:50	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	09/05/21 15:08	09/06/21 19:55	1
Percent Moisture	13.9		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	86.1		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 074_LB-40_5-7

Lab Sample ID: 460-242115-5

Date Collected: 09/02/21 11:15

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 87.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	130	U	130	25	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Methylene Chloride	130	U	130	26	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Acetone	630	U	630	550	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,1-Dichloroethene	130	U	130	33	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,1-Dichloroethane	130	U	130	30	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
trans-1,2-Dichloroethene	130	U	130	23	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
cis-1,2-Dichloroethene	130	U	130	33	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Chloroform	130	U	130	28	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,2-Dichloroethane	130	U	130	31	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
2-Butanone (MEK)	290	J	630	280	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,1,1-Trichloroethane	130	U	130	35	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Carbon tetrachloride	130	U	130	41	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Trichloroethene	130	U	130	28	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Benzene	80	J	130	25	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Tetrachloroethene	1200		130	45	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Toluene	430		130	31	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Chlorobenzene	130	U	130	30	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Ethylbenzene	88	J	130	38	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Xylenes, Total	750		250	35	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
Methyl tert-butyl ether	130	U	130	27	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,3-Dichlorobenzene	130	U	130	41	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,4-Dichlorobenzene	130	U	130	42	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,2-Dichlorobenzene	130	U	130	28	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,4-Dioxane	6300	U	6300	3500	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,2,4-Trimethylbenzene	250		130	29	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
1,3,5-Trimethylbenzene	92	J	130	31	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
N-Propylbenzene	79	J	130	36	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
sec-Butylbenzene	130	U	130	39	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
tert-Butylbenzene	130	U	130	35	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50
n-Butylbenzene	48	J	130	34	ug/Kg	✱	09/03/21 16:50	09/07/21 10:31	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	126		70 - 150	09/03/21 16:50	09/07/21 10:31	50
Toluene-d8 (Surr)	104		68 - 148	09/03/21 16:50	09/07/21 10:31	50
4-Bromofluorobenzene	111		62 - 150	09/03/21 16:50	09/07/21 10:31	50
Dibromofluoromethane (Surr)	117		54 - 150	09/03/21 16:50	09/07/21 10:31	50

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	380	U	380	14	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
2-Methylphenol	380	U	380	14	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
3 & 4 Methylphenol	380	U	380	23	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Pentachlorophenol	300	U	300	77	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Naphthalene	230	J	380	6.5	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Acenaphthylene	40	J	380	3.8	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Acenaphthene	240	J	380	11	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Dibenzofuran	230	J	380	5.3	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Fluorene	230	J	380	5.1	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Hexachlorobenzene	38	U	38	18	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Phenanthrene	2300		380	6.6	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 074_LB-40_5-7

Lab Sample ID: 460-242115-5

Date Collected: 09/02/21 11:15

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 87.9

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	510		380	11	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Fluoranthene	2400		380	13	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Pyrene	2000		380	9.4	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Benzo[a]anthracene	880		38	13	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Chrysene	860 *		380	6.4	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Benzo[b]fluoranthene	1000		38	9.7	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Benzo[k]fluoranthene	450		38	7.4	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Benzo[a]pyrene	910		38	10	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Indeno[1,2,3-cd]pyrene	650		38	15	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Dibenz(a,h)anthracene	95		38	16	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
Benzo[g,h,i]perylene	530		380	11	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1
1,4-Dioxane	38 U		38	33	ug/Kg	✱	09/04/21 16:35	09/06/21 01:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		11 - 104	09/04/21 16:35	09/06/21 01:47	1
Phenol-d5 (Surr)	80		15 - 100	09/04/21 16:35	09/06/21 01:47	1
Terphenyl-d14 (Surr)	39		12 - 126	09/04/21 16:35	09/06/21 01:47	1
2,4,6-Tribromophenol (Surr)	77		10 - 123	09/04/21 16:35	09/06/21 01:47	1
2-Fluorophenol (Surr)	79		10 - 105	09/04/21 16:35	09/06/21 01:47	1
2-Fluorobiphenyl	39		14 - 103	09/04/21 16:35	09/06/21 01:47	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	7.6 U		7.6	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
4,4'-DDE	7.6 U		7.6	0.90	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
4,4'-DDT	4.7 J		7.6	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Aldrin	7.6 U		7.6	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
alpha-BHC	2.3 U		2.3	0.77	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
beta-BHC	2.3 U		2.3	0.85	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Chlordane (technical)	76 U		76	18	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
delta-BHC	2.3 U		2.3	0.47	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Dieldrin	2.3 U		2.3	0.99	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Endosulfan I	7.6 U		7.6	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Endosulfan II	7.6 U		7.6	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Endosulfan sulfate	7.6 U		7.6	0.96	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Endrin	7.6 U		7.6	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Endrin aldehyde	7.6 U		7.6	1.8	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Endrin ketone	7.6 U		7.6	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
gamma-BHC (Lindane)	2.3 U		2.3	0.71	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Heptachlor	7.6 U		7.6	0.90	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Heptachlor epoxide	7.6 U		7.6	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Methoxychlor	7.6 U		7.6	1.7	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
Toxaphene	76 U		76	28	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1
cis-Chlordane	7.6 U		7.6	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 06:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	138		10 - 150	09/04/21 13:11	09/07/21 06:53	1
DCB Decachlorobiphenyl	119		10 - 150	09/04/21 13:11	09/07/21 06:53	1
Tetrachloro-m-xylene	83		10 - 133	09/04/21 13:11	09/07/21 06:53	1
Tetrachloro-m-xylene	77		10 - 133	09/04/21 13:11	09/07/21 06:53	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 074_LB-40_5-7

Lab Sample ID: 460-242115-5

Date Collected: 09/02/21 11:15

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 87.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Aroclor 1221	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Aroclor 1232	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Aroclor 1242	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Aroclor 1248	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Aroclor 1254	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Aroclor 1260	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Aroclor-1262	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Aroclor 1268	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1
Polychlorinated biphenyls, Total	76	U	76	20	ug/Kg	☆	09/04/21 13:08	09/05/21 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	165	*	37 - 150	09/04/21 13:08	09/05/21 16:48	1
DCB Decachlorobiphenyl	169	*	37 - 150	09/04/21 13:08	09/05/21 16:48	1
Tetrachloro-m-xylene	120		54 - 150	09/04/21 13:08	09/05/21 16:48	1
Tetrachloro-m-xylene	115		54 - 150	09/04/21 13:08	09/05/21 16:48	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	38	U	38	3.9	ug/Kg	☆	09/08/21 20:14	09/09/21 10:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	109		65 - 150	09/08/21 20:14	09/09/21 10:25	1
2,4-Dichlorophenylacetic acid	113		65 - 150	09/08/21 20:14	09/09/21 10:25	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluoroheptanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorooctanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorononanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorodecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorotridecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorotetradecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorobutanesulfonic acid	2.19	U	2.19	0.44	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorohexanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorooctanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
NEtFOSAA	2.19	U	2.19	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
NMeFOSAA	2.19	U	2.19	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluoroheptanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorodecanesulfonic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorooctanesulfonamide	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorobutanoic acid	2.19	U	2.19	0.87	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluoroundecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluorododecanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
6:2 Fluorotelomer sulfonic acid	2.19	U	2.19	0.66	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
8:2 Fluorotelomer sulfonic acid	3.28	U	3.28	0.66	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1
Perfluoropentanoic acid	0.66	U	0.66	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 13:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	138		10 - 178	09/07/21 06:47	09/10/21 13:55	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 074_LB-40_5-7

Lab Sample ID: 460-242115-5

Date Collected: 09/02/21 11:15

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 87.9

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	135		10 - 182	09/07/21 06:47	09/10/21 13:55	1
13C5 PFHxA	114		11 - 138	09/07/21 06:47	09/10/21 13:55	1
13C4 PFHpA	109		15 - 139	09/07/21 06:47	09/10/21 13:55	1
13C8 PFOA	119		21 - 133	09/07/21 06:47	09/10/21 13:55	1
13C9 PFNA	107		15 - 145	09/07/21 06:47	09/10/21 13:55	1
13C6 PFDA	113		21 - 134	09/07/21 06:47	09/10/21 13:55	1
13C7 PFUnA	125		15 - 138	09/07/21 06:47	09/10/21 13:55	1
13C2-PFDoDA	119		28 - 126	09/07/21 06:47	09/10/21 13:55	1
13C2 PFTeDA	102		10 - 138	09/07/21 06:47	09/10/21 13:55	1
13C3 PFBS	122		23 - 130	09/07/21 06:47	09/10/21 13:55	1
13C3 PFHxS	113		24 - 136	09/07/21 06:47	09/10/21 13:55	1
13C8 PFOS	108		31 - 130	09/07/21 06:47	09/10/21 13:55	1
d3-NMeFOSAA	80		10 - 172	09/07/21 06:47	09/10/21 13:55	1
d5-NEtFOSAA	108		10 - 176	09/07/21 06:47	09/10/21 13:55	1
13C8 FOSA	115		25 - 135	09/07/21 06:47	09/10/21 13:55	1
13C4 PFBA	105		12 - 137	09/07/21 06:47	09/10/21 13:55	1
13C5 PFPeA	109		12 - 135	09/07/21 06:47	09/10/21 13:55	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.15	J	1.1	0.095	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Arsenic	4.1		1.1	0.11	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Barium	79.4		2.1	0.15	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Beryllium	0.37	J	0.43	0.061	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Cadmium	0.32	J	1.1	0.12	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Chromium	17.4		2.1	0.18	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Copper	35.2		2.1	0.23	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Manganese	290		4.3	0.43	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Nickel	16.1		2.1	0.21	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Lead	234		0.64	0.21	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Selenium	0.59	J	1.3	0.13	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1
Zinc	139		8.5	2.4	mg/Kg	☆	09/09/21 04:11	09/09/21 13:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.018	0.0043	mg/Kg	☆	09/07/21 03:31	09/07/21 08:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	17.4		2.0	2.0	mg/Kg			09/07/21 07:28	1
Cr (VI)	2.3	U	2.3	0.96	mg/Kg	☆	09/18/21 08:32	09/18/21 12:46	1
Cyanide, Total	0.14	J	0.24	0.13	mg/Kg	☆	09/05/21 15:08	09/06/21 19:55	1
Percent Moisture	12.1		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	87.9		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 075_LB-40_15-16

Lab Sample ID: 460-242115-6

Date Collected: 09/02/21 11:25

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 83.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.93	U	0.93	0.22	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,1-Dichloroethane	0.93	U	0.93	0.19	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,1-Dichloroethene	0.93	U	0.93	0.21	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,2,4-Trimethylbenzene	0.93	U	0.93	0.23	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,2-Dichlorobenzene	0.93	U	0.93	0.33	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,2-Dichloroethane	0.93	U	0.93	0.27	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,3,5-Trimethylbenzene	0.93	U	0.93	0.29	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,3-Dichlorobenzene	0.93	U	0.93	0.34	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,4-Dichlorobenzene	0.93	U	0.93	0.21	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
1,4-Dioxane	19	U	19	8.5	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
2-Butanone (MEK)	4.6	U	4.6	0.34	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Acetone	5.5	J	5.6	5.3	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Benzene	0.93	U	0.93	0.24	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Carbon tetrachloride	0.93	U	0.93	0.36	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Chlorobenzene	0.93	U	0.93	0.16	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Chloroform	0.93	U	0.93	0.90	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
cis-1,2-Dichloroethene	0.93	U	0.93	0.33	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Ethylbenzene	0.93	U	0.93	0.18	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Methyl tert-butyl ether	0.93	U	0.93	0.47	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
n-Butylbenzene	0.93	U	0.93	0.27	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
N-Propylbenzene	0.93	U	0.93	0.16	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
sec-Butylbenzene	0.93	U	0.93	0.27	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
tert-Butylbenzene	0.93	U	0.93	0.26	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Tetrachloroethene	0.93	U	0.93	0.28	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Toluene	0.93	U	0.93	0.22	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
trans-1,2-Dichloroethene	0.93	U	0.93	0.23	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Trichloroethene	0.93	U	0.93	0.30	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Vinyl chloride	0.93	U	0.93	0.51	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1
Xylenes, Total	1.9	U	1.9	0.60	ug/Kg	✱	09/03/21 17:00	09/07/21 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 145	09/03/21 17:00	09/07/21 13:44	1
4-Bromofluorobenzene	103		70 - 139	09/03/21 17:00	09/07/21 13:44	1
Dibromofluoromethane (Surr)	115		48 - 150	09/03/21 17:00	09/07/21 13:44	1
Toluene-d8 (Surr)	102		80 - 120	09/03/21 17:00	09/07/21 13:44	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Pentachlorophenol	320	U	320	81	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Naphthalene	250	J	400	6.9	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Acenaphthylene	400	U	400	4.0	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Acenaphthene	23	J	400	11	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Dibenzofuran	37	J	400	5.6	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Fluorene	31	J	400	5.4	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Phenanthrene	98	J	400	7.0	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 075_LB-40_15-16

Lab Sample ID: 460-242115-6

Date Collected: 09/02/21 11:25

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 83.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	400	U	400	12	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Fluoranthene	26	J	400	14	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Pyrene	18	J	400	9.9	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Benzo[a]anthracene	40	U	40	14	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Chrysene	400	U *	400	6.7	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Benzo[b]fluoranthene	40	U	40	10	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Benzo[k]fluoranthene	40	U	40	7.8	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Indeno[1,2,3-cd]pyrene	40	U	40	15	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	09/04/21 16:35	09/05/21 00:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	68		11 - 104	09/04/21 16:35	09/05/21 00:18	1
Phenol-d5 (Surr)	78		15 - 100	09/04/21 16:35	09/05/21 00:18	1
Terphenyl-d14 (Surr)	62		12 - 126	09/04/21 16:35	09/05/21 00:18	1
2,4,6-Tribromophenol (Surr)	67		10 - 123	09/04/21 16:35	09/05/21 00:18	1
2-Fluorophenol (Surr)	44		10 - 105	09/04/21 16:35	09/05/21 00:18	1
2-Fluorobiphenyl	63		14 - 103	09/04/21 16:35	09/05/21 00:18	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.0	U	8.0	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
4,4'-DDE	8.0	U	8.0	0.95	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
4,4'-DDT	8.0	U	8.0	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Aldrin	8.0	U	8.0	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
alpha-BHC	2.4	U	2.4	0.82	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
beta-BHC	2.4	U	2.4	0.90	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Chlordane (technical)	80	U	80	19	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Endosulfan I	8.0	U	8.0	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Endosulfan II	8.0	U	8.0	2.1	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Endosulfan sulfate	8.0	U	8.0	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Endrin	8.0	U	8.0	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Endrin aldehyde	8.0	U	8.0	1.9	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Endrin ketone	8.0	U	8.0	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
gamma-BHC (Lindane)	2.4	U	2.4	0.74	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Heptachlor	8.0	U	8.0	0.95	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Heptachlor epoxide	8.0	U	8.0	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Methoxychlor	8.0	U	8.0	1.8	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
Toxaphene	80	U	80	29	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1
cis-Chlordane	8.0	U	8.0	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 07:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		10 - 150	09/04/21 13:11	09/07/21 07:06	1
DCB Decachlorobiphenyl	109		10 - 150	09/04/21 13:11	09/07/21 07:06	1
Tetrachloro-m-xylene	84		10 - 133	09/04/21 13:11	09/07/21 07:06	1
Tetrachloro-m-xylene	84		10 - 133	09/04/21 13:11	09/07/21 07:06	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 075_LB-40_15-16

Lab Sample ID: 460-242115-6

Date Collected: 09/02/21 11:25

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Aroclor 1221	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Aroclor 1232	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Aroclor 1242	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Aroclor 1248	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Aroclor 1254	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Aroclor 1260	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Aroclor-1262	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Aroclor 1268	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1
Polychlorinated biphenyls, Total	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	147		37 - 150	09/04/21 13:08	09/05/21 17:08	1
DCB Decachlorobiphenyl	151	*	37 - 150	09/04/21 13:08	09/05/21 17:08	1
Tetrachloro-m-xylene	125		54 - 150	09/04/21 13:08	09/05/21 17:08	1
Tetrachloro-m-xylene	121		54 - 150	09/04/21 13:08	09/05/21 17:08	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	☆	09/08/21 20:14	09/09/21 10:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	92		65 - 150	09/08/21 20:14	09/09/21 10:40	1
2,4-Dichlorophenylacetic acid	110		65 - 150	09/08/21 20:14	09/09/21 10:40	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorooctanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorobutanesulfonic acid	2.22	U	2.22	0.44	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorooctanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
NEtFOSAA	2.22	U	2.22	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
NMeFOSAA	2.22	U	2.22	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorobutanoic acid	2.22	U	2.22	0.89	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
6:2 Fluorotelomer sulfonic acid	2.22	U	2.22	0.67	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
8:2 Fluorotelomer sulfonic acid	3.33	U	3.33	0.67	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:06	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	132		10 - 178	09/07/21 06:47	09/10/21 14:06	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 075_LB-40_15-16

Lab Sample ID: 460-242115-6

Date Collected: 09/02/21 11:25

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 83.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	132		10 - 182	09/07/21 06:47	09/10/21 14:06	1
13C5 PFHxA	112		11 - 138	09/07/21 06:47	09/10/21 14:06	1
13C4 PFHpA	112		15 - 139	09/07/21 06:47	09/10/21 14:06	1
13C8 PFOA	119		21 - 133	09/07/21 06:47	09/10/21 14:06	1
13C9 PFNA	111		15 - 145	09/07/21 06:47	09/10/21 14:06	1
13C6 PFDA	114		21 - 134	09/07/21 06:47	09/10/21 14:06	1
13C7 PFUnA	114		15 - 138	09/07/21 06:47	09/10/21 14:06	1
13C2-PFDoDA	110		28 - 126	09/07/21 06:47	09/10/21 14:06	1
13C2 PFTeDA	111		10 - 138	09/07/21 06:47	09/10/21 14:06	1
13C3 PFBS	125		23 - 130	09/07/21 06:47	09/10/21 14:06	1
13C3 PFHxS	113		24 - 136	09/07/21 06:47	09/10/21 14:06	1
13C8 PFOS	109		31 - 130	09/07/21 06:47	09/10/21 14:06	1
d3-NMeFOSAA	100		10 - 172	09/07/21 06:47	09/10/21 14:06	1
d5-NEtFOSAA	104		10 - 176	09/07/21 06:47	09/10/21 14:06	1
13C8 FOSA	109		25 - 135	09/07/21 06:47	09/10/21 14:06	1
13C4 PFBA	107		12 - 137	09/07/21 06:47	09/10/21 14:06	1
13C5 PFPeA	109		12 - 135	09/07/21 06:47	09/10/21 14:06	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	1.1	0.098	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Arsenic	0.70	J	1.1	0.11	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Barium	12.5		2.2	0.16	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Beryllium	0.12	J	0.44	0.063	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Cadmium	1.1	U	1.1	0.12	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Chromium	6.1		2.2	0.19	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Copper	4.4		2.2	0.24	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Manganese	96.9		4.4	0.44	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Nickel	4.0		2.2	0.21	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Lead	3.3		0.66	0.22	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Selenium	1.4	U	1.4	0.13	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1
Zinc	9.8		8.8	2.5	mg/Kg	✱	09/09/21 04:11	09/09/21 13:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.020	0.0046	mg/Kg	✱	09/07/21 03:31	09/07/21 08:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	6.1		2.0	2.0	mg/Kg			09/07/21 07:28	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/18/21 08:32	09/18/21 12:46	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	09/05/21 15:08	09/06/21 19:56	1
Percent Moisture	16.6		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	83.4		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 076_LB-41_5-7

Lab Sample ID: 460-242115-7

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.2	U	1.2	0.28	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,1-Dichloroethane	1.2	U	1.2	0.24	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,1-Dichloroethene	1.2	U	1.2	0.27	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,2,4-Trimethylbenzene	1.2	U	1.2	0.29	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,2-Dichlorobenzene	1.2	U	1.2	0.43	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,2-Dichloroethane	1.2	U	1.2	0.35	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,3,5-Trimethylbenzene	1.2	U	1.2	0.37	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,3-Dichlorobenzene	1.2	U	1.2	0.43	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,4-Dichlorobenzene	1.2	U	1.2	0.27	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
1,4-Dioxane	24	U	24	11	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
2-Butanone (MEK)	5.9	U	5.9	0.44	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Acetone	7.1	U	7.1	6.8	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Benzene	1.2	U	1.2	0.31	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Carbon tetrachloride	1.2	U	1.2	0.46	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Chlorobenzene	1.2	U	1.2	0.21	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Chloroform	1.2	U	1.2	1.2	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
cis-1,2-Dichloroethene	1.2	U	1.2	0.43	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Ethylbenzene	1.2	U	1.2	0.24	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Methyl tert-butyl ether	1.2	U	1.2	0.61	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Methylene Chloride	1.9	J	2.4	1.4	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
n-Butylbenzene	1.2	U	1.2	0.35	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
N-Propylbenzene	1.2	U	1.2	0.21	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
sec-Butylbenzene	1.2	U	1.2	0.34	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
tert-Butylbenzene	1.2	U	1.2	0.33	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Tetrachloroethene	0.84	J	1.2	0.36	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Toluene	1.2	U	1.2	0.28	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
trans-1,2-Dichloroethene	1.2	U	1.2	0.29	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Trichloroethene	1.2	U	1.2	0.38	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Vinyl chloride	1.2	U	1.2	0.65	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1
Xylenes, Total	2.4	U	2.4	0.76	ug/Kg	☆	09/03/21 17:01	09/07/21 14:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	136		77 - 145	09/03/21 17:01	09/07/21 14:07	1
4-Bromofluorobenzene	117		70 - 139	09/03/21 17:01	09/07/21 14:07	1
Dibromofluoromethane (Surr)	140		48 - 150	09/03/21 17:01	09/07/21 14:07	1
Toluene-d8 (Surr)	117		80 - 120	09/03/21 17:01	09/07/21 14:07	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	420	U *	420	16	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
2-Methylphenol	420	U *	420	16	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
3 & 4 Methylphenol	420	U *	420	26	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
Pentachlorophenol	340	U	340	86	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
Naphthalene	420	U	420	7.3	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
Acenaphthylene	420	U	420	4.2	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
Acenaphthene	420	U	420	12	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
Dibenzofuran	420	U	420	5.9	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
Fluorene	420	U	420	5.7	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
Hexachlorobenzene	42	U	42	20	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1
Phenanthrene	420	U	420	7.4	ug/Kg	☆	09/04/21 16:35	09/05/21 18:03	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 076_LB-41_5-7

Lab Sample ID: 460-242115-7

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	420	U	420	13	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Fluoranthene	420	U	420	15	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Pyrene	420	U	420	10	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Benzo[a]anthracene	42	U	42	15	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Chrysene	420	U *	420	7.1	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Benzo[b]fluoranthene	42	U	42	11	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Benzo[k]fluoranthene	42	U	42	8.3	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Benzo[a]pyrene	42	U	42	11	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Indeno[1,2,3-cd]pyrene	42	U	42	16	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Dibenz(a,h)anthracene	42	U	42	18	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
Benzo[g,h,i]perylene	420	U	420	12	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1
1,4-Dioxane	42	U *	42	37	ug/Kg	✱	09/04/21 16:35	09/05/21 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		11 - 104	09/04/21 16:35	09/05/21 18:03	1
Phenol-d5 (Surr)	83	*	15 - 100	09/04/21 16:35	09/05/21 18:03	1
Terphenyl-d14 (Surr)	49		12 - 126	09/04/21 16:35	09/05/21 18:03	1
2,4,6-Tribromophenol (Surr)	72		10 - 123	09/04/21 16:35	09/05/21 18:03	1
2-Fluorophenol (Surr)	84	*	10 - 105	09/04/21 16:35	09/05/21 18:03	1
2-Fluorobiphenyl	39		14 - 103	09/04/21 16:35	09/05/21 18:03	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.5	U	8.5	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
4,4'-DDE	8.5	U	8.5	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
4,4'-DDT	8.5	U	8.5	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Aldrin	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
alpha-BHC	2.6	U	2.6	0.87	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
beta-BHC	2.6	U	2.6	0.96	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Chlordane (technical)	85	U	85	21	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
delta-BHC	2.6	U	2.6	0.52	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Dieldrin	2.6	U	2.6	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Endosulfan I	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Endosulfan II	8.5	U	8.5	2.2	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Endosulfan sulfate	8.5	U	8.5	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Endrin	8.5	U	8.5	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Endrin aldehyde	8.5	U	8.5	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Endrin ketone	8.5	U	8.5	1.7	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
gamma-BHC (Lindane)	2.6	U	2.6	0.79	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Heptachlor	8.5	U	8.5	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Heptachlor epoxide	8.5	U	8.5	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Methoxychlor	8.5	U	8.5	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
Toxaphene	85	U	85	31	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1
cis-Chlordane	8.5	U	8.5	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 07:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		10 - 150	09/04/21 13:11	09/07/21 07:18	1
DCB Decachlorobiphenyl	123		10 - 150	09/04/21 13:11	09/07/21 07:18	1
Tetrachloro-m-xylene	79		10 - 133	09/04/21 13:11	09/07/21 07:18	1
Tetrachloro-m-xylene	82		10 - 133	09/04/21 13:11	09/07/21 07:18	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 076_LB-41_5-7

Lab Sample ID: 460-242115-7

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Aroclor 1221	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Aroclor 1232	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Aroclor 1242	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Aroclor 1248	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Aroclor 1254	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Aroclor 1260	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Aroclor-1262	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Aroclor 1268	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1
Polychlorinated biphenyls, Total	85	U	85	23	ug/Kg	✱	09/04/21 13:08	09/05/21 20:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	157	*	37 - 150	09/04/21 13:08	09/05/21 20:25	1
DCB Decachlorobiphenyl	161	*	37 - 150	09/04/21 13:08	09/05/21 20:25	1
Tetrachloro-m-xylene	128		54 - 150	09/04/21 13:08	09/05/21 20:25	1
Tetrachloro-m-xylene	125		54 - 150	09/04/21 13:08	09/05/21 20:25	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	42	U	42	4.4	ug/Kg	✱	09/08/21 20:14	09/09/21 10:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	90		65 - 150	09/08/21 20:14	09/09/21 10:55	1
2,4-Dichlorophenylacetic acid	103		65 - 150	09/08/21 20:14	09/09/21 10:55	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluoroheptanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorooctanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorononanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorodecanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorotridecanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorotetradecanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorobutanesulfonic acid	2.50	U	2.50	0.50	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorohexanesulfonic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorooctanesulfonic acid	1.17		0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
NEtFOSAA	2.50	U	2.50	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
NMeFOSAA	2.50	U	2.50	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluoroheptanesulfonic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorodecanesulfonic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorooctanesulfonamide	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorobutanoic acid	2.50	U	2.50	1.00	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluoroundecanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluorododecanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
6:2 Fluorotelomer sulfonic acid	2.50	U	2.50	0.75	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
8:2 Fluorotelomer sulfonic acid	3.75	U	3.75	0.75	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1
Perfluoropentanoic acid	0.75	U	0.75	0.25	ug/Kg	✱	09/07/21 06:47	09/10/21 14:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	128		10 - 178	09/07/21 06:47	09/10/21 14:16	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 076_LB-41_5-7

Lab Sample ID: 460-242115-7

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	141		10 - 182	09/07/21 06:47	09/10/21 14:16	1
13C5 PFHxA	113		11 - 138	09/07/21 06:47	09/10/21 14:16	1
13C4 PFHpA	113		15 - 139	09/07/21 06:47	09/10/21 14:16	1
13C8 PFOA	120		21 - 133	09/07/21 06:47	09/10/21 14:16	1
13C9 PFNA	109		15 - 145	09/07/21 06:47	09/10/21 14:16	1
13C6 PFDA	104		21 - 134	09/07/21 06:47	09/10/21 14:16	1
13C7 PFUnA	113		15 - 138	09/07/21 06:47	09/10/21 14:16	1
13C2-PFDoDA	108		28 - 126	09/07/21 06:47	09/10/21 14:16	1
13C2 PFTeDA	108		10 - 138	09/07/21 06:47	09/10/21 14:16	1
13C3 PFBS	117		23 - 130	09/07/21 06:47	09/10/21 14:16	1
13C3 PFHxS	113		24 - 136	09/07/21 06:47	09/10/21 14:16	1
13C8 PFOS	109		31 - 130	09/07/21 06:47	09/10/21 14:16	1
d3-NMeFOSAA	96		10 - 172	09/07/21 06:47	09/10/21 14:16	1
d5-NEtFOSAA	113		10 - 176	09/07/21 06:47	09/10/21 14:16	1
13C8 FOSA	99		25 - 135	09/07/21 06:47	09/10/21 14:16	1
13C4 PFBA	101		12 - 137	09/07/21 06:47	09/10/21 14:16	1
13C5 PFPeA	103		12 - 135	09/07/21 06:47	09/10/21 14:16	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Arsenic	2.4		1.2	0.12	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Barium	49.6		2.4	0.18	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Beryllium	0.28	J	0.49	0.069	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Cadmium	0.20	J	1.2	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Chromium	11.5		2.4	0.21	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Copper	12.9		2.4	0.27	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Manganese	434		4.9	0.49	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Nickel	11.0		2.4	0.24	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Lead	30.3		0.73	0.24	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1
Zinc	50.4		9.7	2.8	mg/Kg	✱	09/09/21 04:11	09/09/21 13:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.020	0.0047	mg/Kg	✱	09/07/21 03:31	09/07/21 08:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.5		2.0	2.0	mg/Kg			09/07/21 07:28	1
Cr (VI)	2.6	U	2.6	1.1	mg/Kg	✱	09/18/21 08:32	09/18/21 12:46	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	✱	09/05/21 15:08	09/06/21 19:57	1
Percent Moisture	21.6		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	78.4		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 077_LB-41_15-16

Lab Sample ID: 460-242115-8

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.25	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,1-Dichloroethane	1.1	U	1.1	0.22	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,1-Dichloroethene	1.1	U	1.1	0.24	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,2,4-Trimethylbenzene	1.1	U	1.1	0.26	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,2-Dichlorobenzene	1.1	U	1.1	0.39	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,2-Dichloroethane	1.1	U	1.1	0.32	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,3,5-Trimethylbenzene	1.1	U	1.1	0.34	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,3-Dichlorobenzene	1.1	U	1.1	0.39	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,4-Dichlorobenzene	1.1	U	1.1	0.24	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
1,4-Dioxane	21	U	21	9.8	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
2-Butanone (MEK)	5.4	U	5.4	0.39	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Acetone	6.4	U	6.4	6.1	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Benzene	1.1	U	1.1	0.28	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Carbon tetrachloride	1.1	U	1.1	0.41	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Chlorobenzene	1.1	U	1.1	0.19	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Chloroform	1.1	U	1.1	1.0	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
cis-1,2-Dichloroethene	1.1	U	1.1	0.38	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Ethylbenzene	1.1	U	1.1	0.21	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Methyl tert-butyl ether	1.1	U	1.1	0.55	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Methylene Chloride	2.1	U	2.1	1.2	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
n-Butylbenzene	1.1	U	1.1	0.31	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
N-Propylbenzene	1.1	U	1.1	0.19	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
sec-Butylbenzene	1.1	U	1.1	0.31	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
tert-Butylbenzene	1.1	U	1.1	0.30	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Tetrachloroethene	1.1	U	1.1	0.33	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Toluene	1.1	U	1.1	0.25	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
trans-1,2-Dichloroethene	1.1	U	1.1	0.26	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Trichloroethene	1.1	U	1.1	0.34	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Vinyl chloride	1.1	U	1.1	0.58	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1
Xylenes, Total	2.1	U	2.1	0.69	ug/Kg	☆	09/03/21 17:02	09/07/21 14:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 145	09/03/21 17:02	09/07/21 14:30	1
4-Bromofluorobenzene	94		70 - 139	09/03/21 17:02	09/07/21 14:30	1
Dibromofluoromethane (Surr)	110		48 - 150	09/03/21 17:02	09/07/21 14:30	1
Toluene-d8 (Surr)	93		80 - 120	09/03/21 17:02	09/07/21 14:30	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	420	U	420	15	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
2-Methylphenol	420	U	420	16	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
3 & 4 Methylphenol	420	U	420	26	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
Pentachlorophenol	330	U	330	85	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
Naphthalene	420	U	420	7.2	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
Acenaphthylene	420	U	420	4.2	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
Acenaphthene	420	U	420	12	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
Dibenzofuran	420	U	420	5.8	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
Fluorene	420	U	420	5.6	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
Hexachlorobenzene	42	U	42	20	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1
Phenanthrene	420	U	420	7.3	ug/Kg	☆	09/04/21 16:35	09/05/21 18:20	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 077_LB-41_15-16

Lab Sample ID: 460-242115-8

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.5

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	420	U	420	13	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Fluoranthene	420	U	420	15	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Pyrene	420	U	420	10	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Benzo[a]anthracene	42	U	42	15	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Chrysene	420	U *	420	7.0	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Benzo[b]fluoranthene	42	U	42	11	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Benzo[k]fluoranthene	42	U	42	8.2	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Benzo[a]pyrene	42	U	42	11	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Indeno[1,2,3-cd]pyrene	42	U	42	16	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Dibenz(a,h)anthracene	42	U	42	18	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
Benzo[g,h,i]perylene	420	U	420	12	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1
1,4-Dioxane	42	U	42	36	ug/Kg	✱	09/04/21 16:35	09/05/21 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	54		11 - 104	09/04/21 16:35	09/05/21 18:20	1
Phenol-d5 (Surr)	76		15 - 100	09/04/21 16:35	09/05/21 18:20	1
Terphenyl-d14 (Surr)	42		12 - 126	09/04/21 16:35	09/05/21 18:20	1
2,4,6-Tribromophenol (Surr)	59		10 - 123	09/04/21 16:35	09/05/21 18:20	1
2-Fluorophenol (Surr)	73		10 - 105	09/04/21 16:35	09/05/21 18:20	1
2-Fluorobiphenyl	45		14 - 103	09/04/21 16:35	09/05/21 18:20	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.4	U	8.4	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
4,4'-DDE	8.4	U	8.4	0.99	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
4,4'-DDT	8.4	U	8.4	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Aldrin	8.4	U	8.4	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
alpha-BHC	2.5	U	2.5	0.86	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
beta-BHC	2.5	U	2.5	0.94	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Chlordane (technical)	84	U	84	20	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
delta-BHC	2.5	U	2.5	0.52	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Dieldrin	2.5	U	2.5	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Endosulfan I	8.4	U	8.4	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Endosulfan II	8.4	U	8.4	2.2	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Endosulfan sulfate	8.4	U	8.4	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Endrin	8.4	U	8.4	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Endrin aldehyde	8.4	U	8.4	2.0	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Endrin ketone	8.4	U	8.4	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
gamma-BHC (Lindane)	2.5	U	2.5	0.78	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Heptachlor	8.4	U	8.4	0.99	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Heptachlor epoxide	8.4	U	8.4	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Methoxychlor	8.4	U	8.4	1.9	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
Toxaphene	84	U	84	30	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1
cis-Chlordane	8.4	U	8.4	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 07:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	100		10 - 150	09/04/21 13:11	09/07/21 07:30	1
DCB Decachlorobiphenyl	109		10 - 150	09/04/21 13:11	09/07/21 07:30	1
Tetrachloro-m-xylene	75		10 - 133	09/04/21 13:11	09/07/21 07:30	1
Tetrachloro-m-xylene	78		10 - 133	09/04/21 13:11	09/07/21 07:30	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 077_LB-41_15-16

Lab Sample ID: 460-242115-8

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Aroclor 1221	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Aroclor 1232	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Aroclor 1242	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Aroclor 1248	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Aroclor 1254	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Aroclor 1260	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Aroclor-1262	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Aroclor 1268	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1
Polychlorinated biphenyls, Total	84	U	84	22	ug/Kg	✱	09/04/21 13:08	09/05/21 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	161	*	37 - 150	09/04/21 13:08	09/05/21 17:51	1
DCB Decachlorobiphenyl	166	*	37 - 150	09/04/21 13:08	09/05/21 17:51	1
Tetrachloro-m-xylene	127		54 - 150	09/04/21 13:08	09/05/21 17:51	1
Tetrachloro-m-xylene	123		54 - 150	09/04/21 13:08	09/05/21 17:51	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	42	U	42	4.4	ug/Kg	✱	09/08/21 20:14	09/09/21 11:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	89		65 - 150	09/08/21 20:14	09/09/21 11:10	1
2,4-Dichlorophenylacetic acid	104		65 - 150	09/08/21 20:14	09/09/21 11:10	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluoroheptanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorooctanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorononanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorodecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorotridecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorotetradecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorobutanesulfonic acid	2.37	U	2.37	0.47	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorohexanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorooctanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
NEtFOSAA	2.37	U	2.37	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
NMeFOSAA	2.37	U	2.37	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluoroheptanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorodecanesulfonic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorooctanesulfonamide	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorobutanoic acid	2.37	U	2.37	0.95	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluoroundecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluorododecanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
6:2 Fluorotelomer sulfonic acid	2.37	U	2.37	0.71	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
8:2 Fluorotelomer sulfonic acid	3.56	U	3.56	0.71	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1
Perfluoropentanoic acid	0.71	U	0.71	0.24	ug/Kg	✱	09/07/21 06:47	09/10/21 14:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	122		10 - 178	09/07/21 06:47	09/10/21 14:27	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 077_LB-41_15-16

Lab Sample ID: 460-242115-8

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.5

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	135		10 - 182	09/07/21 06:47	09/10/21 14:27	1
13C5 PFHxA	116		11 - 138	09/07/21 06:47	09/10/21 14:27	1
13C4 PFHpA	112		15 - 139	09/07/21 06:47	09/10/21 14:27	1
13C8 PFOA	118		21 - 133	09/07/21 06:47	09/10/21 14:27	1
13C9 PFNA	104		15 - 145	09/07/21 06:47	09/10/21 14:27	1
13C6 PFDA	108		21 - 134	09/07/21 06:47	09/10/21 14:27	1
13C7 PFUnA	106		15 - 138	09/07/21 06:47	09/10/21 14:27	1
13C2-PFDoDA	100		28 - 126	09/07/21 06:47	09/10/21 14:27	1
13C2 PFTeDA	101		10 - 138	09/07/21 06:47	09/10/21 14:27	1
13C3 PFBS	126		23 - 130	09/07/21 06:47	09/10/21 14:27	1
13C3 PFHxS	118		24 - 136	09/07/21 06:47	09/10/21 14:27	1
13C8 PFOS	106		31 - 130	09/07/21 06:47	09/10/21 14:27	1
d3-NMeFOSAA	68		10 - 172	09/07/21 06:47	09/10/21 14:27	1
d5-NEtFOSAA	84		10 - 176	09/07/21 06:47	09/10/21 14:27	1
13C8 FOSA	106		25 - 135	09/07/21 06:47	09/10/21 14:27	1
13C4 PFBA	109		12 - 137	09/07/21 06:47	09/10/21 14:27	1
13C5 PFPeA	109		12 - 135	09/07/21 06:47	09/10/21 14:27	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Arsenic	0.70	J	1.2	0.12	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Barium	13.7		2.4	0.17	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Beryllium	0.13	J	0.48	0.068	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Cadmium	1.2	U	1.2	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Chromium	6.5		2.4	0.21	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Copper	4.3		2.4	0.26	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Manganese	241		4.8	0.48	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Nickel	5.2		2.4	0.23	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Lead	1.9		0.72	0.24	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1
Zinc	11.6		9.6	2.7	mg/Kg	✱	09/09/21 04:11	09/09/21 13:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.020	0.0048	mg/Kg	✱	09/07/21 03:31	09/07/21 08:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	6.5		2.0	2.0	mg/Kg			09/07/21 07:28	1
Cr (VI)	2.5	U	2.5	1.1	mg/Kg	✱	09/18/21 08:32	09/18/21 12:46	1
Cyanide, Total	0.29	U	0.29	0.16	mg/Kg	✱	09/05/21 15:08	09/06/21 19:58	1
Percent Moisture	20.5		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	79.5		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 078_LB-42_5-7

Lab Sample ID: 460-242115-9

Date Collected: 09/02/21 14:00

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 86.5

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluoroheptanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorooctanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorononanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorodecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorotridecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorotetradecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorobutanesulfonic acid	2.16	U	2.16	0.43	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorohexanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorooctanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
NEtFOSAA	2.16	U	2.16	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
NMeFOSAA	2.16	U	2.16	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluoroheptanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorodecanesulfonic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorooctanesulfonamide	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorobutanoic acid	2.16	U	2.16	0.86	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluoroundecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluorododecanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
6:2 Fluorotelomer sulfonic acid	2.16	U	2.16	0.65	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
8:2 Fluorotelomer sulfonic acid	3.24	U	3.24	0.65	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1
Perfluoropentanoic acid	0.65	U	0.65	0.22	ug/Kg	☆	09/07/21 06:47	09/10/21 14:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	112		10 - 178	09/07/21 06:47	09/10/21 14:37	1
M2-6:2 FTS	123		10 - 182	09/07/21 06:47	09/10/21 14:37	1
13C5 PFHxA	101		11 - 138	09/07/21 06:47	09/10/21 14:37	1
13C4 PFHpA	96		15 - 139	09/07/21 06:47	09/10/21 14:37	1
13C8 PFOA	106		21 - 133	09/07/21 06:47	09/10/21 14:37	1
13C9 PFNA	104		15 - 145	09/07/21 06:47	09/10/21 14:37	1
13C6 PFDA	99		21 - 134	09/07/21 06:47	09/10/21 14:37	1
13C7 PFUnA	99		15 - 138	09/07/21 06:47	09/10/21 14:37	1
13C2-PFDoDA	98		28 - 126	09/07/21 06:47	09/10/21 14:37	1
13C2 PFTeDA	100		10 - 138	09/07/21 06:47	09/10/21 14:37	1
13C3 PFBS	112		23 - 130	09/07/21 06:47	09/10/21 14:37	1
13C3 PFHxS	101		24 - 136	09/07/21 06:47	09/10/21 14:37	1
13C8 PFOS	104		31 - 130	09/07/21 06:47	09/10/21 14:37	1
d3-NMeFOSAA	95		10 - 172	09/07/21 06:47	09/10/21 14:37	1
d5-NEtFOSAA	101		10 - 176	09/07/21 06:47	09/10/21 14:37	1
13C8 FOSA	92		25 - 135	09/07/21 06:47	09/10/21 14:37	1
13C4 PFBA	94		12 - 137	09/07/21 06:47	09/10/21 14:37	1
13C5 PFPeA	97		12 - 135	09/07/21 06:47	09/10/21 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.5		1.0	1.0	%	-		09/15/21 10:29	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 079_FB-5

Lab Sample ID: 460-242115-10

Date Collected: 09/02/21 14:10

Matrix: Water

Date Received: 09/02/21 18:30

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluoroheptanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorooctanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorononanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorodecanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorotridecanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorotetradecanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorobutanesulfonic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorohexanesulfonic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorooctanesulfonic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
NEtFOSAA	2.56	U	2.56	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
NMeFOSAA	1.70	U	1.70	0.51	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluoroheptanesulfonic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorodecanesulfonic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorooctanesulfonamide	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorobutanoic acid	4.26	U	4.26	1.70	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluoroundecanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluorododecanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1
6:2 Fluorotelomer sulfonic acid	4.26	U	4.26	1.70	ng/L		09/08/21 09:14	09/14/21 07:35	1
8:2 Fluorotelomer sulfonic acid	2.56	U	2.56	0.85	ng/L		09/08/21 09:14	09/14/21 07:35	1
Perfluoropentanoic acid	1.70	U	1.70	0.43	ng/L		09/08/21 09:14	09/14/21 07:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	110		34 - 182	09/08/21 09:14	09/14/21 07:35	1
M2-6:2 FTS	135		29 - 189	09/08/21 09:14	09/14/21 07:35	1
13C5 PFHxA	101		31 - 142	09/08/21 09:14	09/14/21 07:35	1
13C4 PFHpA	101		30 - 144	09/08/21 09:14	09/14/21 07:35	1
13C8 PFOA	101		49 - 127	09/08/21 09:14	09/14/21 07:35	1
13C9 PFNA	105		47 - 136	09/08/21 09:14	09/14/21 07:35	1
13C6 PFDA	102		47 - 128	09/08/21 09:14	09/14/21 07:35	1
13C7 PFUnA	97		40 - 135	09/08/21 09:14	09/14/21 07:35	1
13C2-PFDoDA	96		28 - 136	09/08/21 09:14	09/14/21 07:35	1
13C2 PFTeDA	94		10 - 144	09/08/21 09:14	09/14/21 07:35	1
13C3 PFBS	112		19 - 178	09/08/21 09:14	09/14/21 07:35	1
13C3 PFHxS	102		32 - 145	09/08/21 09:14	09/14/21 07:35	1
13C8 PFOS	106		49 - 126	09/08/21 09:14	09/14/21 07:35	1
d3-NMeFOSAA	98		32 - 151	09/08/21 09:14	09/14/21 07:35	1
d5-NEtFOSAA	99		37 - 164	09/08/21 09:14	09/14/21 07:35	1
13C8 FOSA	84		10 - 143	09/08/21 09:14	09/14/21 07:35	1
13C4 PFBA	101		41 - 132	09/08/21 09:14	09/14/21 07:35	1
13C5 PFPeA	106		33 - 155	09/08/21 09:14	09/14/21 07:35	1

Client Sample ID: 080_LB-44_8-10

Lab Sample ID: 460-242115-11

Date Collected: 09/02/21 14:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 81.7

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.94	U	0.94	0.22	ug/Kg	☼	09/03/21 17:03	09/07/21 10:20	1
1,1-Dichloroethane	0.94	U	0.94	0.19	ug/Kg	☼	09/03/21 17:03	09/07/21 10:20	1
1,1-Dichloroethene	0.94	U	0.94	0.21	ug/Kg	☼	09/03/21 17:03	09/07/21 10:20	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 080_LB-44_8-10

Lab Sample ID: 460-242115-11

Date Collected: 09/02/21 14:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 81.7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	0.94	U	0.94	0.23	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
1,2-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
1,2-Dichloroethane	0.94	U	0.94	0.28	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
1,3,5-Trimethylbenzene	0.94	U	0.94	0.29	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
1,3-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
1,4-Dichlorobenzene	0.94	U	0.94	0.21	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
1,4-Dioxane	19	U	19	8.6	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
2-Butanone (MEK)	4.7	U	4.7	0.35	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Acetone	5.6	U	5.6	5.4	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Benzene	0.94	U	0.94	0.24	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Carbon tetrachloride	0.94	U	0.94	0.36	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Chlorobenzene	0.94	U	0.94	0.17	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Chloroform	0.94	U	0.94	0.91	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
cis-1,2-Dichloroethene	0.94	U	0.94	0.34	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Ethylbenzene	0.94	U	0.94	0.19	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Methyl tert-butyl ether	0.94	U	0.94	0.48	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
n-Butylbenzene	0.94	U	0.94	0.28	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
N-Propylbenzene	0.94	U	0.94	0.16	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
sec-Butylbenzene	0.94	U	0.94	0.27	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
tert-Butylbenzene	0.94	U	0.94	0.26	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Tetrachloroethene	0.94	U	0.94	0.29	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Toluene	0.94	U	0.94	0.22	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
trans-1,2-Dichloroethene	0.94	U	0.94	0.23	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Trichloroethene	0.94	U	0.94	0.30	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Vinyl chloride	0.94	U	0.94	0.51	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1
Xylenes, Total	1.9	U	1.9	0.60	ug/Kg	✱	09/03/21 17:03	09/07/21 10:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 145	09/03/21 17:03	09/07/21 10:20	1
4-Bromofluorobenzene	98		70 - 139	09/03/21 17:03	09/07/21 10:20	1
Dibromofluoromethane (Surr)	114		48 - 150	09/03/21 17:03	09/07/21 10:20	1
Toluene-d8 (Surr)	97		80 - 120	09/03/21 17:03	09/07/21 10:20	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
2-Methylphenol	400	U	400	15	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Pentachlorophenol	330	U	330	83	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Naphthalene	400	U	400	7.0	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Acenaphthylene	400	U	400	4.1	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Acenaphthene	400	U	400	12	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Dibenzofuran	400	U	400	5.7	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Fluorene	400	U	400	5.5	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Hexachlorobenzene	40	U	40	19	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Phenanthrene	400	U	400	7.1	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Anthracene	400	U	400	12	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Fluoranthene	400	U	400	14	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Pyrene	400	U	400	10	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 080_LB-44_8-10

Lab Sample ID: 460-242115-11

Date Collected: 09/02/21 14:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 81.7

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	40	U	40	14	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Chrysene	400	U *	400	6.8	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Benzo[b]fluoranthene	40	U	40	10	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Benzo[k]fluoranthene	40	U	40	7.9	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Dibenz(a,h)anthracene	40	U	40	18	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	09/04/21 16:35	09/04/21 21:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		11 - 104	09/04/21 16:35	09/04/21 21:37	1
Phenol-d5 (Surr)	80		15 - 100	09/04/21 16:35	09/04/21 21:37	1
Terphenyl-d14 (Surr)	69		12 - 126	09/04/21 16:35	09/04/21 21:37	1
2,4,6-Tribromophenol (Surr)	85		10 - 123	09/04/21 16:35	09/04/21 21:37	1
2-Fluorophenol (Surr)	81		10 - 105	09/04/21 16:35	09/04/21 21:37	1
2-Fluorobiphenyl	60		14 - 103	09/04/21 16:35	09/04/21 21:37	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.2	U	8.2	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
4,4'-DDE	8.2	U	8.2	0.97	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
4,4'-DDT	8.2	U	8.2	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Aldrin	8.2	U	8.2	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
alpha-BHC	2.4	U	2.4	0.83	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
beta-BHC	2.4	U	2.4	0.92	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Chlordane (technical)	82	U	82	20	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Endosulfan I	8.2	U	8.2	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Endosulfan II	8.2	U	8.2	2.1	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Endosulfan sulfate	8.2	U	8.2	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Endrin	8.2	U	8.2	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Endrin aldehyde	8.2	U	8.2	1.9	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Endrin ketone	8.2	U	8.2	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
gamma-BHC (Lindane)	2.4	U	2.4	0.76	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Heptachlor	8.2	U	8.2	0.97	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Heptachlor epoxide	8.2	U	8.2	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Methoxychlor	8.2	U	8.2	1.9	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
Toxaphene	82	U	82	30	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1
cis-Chlordane	8.2	U	8.2	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 05:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 150	09/04/21 13:11	09/07/21 05:52	1
DCB Decachlorobiphenyl	102		10 - 150	09/04/21 13:11	09/07/21 05:52	1
Tetrachloro-m-xylene	79		10 - 133	09/04/21 13:11	09/07/21 05:52	1
Tetrachloro-m-xylene	76		10 - 133	09/04/21 13:11	09/07/21 05:52	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 080_LB-44_8-10

Lab Sample ID: 460-242115-11

Date Collected: 09/02/21 14:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 81.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Aroclor 1221	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Aroclor 1232	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Aroclor 1242	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Aroclor 1248	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Aroclor 1254	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Aroclor 1260	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Aroclor-1262	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Aroclor 1268	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1
Polychlorinated biphenyls, Total	82	U	82	22	ug/Kg	✱	09/04/21 13:08	09/05/21 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	147		37 - 150	09/04/21 13:08	09/05/21 14:16	1
DCB Decachlorobiphenyl	151	*	37 - 150	09/04/21 13:08	09/05/21 14:16	1
Tetrachloro-m-xylene	125		54 - 150	09/04/21 13:08	09/05/21 14:16	1
Tetrachloro-m-xylene	119		54 - 150	09/04/21 13:08	09/05/21 14:16	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	41	U	41	4.2	ug/Kg	✱	09/08/21 20:14	09/09/21 09:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	82		65 - 150	09/08/21 20:14	09/09/21 09:12	1
2,4-Dichlorophenylacetic acid	93		65 - 150	09/08/21 20:14	09/09/21 09:12	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorooctanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorobutanesulfonic acid	2.25	U	2.25	0.45	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorooctanesulfonic acid	0.44	J	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
NEtFOSAA	2.25	U	2.25	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
NMeFOSAA	2.25	U	2.25	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorobutanoic acid	2.25	U	2.25	0.90	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
6:2 Fluorotelomer sulfonic acid	2.25	U	2.25	0.67	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
8:2 Fluorotelomer sulfonic acid	3.37	U	3.37	0.67	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	✱	09/07/21 06:47	09/10/21 14:48	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	126		10 - 178	09/07/21 06:47	09/10/21 14:48	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 080_LB-44_8-10

Lab Sample ID: 460-242115-11

Date Collected: 09/02/21 14:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 81.7

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	132		10 - 182	09/07/21 06:47	09/10/21 14:48	1
13C5 PFHxA	110		11 - 138	09/07/21 06:47	09/10/21 14:48	1
13C4 PFHpA	107		15 - 139	09/07/21 06:47	09/10/21 14:48	1
13C8 PFOA	117		21 - 133	09/07/21 06:47	09/10/21 14:48	1
13C9 PFNA	106		15 - 145	09/07/21 06:47	09/10/21 14:48	1
13C6 PFDA	116		21 - 134	09/07/21 06:47	09/10/21 14:48	1
13C7 PFUnA	120		15 - 138	09/07/21 06:47	09/10/21 14:48	1
13C2-PFDoDA	107		28 - 126	09/07/21 06:47	09/10/21 14:48	1
13C2 PFTeDA	105		10 - 138	09/07/21 06:47	09/10/21 14:48	1
13C3 PFBS	121		23 - 130	09/07/21 06:47	09/10/21 14:48	1
13C3 PFHxS	109		24 - 136	09/07/21 06:47	09/10/21 14:48	1
13C8 PFOS	104		31 - 130	09/07/21 06:47	09/10/21 14:48	1
d3-NMeFOSAA	92		10 - 172	09/07/21 06:47	09/10/21 14:48	1
d5-NEtFOSAA	104		10 - 176	09/07/21 06:47	09/10/21 14:48	1
13C8 FOSA	110		25 - 135	09/07/21 06:47	09/10/21 14:48	1
13C4 PFBA	101		12 - 137	09/07/21 06:47	09/10/21 14:48	1
13C5 PFPeA	105		12 - 135	09/07/21 06:47	09/10/21 14:48	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.11	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Arsenic	1.5		1.2	0.12	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Barium	26.3		2.4	0.18	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Beryllium	0.34	J	0.49	0.070	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Cadmium	1.2	U	1.2	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Chromium	10.9		2.4	0.21	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Copper	6.1		2.4	0.27	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Manganese	131		4.9	0.49	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Nickel	10.8		2.4	0.24	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Lead	5.3		0.73	0.24	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1
Zinc	28.8		9.8	2.8	mg/Kg	✱	09/09/21 04:11	09/09/21 11:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0061	J	0.020	0.0048	mg/Kg	✱	09/07/21 03:31	09/07/21 07:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	10.9		2.0	2.0	mg/Kg			09/07/21 07:28	1
Cr (VI)	2.4	U	2.4	1.0	mg/Kg	✱	09/18/21 08:32	09/18/21 13:20	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	09/05/21 15:08	09/06/21 19:51	1
Percent Moisture	18.3		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	81.7		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 081_TB-4

Lab Sample ID: 460-242115-12

Date Collected: 09/02/21 00:00

Matrix: Water

Date Received: 09/02/21 18:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/04/21 14:23	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/04/21 14:23	1
Acetone	5.0	U	5.0	4.4	ug/L			09/04/21 14:23	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/04/21 14:23	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/04/21 14:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/04/21 14:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/04/21 14:23	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/04/21 14:23	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/04/21 14:23	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/04/21 14:23	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/04/21 14:23	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/04/21 14:23	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/04/21 14:23	1
Benzene	1.0	U	1.0	0.20	ug/L			09/04/21 14:23	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/04/21 14:23	1
Toluene	1.0	U	1.0	0.38	ug/L			09/04/21 14:23	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/04/21 14:23	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/04/21 14:23	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/04/21 14:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/04/21 14:23	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/04/21 14:23	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/04/21 14:23	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/04/21 14:23	1
1,4-Dioxane	50	U	50	28	ug/L			09/04/21 14:23	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 14:23	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/04/21 14:23	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 14:23	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 14:23	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/04/21 14:23	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 14:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		75 - 123		09/04/21 14:23	1
Toluene-d8 (Surr)	86		80 - 120		09/04/21 14:23	1
4-Bromofluorobenzene	98		76 - 120		09/04/21 14:23	1
Dibromofluoromethane (Surr)	90		77 - 124		09/04/21 14:23	1

Client Sample ID: 082_LB-43_9-11

Lab Sample ID: 460-242115-13

Date Collected: 09/02/21 14:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 83.2

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 15:30	1
Perfluoroheptanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 15:30	1
Perfluorooctanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 15:30	1
Perfluorononanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 15:30	1
Perfluorodecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 15:30	1
Perfluorotridecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 15:30	1
Perfluorotetradecanoic acid	0.70	U	0.70	0.23	ug/Kg	✱	09/07/21 06:47	09/10/21 15:30	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 082_LB-43_9-11

Lab Sample ID: 460-242115-13

Date Collected: 09/02/21 14:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 83.2

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid	2.33	U	2.33	0.47	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluorohexanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluorooctanesulfonic acid	0.66	J	0.70	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
NEtFOSAA	2.33	U	2.33	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
NMeFOSAA	2.33	U	2.33	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluoroheptanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluorodecanesulfonic acid	0.70	U	0.70	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluorooctanesulfonamide	0.70	U	0.70	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluorobutanoic acid	2.33	U	2.33	0.93	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluoroundecanoic acid	0.70	U	0.70	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluorododecanoic acid	0.70	U	0.70	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
6:2 Fluorotelomer sulfonic acid	2.33	U	2.33	0.70	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
8:2 Fluorotelomer sulfonic acid	3.50	U	3.50	0.70	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1
Perfluoropentanoic acid	0.70	U	0.70	0.23	ug/Kg	☆	09/07/21 06:47	09/10/21 15:30	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	133		10 - 178	09/07/21 06:47	09/10/21 15:30	1
M2-6:2 FTS	137		10 - 182	09/07/21 06:47	09/10/21 15:30	1
13C5 PFHxA	109		11 - 138	09/07/21 06:47	09/10/21 15:30	1
13C4 PFHpA	105		15 - 139	09/07/21 06:47	09/10/21 15:30	1
13C8 PFOA	114		21 - 133	09/07/21 06:47	09/10/21 15:30	1
13C9 PFNA	108		15 - 145	09/07/21 06:47	09/10/21 15:30	1
13C6 PFDA	109		21 - 134	09/07/21 06:47	09/10/21 15:30	1
13C7 PFUnA	110		15 - 138	09/07/21 06:47	09/10/21 15:30	1
13C2-PFDoDA	107		28 - 126	09/07/21 06:47	09/10/21 15:30	1
13C2 PFTeDA	94		10 - 138	09/07/21 06:47	09/10/21 15:30	1
13C3 PFBS	115		23 - 130	09/07/21 06:47	09/10/21 15:30	1
13C3 PFHxS	108		24 - 136	09/07/21 06:47	09/10/21 15:30	1
13C8 PFOS	108		31 - 130	09/07/21 06:47	09/10/21 15:30	1
d3-NMeFOSAA	68		10 - 172	09/07/21 06:47	09/10/21 15:30	1
d5-NEtFOSAA	79		10 - 176	09/07/21 06:47	09/10/21 15:30	1
13C8 FOSA	83		25 - 135	09/07/21 06:47	09/10/21 15:30	1
13C4 PFBA	98		12 - 137	09/07/21 06:47	09/10/21 15:30	1
13C5 PFPeA	101		12 - 135	09/07/21 06:47	09/10/21 15:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		1.0	1.0	%	-		09/15/21 10:29	1

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	DBFM	TOL
		(77-145)	(70-139)	(48-150)	(80-120)
460-242115-1	070_LB-38_16-17	130	113	133	113
460-242115-2	071_DUP-2	107	92	109	92
460-242115-3	072_LB-39_15-16	108	95	112	94
460-242115-4	073_DUP-3	110	94	113	93
460-242115-6	075_LB-40_15-16	118	103	115	102
460-242115-7	076_LB-41_5-7	136	117	140	117
460-242115-8	077_LB-41_15-16	109	94	110	93
460-242115-11	080_LB-44_8-10	110	98	114	97
460-242115-11 MS	080_LB-44_8-10	128	117	134	116
460-242115-11 MSD	080_LB-44_8-10	108	100	112	98
LCS 460-799947/3	Lab Control Sample	104	98	109	98
LCSD 460-799947/14	Lab Control Sample Dup	102	97	109	96
MB 460-799947/8	Method Blank	104	96	110	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	TOL	BFB	DBFM
		(70-150)	(68-148)	(62-150)	(54-150)
460-242115-5	074_LB-40_5-7	126	104	111	117
LCS 460-799952/4	Lab Control Sample	114	97	105	107
LCSD 460-799952/5	Lab Control Sample Dup	117	98	105	109
MB 460-799952/10	Method Blank	119	96	106	111

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	TOL	DBFM
		(75-123)	(76-120)	(80-120)	(77-124)
460-241683-B-5 MS	Matrix Spike	94	114	97	100
460-241683-B-5 MSD	Matrix Spike Duplicate	85	103	88	90
460-242115-12	081_TB-4	85	98	86	90
LCS 460-799789/4	Lab Control Sample	84	98	88	92
MB 460-799789/9	Method Blank	85	98	88	89

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

Eurofins Edison

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
 Project/Site: 2455 Third Avenue , Bronx, NY
 TOL = Toluene-d8 (Surr)
 DBFM = Dibromofluoromethane (Surr)

Job ID: 460-242115-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-242115-1	070_LB-38_16-17	52	58	62	55	56	50
460-242115-2	071_DUP-2	54	60	65	65	59	54
460-242115-3	072_LB-39_15-16	52	48	45	56	57	51
460-242115-4	073_DUP-3	66	74	45	73	74	53
460-242115-5	074_LB-40_5-7	65	80	39	77	79	39
460-242115-6	075_LB-40_15-16	68	78	62	67	44	63
460-242115-7	076_LB-41_5-7	61	83 *	49	72	84 *	39
460-242115-8	077_LB-41_15-16	54	76	42	59	73	45
460-242115-11	080_LB-44_8-10	66	80	69	85	81	60
460-242115-11 MS	080_LB-44_8-10	65	66	71	75	68	65
460-242115-11 MSD	080_LB-44_8-10	47	53	60	62	52	48
LCS 460-799848/2-A	Lab Control Sample	72	75	81	81	75	72
LCSD 460-799848/3-A	Lab Control Sample Dup	74	77	83	83	76	72
MB 460-799848/1-A	Method Blank	73	76	80	77	76	70

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPHL = Terphenyl-d14 (Surr)
 TBP = 2,4,6-Tribromophenol (Surr)
 2FP = 2-Fluorophenol (Surr)
 FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-242115-1	070_LB-38_16-17	105	98	74	73
460-242115-2	071_DUP-2	102	93	67	66
460-242115-3	072_LB-39_15-16	113	103	81	81
460-242115-4	073_DUP-3	114	110	86	87
460-242115-5	074_LB-40_5-7	119	138	77	83
460-242115-6	075_LB-40_15-16	109	104	84	84
460-242115-7	076_LB-41_5-7	123	102	82	79
460-242115-8	077_LB-41_15-16	109	100	78	75
460-242115-11	080_LB-44_8-10	102	97	76	79
460-242115-11 MS	080_LB-44_8-10	93	90	76	71
460-242115-11 MSD	080_LB-44_8-10	103	100	81	81
LCS 460-799834/2-A	Lab Control Sample	73	72	73	70
LCSD 460-799834/3-A	Lab Control Sample Dup	72	72	73	70
MB 460-799834/1-A	Method Blank	86	85	82	83

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
 TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-242115-1	070_LB-38_16-17	153 *	149	114	120
460-242115-2	071_DUP-2	179 *	178 *	128	134
460-242115-3	072_LB-39_15-16	157 *	150	120	124
460-242115-4	073_DUP-3	157 *	151 *	122	126
460-242115-5	074_LB-40_5-7	169 *	165 *	115	120
460-242115-6	075_LB-40_15-16	151 *	147	121	125
460-242115-7	076_LB-41_5-7	161 *	157 *	125	128
460-242115-8	077_LB-41_15-16	166 *	161 *	123	127
460-242115-11	080_LB-44_8-10	151 *	147	119	125
460-242115-11 MS	080_LB-44_8-10	138	135	119	118
460-242115-11 MSD	080_LB-44_8-10	143	142	118	118
LCS 460-799833/2-A	Lab Control Sample	106	102	100	101
LCSD 460-799833/3-A	Lab Control Sample Dup	105	102	98	101
MB 460-799833/1-A	Method Blank	107	105	97	104

Surrogate Legend
DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-242115-1	070_LB-38_16-17	89	108
460-242115-2	071_DUP-2	91	106
460-242115-3	072_LB-39_15-16	93	102
460-242115-4	073_DUP-3	86	102
460-242115-5	074_LB-40_5-7	109	113
460-242115-6	075_LB-40_15-16	92	110
460-242115-7	076_LB-41_5-7	90	103
460-242115-8	077_LB-41_15-16	89	104
460-242115-11	080_LB-44_8-10	82	93
460-242115-11 MS	080_LB-44_8-10	101	119
460-242115-11 MSD	080_LB-44_8-10	105	126
LCS 460-800298/2-A	Lab Control Sample	105	127
LCSD 460-800298/3-A	Lab Control Sample Dup	93	117
MB 460-800298/1-A	Method Blank	84	108

Surrogate Legend
DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-242115-1	070_LB-38_16-17	139	141	120	117	127	114	115	122
460-242115-2	071_DUP-2	134	136	114	108	116	109	110	114
460-242115-3	072_LB-39_15-16	148	134	113	107	115	111	113	115
460-242115-4	073_DUP-3	146	130	113	108	114	105	114	122
460-242115-5	074_LB-40_5-7	138	135	114	109	119	107	113	125
460-242115-6	075_LB-40_15-16	132	132	112	112	119	111	114	114
460-242115-7	076_LB-41_5-7	128	141	113	113	120	109	104	113
460-242115-8	077_LB-41_15-16	122	135	116	112	118	104	108	106
460-242115-9	078_LB-42_5-7	112	123	101	96	106	104	99	99
460-242115-11	080_LB-44_8-10	126	132	110	107	117	106	116	120
460-242115-11 MS	080_LB-44_8-10	110	113	110	108	109	108	111	111
460-242115-11 MSD	080_LB-44_8-10	122	119	115	110	114	103	115	109
460-242115-13	082_LB-43_9-11	133	137	109	105	114	108	109	110
LCS 410-168302/2-B	Lab Control Sample	124	119	108	108	110	104	105	107
MB 410-168302/1-B	Method Blank	157	132	105	99	107	107	110	118
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-242115-1	070_LB-38_16-17	117	115	123	117	105	117	138	111
460-242115-2	071_DUP-2	115	115	118	110	109	108	120	105
460-242115-3	072_LB-39_15-16	120	91	119	112	109	102	131	107
460-242115-4	073_DUP-3	121	103	120	110	110	103	123	106
460-242115-5	074_LB-40_5-7	119	102	122	113	108	80	108	115
460-242115-6	075_LB-40_15-16	110	111	125	113	109	100	104	109
460-242115-7	076_LB-41_5-7	108	108	117	113	109	96	113	99
460-242115-8	077_LB-41_15-16	100	101	126	118	106	68	84	106
460-242115-9	078_LB-42_5-7	98	100	112	101	104	95	101	92
460-242115-11	080_LB-44_8-10	107	105	121	109	104	92	104	110
460-242115-11 MS	080_LB-44_8-10	110	110	119	113	108	99	108	103
460-242115-11 MSD	080_LB-44_8-10	104	104	118	114	109	93	101	107
460-242115-13	082_LB-43_9-11	107	94	115	108	108	68	79	83
LCS 410-168302/2-B	Lab Control Sample	114	118	121	109	112	98	109	86
MB 410-168302/1-B	Method Blank	112	93	117	105	106	106	138	73
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)						
460-242115-1	070_LB-38_16-17	106	110						
460-242115-2	071_DUP-2	101	104						
460-242115-3	072_LB-39_15-16	102	105						
460-242115-4	073_DUP-3	106	108						
460-242115-5	074_LB-40_5-7	105	109						
460-242115-6	075_LB-40_15-16	107	109						
460-242115-7	076_LB-41_5-7	101	103						
460-242115-8	077_LB-41_15-16	109	109						
460-242115-9	078_LB-42_5-7	94	97						
460-242115-11	080_LB-44_8-10	101	105						
460-242115-11 MS	080_LB-44_8-10	102	106						
460-242115-11 MSD	080_LB-44_8-10	105	105						
460-242115-13	082_LB-43_9-11	98	101						

Eurofins Edison

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)
LCS 410-168302/2-B	Lab Control Sample	103	105
MB 410-168302/1-B	Method Blank	94	98

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (34-182)	M262FTS (29-189)	13C5PHA (31-142)	C4PFHA (30-144)	C8PFOA (49-127)	C9PFNA (47-136)	C6PFDA (47-128)	13C7PUA (40-135)
410-53506-A-14-B MS	Matrix Spike	107	120	107	106	114	106	102	104
410-53506-A-14-C MSD	Matrix Spike Duplicate	103	103	103	102	103	96	98	103
460-242115-10	079_FB-5	110	135	101	101	101	105	102	97
LCS 410-168919/2-A	Lab Control Sample	96	103	96	95	101	95	94	97
MB 410-168919/1-A	Method Blank	106	112	97	101	102	100	98	97

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (28-136)	PFTDA (10-144)	C3PFBS (19-178)	C3PFHS (32-145)	C8PFOS (49-126)	d3NMFOS (32-151)	d5NEFOS (37-164)	PFOSA (10-143)
410-53506-A-14-B MS	Matrix Spike	97	98	130	108	107	97	109	85
410-53506-A-14-C MSD	Matrix Spike Duplicate	95	95	113	106	97	96	105	89
460-242115-10	079_FB-5	96	94	112	102	106	98	99	84
LCS 410-168919/2-A	Lab Control Sample	88	99	115	93	93	98	95	86
MB 410-168919/1-A	Method Blank	85	94	114	105	99	92	96	83

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (41-132)	PFPeA (33-155)
410-53506-A-14-B MS	Matrix Spike	102	109
410-53506-A-14-C MSD	Matrix Spike Duplicate	94	101
460-242115-10	079_FB-5	101	106
LCS 410-168919/2-A	Lab Control Sample	96	95
MB 410-168919/1-A	Method Blank	95	102

Eurofins Edison

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 799947

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	0.94	U	20.7	23.9		ug/Kg	☼	115	78 - 132
1,1-Dichloroethane	0.94	U	20.7	23.6		ug/Kg	☼	114	76 - 129
1,1-Dichloroethene	0.94	U	20.7	25.6		ug/Kg	☼	123	77 - 132
1,2,4-Trimethylbenzene	0.94	U	20.7	18.8		ug/Kg	☼	90	79 - 120
1,2-Dichlorobenzene	0.94	U	20.7	18.5		ug/Kg	☼	89	80 - 120
1,2-Dichloroethane	0.94	U	20.7	22.4		ug/Kg	☼	108	70 - 132
1,3,5-Trimethylbenzene	0.94	U	20.7	19.1		ug/Kg	☼	92	79 - 120
1,3-Dichlorobenzene	0.94	U	20.7	18.5		ug/Kg	☼	89	80 - 120
1,4-Dichlorobenzene	0.94	U	20.7	18.5		ug/Kg	☼	89	80 - 120
1,4-Dioxane	19	U	415	463		ug/Kg	☼	112	73 - 136
2-Butanone (MEK)	4.7	U	104	101		ug/Kg	☼	97	75 - 120
Acetone	5.6	U	104	93.9		ug/Kg	☼	91	63 - 131
Benzene	0.94	U	20.7	22.3		ug/Kg	☼	107	80 - 123
Carbon tetrachloride	0.94	U	20.7	24.1		ug/Kg	☼	116	72 - 136
Chlorobenzene	0.94	U	20.7	20.7		ug/Kg	☼	100	80 - 120
Chloroform	0.94	U	20.7	23.7		ug/Kg	☼	114	79 - 126
cis-1,2-Dichloroethene	0.94	U	20.7	23.7		ug/Kg	☼	114	80 - 123
Ethylbenzene	0.94	U	20.7	21.6		ug/Kg	☼	104	80 - 120
Methyl tert-butyl ether	0.94	U	20.7	23.0		ug/Kg	☼	111	80 - 125
Methylene Chloride	1.9	U	20.7	23.8		ug/Kg	☼	115	76 - 127
m-Xylene & p-Xylene	0.94	U	20.7	20.6		ug/Kg	☼	99	80 - 120
n-Butylbenzene	0.94	U	20.7	17.2		ug/Kg	☼	83	77 - 123
N-Propylbenzene	0.94	U	20.7	19.3		ug/Kg	☼	93	78 - 120
o-Xylene	0.94	U	20.7	20.8		ug/Kg	☼	100	80 - 120
sec-Butylbenzene	0.94	U	20.7	18.8		ug/Kg	☼	91	78 - 120
tert-Butylbenzene	0.94	U	20.7	19.5		ug/Kg	☼	94	76 - 120
Tetrachloroethene	0.94	U	20.7	21.9		ug/Kg	☼	105	78 - 123
Toluene	0.94	U	20.7	21.1		ug/Kg	☼	102	80 - 120
trans-1,2-Dichloroethene	0.94	U	20.7	24.1		ug/Kg	☼	116	78 - 128
Trichloroethene	0.94	U	20.7	22.0		ug/Kg	☼	106	79 - 120
Vinyl chloride	0.94	U	20.7	21.8		ug/Kg	☼	105	56 - 147
Xylenes, Total	1.9	U	41.5	41.4		ug/Kg	☼	100	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	128		77 - 145
4-Bromofluorobenzene	117		70 - 139
Dibromofluoromethane (Surr)	134		48 - 150
Toluene-d8 (Surr)	116		80 - 120

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 799947

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799722

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1,1,1-Trichloroethane	0.94	U	18.0	15.8	*	ug/Kg	☼	88	78 - 132	41	30
1,1-Dichloroethane	0.94	U	18.0	15.5	*	ug/Kg	☼	86	76 - 129	42	30
1,1-Dichloroethene	0.94	U	18.0	17.1	*	ug/Kg	☼	95	77 - 132	40	30
1,2,4-Trimethylbenzene	0.94	U	18.0	13.2	*	ug/Kg	☼	73	79 - 120	35	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 799947

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799722

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichlorobenzene	0.94	U	18.0	13.2	*	ug/Kg	☼	73	80 - 120	34	30
1,2-Dichloroethane	0.94	U	18.0	14.5	*	ug/Kg	☼	81	70 - 132	43	30
1,3,5-Trimethylbenzene	0.94	U	18.0	13.4	*	ug/Kg	☼	75	79 - 120	35	30
1,3-Dichlorobenzene	0.94	U	18.0	13.3	*	ug/Kg	☼	74	80 - 120	33	30
1,4-Dichlorobenzene	0.94	U	18.0	13.3	*	ug/Kg	☼	74	80 - 120	33	30
1,4-Dioxane	19	U	359	318	*	ug/Kg	☼	89	73 - 136	37	30
2-Butanone (MEK)	4.7	U	89.8	64.2	*	ug/Kg	☼	72	75 - 120	44	30
Acetone	5.6	U	89.8	58.5	*	ug/Kg	☼	65	63 - 131	46	30
Benzene	0.94	U	18.0	14.6	*	ug/Kg	☼	81	80 - 123	42	30
Carbon tetrachloride	0.94	U	18.0	16.1	*	ug/Kg	☼	90	72 - 136	40	30
Chlorobenzene	0.94	U	18.0	13.8	*	ug/Kg	☼	77	80 - 120	40	30
Chloroform	0.94	U	18.0	15.5	*	ug/Kg	☼	86	79 - 126	42	30
cis-1,2-Dichloroethene	0.94	U	18.0	15.5	*	ug/Kg	☼	86	80 - 123	42	30
Ethylbenzene	0.94	U	18.0	14.4	*	ug/Kg	☼	80	80 - 120	40	30
Methyl tert-butyl ether	0.94	U	18.0	14.8	*	ug/Kg	☼	82	80 - 125	44	30
Methylene Chloride	1.9	U	18.0	15.4	*	ug/Kg	☼	86	76 - 127	43	30
m-Xylene & p-Xylene	0.94	U	18.0	13.8	*	ug/Kg	☼	77	80 - 120	40	30
n-Butylbenzene	0.94	U	18.0	12.7	*	ug/Kg	☼	71	77 - 123	30	30
N-Propylbenzene	0.94	U	18.0	13.6	*	ug/Kg	☼	76	78 - 120	34	30
o-Xylene	0.94	U	18.0	13.9	*	ug/Kg	☼	77	80 - 120	40	30
sec-Butylbenzene	0.94	U	18.0	13.5	*	ug/Kg	☼	75	78 - 120	33	30
tert-Butylbenzene	0.94	U	18.0	13.6	*	ug/Kg	☼	75	76 - 120	36	30
Tetrachloroethene	0.94	U	18.0	14.4	*	ug/Kg	☼	80	78 - 123	41	30
Toluene	0.94	U	18.0	14.0	*	ug/Kg	☼	78	80 - 120	40	30
trans-1,2-Dichloroethene	0.94	U	18.0	16.0	*	ug/Kg	☼	89	78 - 128	40	30
Trichloroethene	0.94	U	18.0	14.6	*	ug/Kg	☼	82	79 - 120	40	30
Vinyl chloride	0.94	U	18.0	14.8	*	ug/Kg	☼	83	56 - 147	38	30
Xylenes, Total	1.9	U	35.9	27.7	*	ug/Kg	☼	77	80 - 120	40	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		77 - 145
4-Bromofluorobenzene	100		70 - 139
Dibromofluoromethane (Surr)	112		48 - 150
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: MB 460-799789/9

Matrix: Water

Analysis Batch: 799789

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/04/21 10:37	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/04/21 10:37	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/04/21 10:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/04/21 10:37	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/04/21 10:37	1
Acetone	5.0	U	5.0	4.4	ug/L			09/04/21 10:37	1
Benzene	1.0	U	1.0	0.20	ug/L			09/04/21 10:37	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/04/21 10:37	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-799789/9

Matrix: Water

Analysis Batch: 799789

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	1.0	U	1.0	0.33	ug/L			09/04/21 10:37	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/04/21 10:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/04/21 10:37	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/04/21 10:37	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/04/21 10:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/04/21 10:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/04/21 10:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/04/21 10:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/04/21 10:37	1
1,4-Dioxane	50	U	50	28	ug/L			09/04/21 10:37	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 10:37	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/04/21 10:37	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/04/21 10:37	1
Toluene	1.0	U	1.0	0.38	ug/L			09/04/21 10:37	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 10:37	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/04/21 10:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/04/21 10:37	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/04/21 10:37	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/04/21 10:37	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/04/21 10:37	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/04/21 10:37	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/04/21 10:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		75 - 123		09/04/21 10:37	1
4-Bromofluorobenzene	98		76 - 120		09/04/21 10:37	1
Toluene-d8 (Surr)	88		80 - 120		09/04/21 10:37	1
Dibromofluoromethane (Surr)	89		77 - 124		09/04/21 10:37	1

Lab Sample ID: LCS 460-799789/4

Matrix: Water

Analysis Batch: 799789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	18.9		ug/L		94	68 - 133
1,1-Dichloroethane	20.0	18.9		ug/L		94	73 - 130
1,2-Dichloroethane	20.0	18.5		ug/L		92	75 - 121
1,1,1-Trichloroethane	20.0	18.9		ug/L		94	68 - 128
2-Butanone (MEK)	100	95.9		ug/L		96	69 - 128
Acetone	100	85.6		ug/L		86	61 - 134
Benzene	20.0	18.7		ug/L		93	78 - 126
Carbon tetrachloride	20.0	17.1		ug/L		86	56 - 131
Chloroform	20.0	19.5		ug/L		98	78 - 125
Chlorobenzene	20.0	18.7		ug/L		93	80 - 119
cis-1,2-Dichloroethene	20.0	19.5		ug/L		97	78 - 121
Ethylbenzene	20.0	18.5		ug/L		92	78 - 120
Methylene Chloride	20.0	19.4		ug/L		97	74 - 127
m-Xylene & p-Xylene	20.0	18.7		ug/L		94	78 - 123

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799789/4

Matrix: Water

Analysis Batch: 799789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	20.0	18.3		ug/L		91	65 - 131
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	80 - 121
1,4-Dichlorobenzene	20.0	18.8		ug/L		94	80 - 118
o-Xylene	20.0	18.9		ug/L		94	78 - 122
1,2-Dichlorobenzene	20.0	19.2		ug/L		96	79 - 122
1,4-Dioxane	400	380		ug/L		95	70 - 142
1,2,4-Trimethylbenzene	20.0	18.2		ug/L		91	75 - 125
Tetrachloroethene	20.0	19.4		ug/L		97	70 - 127
1,3,5-Trimethylbenzene	20.0	18.5		ug/L		92	75 - 125
Toluene	20.0	18.3		ug/L		92	78 - 119
N-Propylbenzene	20.0	18.9		ug/L		95	74 - 129
sec-Butylbenzene	20.0	18.6		ug/L		93	73 - 129
trans-1,2-Dichloroethene	20.0	19.4		ug/L		97	74 - 126
tert-Butylbenzene	20.0	18.3		ug/L		91	72 - 124
Trichloroethene	20.0	16.8		ug/L		84	71 - 121
n-Butylbenzene	20.0	19.2		ug/L		96	69 - 135
Vinyl chloride	20.0	20.7		ug/L		103	61 - 144
Xylenes, Total	40.0	37.6		ug/L		94	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		75 - 123
4-Bromofluorobenzene	98		76 - 120
Toluene-d8 (Surr)	88		80 - 120
Dibromofluoromethane (Surr)	92		77 - 124

Lab Sample ID: 460-241683-B-5 MS

Matrix: Water

Analysis Batch: 799789

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	1.0	U	200	196		ug/L		98	68 - 133
1,1-Dichloroethane	0.62	J	200	203		ug/L		101	73 - 130
1,2-Dichloroethane	0.56	J	200	207		ug/L		103	75 - 121
1,1,1-Trichloroethane	1.0	U	200	205		ug/L		103	68 - 128
2-Butanone (MEK)	5.0	U	1000	1020		ug/L		102	69 - 128
Acetone	5.0	U	1000	869		ug/L		87	61 - 134
Benzene	1.0	U	200	202		ug/L		101	78 - 126
Carbon tetrachloride	1.0	U	200	184		ug/L		92	56 - 131
Chloroform	1.0	U	200	214		ug/L		107	78 - 125
Chlorobenzene	7.8		200	216		ug/L		104	80 - 119
cis-1,2-Dichloroethene	0.78	J	200	211		ug/L		105	78 - 121
Ethylbenzene	1.0	U	200	202		ug/L		101	78 - 120
Methylene Chloride	1.0	U	200	208		ug/L		104	74 - 127
m-Xylene & p-Xylene	1.0	U	200	203		ug/L		102	78 - 123
Methyl tert-butyl ether	0.87	J	200	200		ug/L		100	65 - 131
1,3-Dichlorobenzene	1.0	U	200	213		ug/L		107	80 - 121
1,4-Dichlorobenzene	2.1		200	210		ug/L		104	80 - 118
o-Xylene	1.0	U	200	207		ug/L		104	78 - 122

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-241683-B-5 MS

Matrix: Water

Analysis Batch: 799789

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analysis Data: 10/1/03

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier			Limits	Limits		
1,2-Dichlorobenzene	1.3		200	213		ug/L		106	79 - 122		
1,4-Dioxane	39	J	4000	4000		ug/L		99	70 - 142		
1,2,4-Trimethylbenzene	1.0	U	200	199		ug/L		99	75 - 125		
Tetrachloroethene	1.0	U	200	214		ug/L		107	70 - 127		
1,3,5-Trimethylbenzene	1.0	U	200	200		ug/L		100	75 - 125		
Toluene	1.0	U	200	205		ug/L		102	78 - 119		
N-Propylbenzene	1.0	U	200	207		ug/L		103	74 - 129		
sec-Butylbenzene	1.0	U	200	203		ug/L		102	73 - 129		
trans-1,2-Dichloroethene	1.0	U	200	206		ug/L		103	74 - 126		
tert-Butylbenzene	1.0	U	200	199		ug/L		99	72 - 124		
Trichloroethene	0.39	J	200	186		ug/L		93	71 - 121		
n-Butylbenzene	1.0	U	200	207		ug/L		104	69 - 135		
Vinyl chloride	1.0	U	200	233		ug/L		116	61 - 144		
Xylenes, Total	2.0	U	400	411		ug/L		103	78 - 122		
							</				

Lab Sample ID: 460-241683-B-5 MSD

Matrix: Water

Analysis Batch: 799789

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	1.0	U	200	179		ug/L		90	68 - 133	9	30
1,1-Dichloroethane	0.62	J	200	181		ug/L		90	73 - 130	11	30
1,2-Dichloroethane	0.56	J	200	189		ug/L		94	75 - 121	9	30
1,1,1-Trichloroethane	1.0	U	200	188		ug/L		94	68 - 128	9	30
2-Butanone (MEK)	5.0	U	1000	926		ug/L		93	69 - 128	10	30
Acetone	5.0	U	1000	754		ug/L		75	61 - 134	14	30
Benzene	1.0	U	200	185		ug/L		93	78 - 126	9	30
Carbon tetrachloride	1.0	U	200	166		ug/L		83	56 - 131	11	30
Chloroform	1.0	U	200	193		ug/L		97	78 - 125	10	30
Chlorobenzene	7.8		200	194		ug/L		93	80 - 119	11	30
cis-1,2-Dichloroethene	0.78	J	200	195		ug/L		97	78 - 121	8	30
Ethylbenzene	1.0	U	200	185		ug/L		92	78 - 120	9	30
Methylene Chloride	1.0	U	200	187		ug/L		93	74 - 127	11	30
m-Xylene & p-Xylene	1.0	U	200	181		ug/L		91	78 - 123	11	30
Methyl tert-butyl ether	0.87	J	200	182		ug/L		91	65 - 131	10	30
1,3-Dichlorobenzene	1.0	U	200	193		ug/L		96	80 - 121	10	30
1,4-Dichlorobenzene	2.1		200	195		ug/L		96	80 - 118	7	30
o-Xylene	1.0	U	200	185		ug/L		93	78 - 122	11	30
1,2-Dichlorobenzene	1.3		200	193		ug/L		96	79 - 122	10	30
1,4-Dioxane	39	J	4000	3520		ug/L		87	70 - 142	13	30
1,2,4-Trimethylbenzene	1.0	U	200	180		ug/L		90	75 - 125	10	30
Tetrachloroethene	1.0	U	200	191		ug/L		95	70 - 127	12	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-241683-B-5 MSD

Matrix: Water

Analysis Batch: 799789

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	1.0	U	200	180		ug/L		90	75 - 125	10	30
Toluene	1.0	U	200	183		ug/L		92	78 - 119	11	30
N-Propylbenzene	1.0	U	200	184		ug/L		92	74 - 129	12	30
sec-Butylbenzene	1.0	U	200	185		ug/L		92	73 - 129	10	30
trans-1,2-Dichloroethene	1.0	U	200	190		ug/L		95	74 - 126	8	30
tert-Butylbenzene	1.0	U	200	180		ug/L		90	72 - 124	10	30
Trichloroethene	0.39	J	200	166		ug/L		83	71 - 121	11	30
n-Butylbenzene	1.0	U	200	187		ug/L		94	69 - 135	10	30
Vinyl chloride	1.0	U	200	210		ug/L		105	61 - 144	10	30
Xylenes, Total	2.0	U	400	367		ug/L		92	78 - 122	11	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		75 - 123
4-Bromofluorobenzene	103		76 - 120
Toluene-d8 (Surr)	88		80 - 120
Dibromofluoromethane (Surr)	90		77 - 124

Lab Sample ID: MB 460-799947/8

Matrix: Solid

Analysis Batch: 799947

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			09/07/21 08:27	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			09/07/21 08:27	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			09/07/21 08:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			09/07/21 08:27	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			09/07/21 08:27	1
Acetone	6.0	U	6.0	5.7	ug/Kg			09/07/21 08:27	1
Benzene	1.0	U	1.0	0.26	ug/Kg			09/07/21 08:27	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			09/07/21 08:27	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			09/07/21 08:27	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			09/07/21 08:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			09/07/21 08:27	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			09/07/21 08:27	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			09/07/21 08:27	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			09/07/21 08:27	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			09/07/21 08:27	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			09/07/21 08:27	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			09/07/21 08:27	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			09/07/21 08:27	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			09/07/21 08:27	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			09/07/21 08:27	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			09/07/21 08:27	1
Toluene	1.0	U	1.0	0.23	ug/Kg			09/07/21 08:27	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			09/07/21 08:27	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/07/21 08:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			09/07/21 08:27	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			09/07/21 08:27	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-799947/8

Matrix: Solid

Analysis Batch: 799947

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			09/07/21 08:27	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/07/21 08:27	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			09/07/21 08:27	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			09/07/21 08:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 145		09/07/21 08:27	1
4-Bromofluorobenzene	96		70 - 139		09/07/21 08:27	1
Toluene-d8 (Surr)	96		80 - 120		09/07/21 08:27	1
Dibromofluoromethane (Surr)	110		48 - 150		09/07/21 08:27	1

Lab Sample ID: LCS 460-799947/3

Matrix: Solid

Analysis Batch: 799947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	21.2		ug/Kg		106	77 - 132
1,1-Dichloroethane	20.0	19.4		ug/Kg		97	76 - 129
1,2-Dichloroethane	20.0	18.5		ug/Kg		93	70 - 132
1,1,1-Trichloroethane	20.0	19.5		ug/Kg		98	78 - 132
2-Butanone (MEK)	100	87.8		ug/Kg		88	75 - 120
Acetone	100	78.2		ug/Kg		78	63 - 131
Benzene	20.0	18.8		ug/Kg		94	80 - 123
Carbon tetrachloride	20.0	19.9		ug/Kg		99	72 - 136
Chloroform	20.0	19.4		ug/Kg		97	79 - 126
Chlorobenzene	20.0	17.8		ug/Kg		89	80 - 120
cis-1,2-Dichloroethene	20.0	19.4		ug/Kg		97	80 - 123
Ethylbenzene	20.0	18.6		ug/Kg		93	80 - 120
Methylene Chloride	20.0	19.3		ug/Kg		97	76 - 127
m-Xylene & p-Xylene	20.0	18.0		ug/Kg		90	80 - 120
Methyl tert-butyl ether	20.0	18.8		ug/Kg		94	80 - 125
1,3-Dichlorobenzene	20.0	18.6		ug/Kg		93	80 - 120
1,4-Dichlorobenzene	20.0	18.5		ug/Kg		92	80 - 120
o-Xylene	20.0	18.1		ug/Kg		90	80 - 120
1,2-Dichlorobenzene	20.0	18.3		ug/Kg		91	80 - 120
1,4-Dioxane	400	335		ug/Kg		84	73 - 136
1,2,4-Trimethylbenzene	20.0	18.0		ug/Kg		90	79 - 120
Tetrachloroethene	20.0	18.9		ug/Kg		94	78 - 123
1,3,5-Trimethylbenzene	20.0	18.4		ug/Kg		92	79 - 120
Toluene	20.0	18.0		ug/Kg		90	80 - 120
N-Propylbenzene	20.0	18.4		ug/Kg		92	78 - 120
sec-Butylbenzene	20.0	18.8		ug/Kg		94	78 - 120
trans-1,2-Dichloroethene	20.0	20.1		ug/Kg		100	78 - 128
tert-Butylbenzene	20.0	18.8		ug/Kg		94	76 - 120
Trichloroethene	20.0	18.2		ug/Kg		91	79 - 120
n-Butylbenzene	20.0	18.8		ug/Kg		94	77 - 123
Vinyl chloride	20.0	19.1		ug/Kg		95	56 - 147
Xylenes, Total	40.0	36.1		ug/Kg		90	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799947/3

Matrix: Solid

Analysis Batch: 799947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		77 - 145
4-Bromofluorobenzene	98		70 - 139
Toluene-d8 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	109		48 - 150

Lab Sample ID: LCSD 460-799947/14

Matrix: Solid

Analysis Batch: 799947

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	22.8		ug/Kg		114	77 - 132	7	30
1,1-Dichloroethane	20.0	21.1		ug/Kg		105	76 - 129	8	30
1,2-Dichloroethane	20.0	19.9		ug/Kg		100	70 - 132	7	30
1,1,1-Trichloroethane	20.0	21.5		ug/Kg		107	78 - 132	9	30
2-Butanone (MEK)	100	92.3		ug/Kg		92	75 - 120	5	30
Acetone	100	78.9		ug/Kg		79	63 - 131	1	30
Benzene	20.0	19.9		ug/Kg		100	80 - 123	6	30
Carbon tetrachloride	20.0	21.8		ug/Kg		109	72 - 136	9	30
Chloroform	20.0	21.0		ug/Kg		105	79 - 126	8	30
Chlorobenzene	20.0	19.3		ug/Kg		96	80 - 120	8	30
cis-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	80 - 123	7	30
Ethylbenzene	20.0	20.0		ug/Kg		100	80 - 120	7	30
Methylene Chloride	20.0	21.0		ug/Kg		105	76 - 127	8	30
m-Xylene & p-Xylene	20.0	19.0		ug/Kg		95	80 - 120	5	30
Methyl tert-butyl ether	20.0	20.2		ug/Kg		101	80 - 125	7	30
1,3-Dichlorobenzene	20.0	19.0		ug/Kg		95	80 - 120	2	30
1,4-Dichlorobenzene	20.0	18.7		ug/Kg		94	80 - 120	1	30
o-Xylene	20.0	19.4		ug/Kg		97	80 - 120	7	30
1,2-Dichlorobenzene	20.0	18.3		ug/Kg		91	80 - 120	0	30
1,4-Dioxane	400	348		ug/Kg		87	73 - 136	4	30
1,2,4-Trimethylbenzene	20.0	18.6		ug/Kg		93	79 - 120	3	30
Tetrachloroethene	20.0	20.2		ug/Kg		101	78 - 123	7	30
1,3,5-Trimethylbenzene	20.0	19.0		ug/Kg		95	79 - 120	3	30
Toluene	20.0	19.2		ug/Kg		96	80 - 120	7	30
N-Propylbenzene	20.0	19.1		ug/Kg		95	78 - 120	4	30
sec-Butylbenzene	20.0	19.7		ug/Kg		99	78 - 120	4	30
trans-1,2-Dichloroethene	20.0	21.8		ug/Kg		109	78 - 128	8	30
tert-Butylbenzene	20.0	19.4		ug/Kg		97	76 - 120	3	30
Trichloroethene	20.0	20.1		ug/Kg		101	79 - 120	10	30
n-Butylbenzene	20.0	19.2		ug/Kg		96	77 - 123	2	30
Vinyl chloride	20.0	19.8		ug/Kg		99	56 - 147	4	30
Xylenes, Total	40.0	38.4		ug/Kg		96	80 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 145
4-Bromofluorobenzene	97		70 - 139
Toluene-d8 (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	109		48 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-799952/10

Matrix: Solid

Analysis Batch: 799952

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	50	U	50	13	ug/Kg			09/07/21 09:41	50
1,1-Dichloroethane	50	U	50	12	ug/Kg			09/07/21 09:41	50
1,2-Dichloroethane	50	U	50	13	ug/Kg			09/07/21 09:41	50
1,1,1-Trichloroethane	50	U	50	14	ug/Kg			09/07/21 09:41	50
2-Butanone (MEK)	250	U	250	110	ug/Kg			09/07/21 09:41	50
Acetone	250	U	250	220	ug/Kg			09/07/21 09:41	50
Benzene	50	U	50	10	ug/Kg			09/07/21 09:41	50
Carbon tetrachloride	50	U	50	17	ug/Kg			09/07/21 09:41	50
Chloroform	50	U	50	11	ug/Kg			09/07/21 09:41	50
Chlorobenzene	50	U	50	12	ug/Kg			09/07/21 09:41	50
cis-1,2-Dichloroethene	50	U	50	13	ug/Kg			09/07/21 09:41	50
Ethylbenzene	50	U	50	15	ug/Kg			09/07/21 09:41	50
Methylene Chloride	50	U	50	11	ug/Kg			09/07/21 09:41	50
Methyl tert-butyl ether	50	U	50	11	ug/Kg			09/07/21 09:41	50
1,3-Dichlorobenzene	50	U	50	17	ug/Kg			09/07/21 09:41	50
1,4-Dichlorobenzene	50	U	50	17	ug/Kg			09/07/21 09:41	50
1,2-Dichlorobenzene	50	U	50	11	ug/Kg			09/07/21 09:41	50
1,4-Dioxane	2500	U	2500	1400	ug/Kg			09/07/21 09:41	50
1,2,4-Trimethylbenzene	50	U	50	12	ug/Kg			09/07/21 09:41	50
Tetrachloroethene	50	U	50	18	ug/Kg			09/07/21 09:41	50
1,3,5-Trimethylbenzene	50	U	50	13	ug/Kg			09/07/21 09:41	50
Toluene	50	U	50	13	ug/Kg			09/07/21 09:41	50
N-Propylbenzene	50	U	50	15	ug/Kg			09/07/21 09:41	50
sec-Butylbenzene	50	U	50	16	ug/Kg			09/07/21 09:41	50
trans-1,2-Dichloroethene	50	U	50	9.0	ug/Kg			09/07/21 09:41	50
tert-Butylbenzene	50	U	50	14	ug/Kg			09/07/21 09:41	50
Trichloroethene	50	U	50	11	ug/Kg			09/07/21 09:41	50
n-Butylbenzene	50	U	50	14	ug/Kg			09/07/21 09:41	50
Vinyl chloride	50	U	50	10	ug/Kg			09/07/21 09:41	50
Xylenes, Total	100	U	100	14	ug/Kg			09/07/21 09:41	50

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		70 - 150		09/07/21 09:41	50
4-Bromofluorobenzene	106		62 - 150		09/07/21 09:41	50
Toluene-d8 (Surr)	96		68 - 148		09/07/21 09:41	50
Dibromofluoromethane (Surr)	111		54 - 150		09/07/21 09:41	50

Lab Sample ID: LCS 460-799952/4

Matrix: Solid

Analysis Batch: 799952

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	1000	978		ug/Kg		98	72 - 128
1,1-Dichloroethane	1000	936		ug/Kg		94	79 - 124
1,2-Dichloroethane	1000	1000		ug/Kg		100	62 - 132
1,1,1-Trichloroethane	1000	977		ug/Kg		98	73 - 121
2-Butanone (MEK)	5000	4290		ug/Kg		86	65 - 131
Acetone	5000	4870		ug/Kg		97	56 - 127

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799952/4

Matrix: Solid

Analysis Batch: 799952

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1000	942		ug/Kg		94	80 - 120
Carbon tetrachloride	1000	985		ug/Kg		99	68 - 123
Chloroform	1000	965		ug/Kg		96	80 - 120
Chlorobenzene	1000	891		ug/Kg		89	80 - 120
cis-1,2-Dichloroethene	1000	938		ug/Kg		94	80 - 120
Ethylbenzene	1000	826		ug/Kg		83	72 - 121
Methylene Chloride	1000	877		ug/Kg		88	74 - 127
m-Xylene & p-Xylene	1000	818		ug/Kg		82	72 - 120
Methyl tert-butyl ether	1000	952		ug/Kg		95	77 - 125
1,3-Dichlorobenzene	1000	1030		ug/Kg		103	80 - 120
1,4-Dichlorobenzene	1000	1000		ug/Kg		100	80 - 120
o-Xylene	1000	836		ug/Kg		84	72 - 123
1,2-Dichlorobenzene	1000	1000		ug/Kg		100	80 - 120
1,4-Dioxane	20000	21500		ug/Kg		108	80 - 126
1,2,4-Trimethylbenzene	1000	938		ug/Kg		94	80 - 121
Tetrachloroethene	1000	963		ug/Kg		96	73 - 120
1,3,5-Trimethylbenzene	1000	955		ug/Kg		96	79 - 120
Toluene	1000	894		ug/Kg		89	80 - 120
N-Propylbenzene	1000	947		ug/Kg		95	79 - 122
sec-Butylbenzene	1000	1040		ug/Kg		104	77 - 128
trans-1,2-Dichloroethene	1000	902		ug/Kg		90	77 - 127
tert-Butylbenzene	1000	999		ug/Kg		100	76 - 123
Trichloroethene	1000	937		ug/Kg		94	77 - 120
n-Butylbenzene	1000	1070		ug/Kg		107	75 - 135
Vinyl chloride	1000	944		ug/Kg		94	57 - 150
Xylenes, Total	2000	1650		ug/Kg		83	72 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	114		70 - 150
4-Bromofluorobenzene	105		62 - 150
Toluene-d8 (Surr)	97		68 - 148
Dibromofluoromethane (Surr)	107		54 - 150

Lab Sample ID: LCSD 460-799952/5

Matrix: Solid

Analysis Batch: 799952

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	1000	985		ug/Kg		99	72 - 128	1	30
1,1-Dichloroethane	1000	1020		ug/Kg		102	79 - 124	8	30
1,2-Dichloroethane	1000	1080		ug/Kg		108	62 - 132	7	30
1,1,1-Trichloroethane	1000	1050		ug/Kg		105	73 - 121	7	30
2-Butanone (MEK)	5000	4560		ug/Kg		91	65 - 131	6	30
Acetone	5000	5240		ug/Kg		105	56 - 127	7	30
Benzene	1000	1020		ug/Kg		102	80 - 120	8	30
Carbon tetrachloride	1000	1040		ug/Kg		104	68 - 123	6	30
Chloroform	1000	1020		ug/Kg		102	80 - 120	6	30
Chlorobenzene	1000	949		ug/Kg		95	80 - 120	6	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-799952/5

Matrix: Solid

Analysis Batch: 799952

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1000	1020		ug/Kg		102	80 - 120	8	30
Ethylbenzene	1000	893		ug/Kg		89	72 - 121	8	30
Methylene Chloride	1000	940		ug/Kg		94	74 - 127	7	30
m-Xylene & p-Xylene	1000	882		ug/Kg		88	72 - 120	8	30
Methyl tert-butyl ether	1000	1030		ug/Kg		103	77 - 125	8	30
1,3-Dichlorobenzene	1000	1110		ug/Kg		111	80 - 120	8	30
1,4-Dichlorobenzene	1000	1110		ug/Kg		111	80 - 120	10	30
o-Xylene	1000	904		ug/Kg		90	72 - 123	8	30
1,2-Dichlorobenzene	1000	1090		ug/Kg		109	80 - 120	8	30
1,4-Dioxane	20000	24000		ug/Kg		120	80 - 126	11	30
1,2,4-Trimethylbenzene	1000	1020		ug/Kg		102	80 - 121	9	30
Tetrachloroethene	1000	1010		ug/Kg		101	73 - 120	5	30
1,3,5-Trimethylbenzene	1000	1040		ug/Kg		104	79 - 120	8	30
Toluene	1000	971		ug/Kg		97	80 - 120	8	30
N-Propylbenzene	1000	1000		ug/Kg		100	79 - 122	6	30
sec-Butylbenzene	1000	1100		ug/Kg		110	77 - 128	5	30
trans-1,2-Dichloroethene	1000	969		ug/Kg		97	77 - 127	7	30
tert-Butylbenzene	1000	1080		ug/Kg		108	76 - 123	7	30
Trichloroethene	1000	992		ug/Kg		99	77 - 120	6	30
n-Butylbenzene	1000	1160		ug/Kg		116	75 - 135	8	30
Vinyl chloride	1000	917		ug/Kg		92	57 - 150	3	30
Xylenes, Total	2000	1790		ug/Kg		89	72 - 121	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	117		70 - 150
4-Bromofluorobenzene	105		62 - 150
Toluene-d8 (Surr)	98		68 - 148
Dibromofluoromethane (Surr)	109		54 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-799848/1-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799848

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
2-Methylphenol	330	U	330	12	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Pentachlorophenol	270	U	270	68	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Naphthalene	330	U	330	5.7	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Acenaphthylene	330	U	330	3.3	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Acenaphthene	330	U	330	9.4	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Dibenzofuran	330	U	330	4.6	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Fluorene	330	U	330	4.5	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Hexachlorobenzene	33	U	33	16	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Phenanthrene	330	U	330	5.8	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Anthracene	330	U	330	10	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Fluoranthene	330	U	330	12	ug/Kg		09/04/21 16:35	09/04/21 20:29	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-799848/1-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799848

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	330	U	330	8.2	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Chrysene	330	U	330	5.6	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
1,4-Dioxane	33	U	33	29	ug/Kg		09/04/21 16:35	09/04/21 20:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	73		11 - 104	09/04/21 16:35	09/04/21 20:29	1
Phenol-d5 (Surr)	76		15 - 100	09/04/21 16:35	09/04/21 20:29	1
Terphenyl-d14 (Surr)	80		12 - 126	09/04/21 16:35	09/04/21 20:29	1
2,4,6-Tribromophenol (Surr)	77		10 - 123	09/04/21 16:35	09/04/21 20:29	1
2-Fluorophenol (Surr)	76		10 - 105	09/04/21 16:35	09/04/21 20:29	1
2-Fluorobiphenyl	70		14 - 103	09/04/21 16:35	09/04/21 20:29	1

Lab Sample ID: LCS 460-799848/2-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	3330	2400		ug/Kg		72	63 - 110
2-Methylphenol	3330	2520		ug/Kg		76	63 - 108
3 & 4 Methylphenol	3330	2360		ug/Kg		71	61 - 108
Pentachlorophenol	6670	4170		ug/Kg		63	44 - 126
Naphthalene	3330	2480		ug/Kg		75	63 - 106
Acenaphthylene	3330	2400		ug/Kg		72	64 - 108
Acenaphthene	3330	2090		ug/Kg		63	53 - 110
Dibenzofuran	3330	2260		ug/Kg		68	65 - 108
Fluorene	3330	2270		ug/Kg		68	65 - 109
Hexachlorobenzene	3330	2610		ug/Kg		78	61 - 113
Phenanthrene	3330	2400		ug/Kg		72	66 - 112
Anthracene	3330	2410		ug/Kg		72	67 - 114
Fluoranthene	3330	2300		ug/Kg		69	61 - 106
Pyrene	3330	2440		ug/Kg		73	61 - 111
Benzo[a]anthracene	3330	2360		ug/Kg		71	67 - 115
Chrysene	3330	2350	*	ug/Kg		70	71 - 122
Benzo[b]fluoranthene	3330	2580		ug/Kg		77	70 - 125
Benzo[k]fluoranthene	3330	2680		ug/Kg		80	67 - 115
Benzo[a]pyrene	3330	2890		ug/Kg		87	73 - 123
Indeno[1,2,3-cd]pyrene	3330	2590		ug/Kg		78	62 - 121
Dibenz(a,h)anthracene	3330	2750		ug/Kg		82	66 - 119
Benzo[g,h,i]perylene	3330	2490		ug/Kg		75	61 - 113
1,4-Dioxane	3330	1310		ug/Kg		39	31 - 81

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-799848/2-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799848

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	72		11 - 104
Phenol-d5 (Surr)	75		15 - 100
Terphenyl-d14 (Surr)	81		12 - 126
2,4,6-Tribromophenol (Surr)	81		10 - 123
2-Fluorophenol (Surr)	75		10 - 105
2-Fluorobiphenyl	72		14 - 103

Lab Sample ID: LCSD 460-799848/3-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenol	3330	2470		ug/Kg		74	63 - 110	3	30
2-Methylphenol	3330	2580		ug/Kg		77	63 - 108	2	30
3 & 4 Methylphenol	3330	2370		ug/Kg		71	61 - 108	0	30
Pentachlorophenol	6670	4360		ug/Kg		65	44 - 126	4	30
Naphthalene	3330	2520		ug/Kg		76	63 - 106	1	30
Acenaphthylene	3330	2420		ug/Kg		73	64 - 108	1	30
Acenaphthene	3330	2100		ug/Kg		63	53 - 110	1	30
Dibenzofuran	3330	2290		ug/Kg		69	65 - 108	1	30
Fluorene	3330	2330		ug/Kg		70	65 - 109	2	30
Hexachlorobenzene	3330	2710		ug/Kg		81	61 - 113	4	30
Phenanthrene	3330	2470		ug/Kg		74	66 - 112	3	30
Anthracene	3330	2510		ug/Kg		75	67 - 114	4	30
Fluoranthene	3330	2390		ug/Kg		72	61 - 106	4	30
Pyrene	3330	2500		ug/Kg		75	61 - 111	2	30
Benzo[a]anthracene	3330	2430		ug/Kg		73	67 - 115	3	30
Chrysene	3330	2380		ug/Kg		71	71 - 122	1	30
Benzo[b]fluoranthene	3330	2650		ug/Kg		79	70 - 125	3	30
Benzo[k]fluoranthene	3330	2830		ug/Kg		85	67 - 115	6	30
Benzo[a]pyrene	3330	3020		ug/Kg		91	73 - 123	4	30
Indeno[1,2,3-cd]pyrene	3330	2850		ug/Kg		85	62 - 121	9	30
Dibenz(a,h)anthracene	3330	2900		ug/Kg		87	66 - 119	5	30
Benzo[g,h,i]perylene	3330	2680		ug/Kg		80	61 - 113	7	30
1,4-Dioxane	3330	1360		ug/Kg		41	31 - 81	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	74		11 - 104
Phenol-d5 (Surr)	77		15 - 100
Terphenyl-d14 (Surr)	83		12 - 126
2,4,6-Tribromophenol (Surr)	83		10 - 123
2-Fluorophenol (Surr)	76		10 - 105
2-Fluorobiphenyl	72		14 - 103

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	400	U	4080	2840		ug/Kg	✱	70	63 - 110
2-Methylphenol	400	U	4080	2990		ug/Kg	✱	73	63 - 108
3 & 4 Methylphenol	400	U	4080	2520		ug/Kg	✱	62	61 - 108
Pentachlorophenol	330	U	8160	4490		ug/Kg	✱	55	44 - 126
Naphthalene	400	U	4080	2730		ug/Kg	✱	67	63 - 106
Acenaphthylene	400	U	4080	2740		ug/Kg	✱	67	64 - 108
Acenaphthene	400	U	4080	2410		ug/Kg	✱	59	53 - 110
Dibenzofuran	400	U	4080	2630		ug/Kg	✱	65	65 - 108
Fluorene	400	U	4080	2680		ug/Kg	✱	66	65 - 109
Hexachlorobenzene	40	U	4080	3010		ug/Kg	✱	74	61 - 113
Phenanthrene	400	U	4080	2750		ug/Kg	✱	68	66 - 112
Anthracene	400	U	4080	2770		ug/Kg	✱	68	67 - 114
Fluoranthene	400	U	4080	2720		ug/Kg	✱	67	61 - 106
Pyrene	400	U	4080	2650		ug/Kg	✱	65	61 - 111
Benzo[a]anthracene	40	U	4080	2640	*	ug/Kg	✱	65	67 - 115
Chrysene	400	U *	4080	2760	*	ug/Kg	✱	68	71 - 122
Benzo[b]fluoranthene	40	U	4080	3010		ug/Kg	✱	74	70 - 125
Benzo[k]fluoranthene	40	U	4080	2910		ug/Kg	✱	71	67 - 115
Benzo[a]pyrene	40	U	4080	3250		ug/Kg	✱	80	73 - 123
Indeno[1,2,3-cd]pyrene	40	U	4080	2920		ug/Kg	✱	72	62 - 121
Dibenz(a,h)anthracene	40	U	4080	3150		ug/Kg	✱	77	66 - 119
Benzo[g,h,i]perylene	400	U	4080	2940		ug/Kg	✱	72	61 - 113
1,4-Dioxane	40	U	4080	1120	*	ug/Kg	✱	28	31 - 81

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	65		11 - 104
Phenol-d5 (Surr)	66		15 - 100
Terphenyl-d14 (Surr)	71		12 - 126
2,4,6-Tribromophenol (Surr)	75		10 - 123
2-Fluorophenol (Surr)	68		10 - 105
2-Fluorobiphenyl	65		14 - 103

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenol	400	U	4080	2150	*	ug/Kg	✱	53	63 - 110	27	30
2-Methylphenol	400	U	4080	2230	*	ug/Kg	✱	55	63 - 108	29	30
3 & 4 Methylphenol	400	U	4080	2100	*	ug/Kg	✱	51	61 - 108	18	30
Pentachlorophenol	330	U	8160	3530	*	ug/Kg	✱	43	44 - 126	24	30
Naphthalene	400	U	4080	1700	*	ug/Kg	✱	42	63 - 106	46	30
Acenaphthylene	400	U	4080	2140	*	ug/Kg	✱	53	64 - 108	24	30
Acenaphthene	400	U	4080	1860	*	ug/Kg	✱	46	53 - 110	26	30
Dibenzofuran	400	U	4080	2070	*	ug/Kg	✱	51	65 - 108	24	30
Fluorene	400	U	4080	2110	*	ug/Kg	✱	52	65 - 109	23	30
Hexachlorobenzene	40	U	4080	2440	*	ug/Kg	✱	60	61 - 113	21	30
Phenanthrene	400	U	4080	2270	*	ug/Kg	✱	56	66 - 112	19	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	400	U	4080	2300	*	ug/Kg	⊛	56	67 - 114	18	30
Fluoranthene	400	U	4080	2230	*	ug/Kg	⊛	55	61 - 106	20	30
Pyrene	400	U	4080	2310	*	ug/Kg	⊛	57	61 - 111	14	30
Benzo[a]anthracene	40	U	4080	2230	*	ug/Kg	⊛	55	67 - 115	17	30
Chrysene	400	U *	4080	2210	*	ug/Kg	⊛	54	71 - 122	22	30
Benzo[b]fluoranthene	40	U	4080	2350	*	ug/Kg	⊛	58	70 - 125	25	30
Benzo[k]fluoranthene	40	U	4080	2490	*	ug/Kg	⊛	61	67 - 115	15	30
Benzo[a]pyrene	40	U	4080	2680	*	ug/Kg	⊛	66	73 - 123	19	30
Indeno[1,2,3-cd]pyrene	40	U	4080	2480	*	ug/Kg	⊛	61	62 - 121	17	30
Dibenz(a,h)anthracene	40	U	4080	2560	*	ug/Kg	⊛	63	66 - 119	21	30
Benzo[g,h,i]perylene	400	U	4080	2350	*	ug/Kg	⊛	58	61 - 113	22	30
1,4-Dioxane	40	U	4080	852	*	ug/Kg	⊛	21	31 - 81	27	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
Nitrobenzene-d5 (Surr)	47		11 - 104
Phenol-d5 (Surr)	53		15 - 100
Terphenyl-d14 (Surr)	60		12 - 126
2,4,6-Tribromophenol (Surr)	62		10 - 123
2-Fluorophenol (Surr)	52		10 - 105
2-Fluorobiphenyl	48		14 - 103

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-799834/1-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799834

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Chlordane (technical)	67	U	67	16	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Chlordane (technical)	67	U	67	16	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		09/04/21 13:11	09/07/21 05:02	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-799834/1-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799834

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin	6.7	U	6.7	0.96	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin	6.7	U	6.7	0.96	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Toxaphene	67	U	67	24	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Toxaphene	67	U	67	24	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		09/04/21 13:11	09/07/21 05:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	09/04/21 13:11	09/07/21 05:02	1
DCB Decachlorobiphenyl	86		10 - 150	09/04/21 13:11	09/07/21 05:02	1
Tetrachloro-m-xylene	83		10 - 133	09/04/21 13:11	09/07/21 05:02	1
Tetrachloro-m-xylene	82		10 - 133	09/04/21 13:11	09/07/21 05:02	1

Lab Sample ID: LCS 460-799834/2-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	133	133		ug/Kg		100	70 - 140
4,4'-DDD	133	124		ug/Kg		93	70 - 140
4,4'-DDE	133	134		ug/Kg		100	71 - 137
4,4'-DDE	133	124		ug/Kg		93	71 - 137
4,4'-DDT	133	132		ug/Kg		99	63 - 131
4,4'-DDT	133	123		ug/Kg		92	63 - 131
Aldrin	133	132		ug/Kg		99	74 - 140
Aldrin	133	122		ug/Kg		92	74 - 140
alpha-BHC	133	133		ug/Kg		100	72 - 142
alpha-BHC	133	127		ug/Kg		95	72 - 142
beta-BHC	133	137		ug/Kg		103	65 - 137
beta-BHC	133	132		ug/Kg		99	65 - 137
delta-BHC	133	138		ug/Kg		103	70 - 143
delta-BHC	133	130		ug/Kg		98	70 - 143
Dieldrin	133	132		ug/Kg		99	70 - 135

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-799834/2-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dieldrin	133	121		ug/Kg		91	70 - 135
Endosulfan I	133	130		ug/Kg		97	68 - 135
Endosulfan I	133	118		ug/Kg		89	68 - 135
Endosulfan II	133	131		ug/Kg		98	64 - 130
Endosulfan II	133	120		ug/Kg		90	64 - 130
Endosulfan sulfate	133	133		ug/Kg		100	66 - 143
Endosulfan sulfate	133	121		ug/Kg		91	66 - 143
Endrin	133	134		ug/Kg		101	68 - 136
Endrin	133	122		ug/Kg		92	68 - 136
Endrin aldehyde	133	122		ug/Kg		92	68 - 132
Endrin aldehyde	133	111		ug/Kg		83	68 - 132
Endrin ketone	133	128		ug/Kg		96	60 - 150
Endrin ketone	133	114		ug/Kg		85	60 - 150
gamma-BHC (Lindane)	133	136		ug/Kg		102	70 - 134
gamma-BHC (Lindane)	133	129		ug/Kg		97	70 - 134
Heptachlor	133	129		ug/Kg		97	69 - 134
Heptachlor	133	121		ug/Kg		91	69 - 134
Heptachlor epoxide	133	130		ug/Kg		97	70 - 135
Heptachlor epoxide	133	118		ug/Kg		88	70 - 135
Methoxychlor	133	123		ug/Kg		92	57 - 135
Methoxychlor	133	116		ug/Kg		87	57 - 135
cis-Chlordane	133	131		ug/Kg		98	70 - 136
cis-Chlordane	133	119		ug/Kg		89	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	72		10 - 150
DCB Decachlorobiphenyl	73		10 - 150
Tetrachloro-m-xylene	70		10 - 133
Tetrachloro-m-xylene	73		10 - 133

Lab Sample ID: LCSD 460-799834/3-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	133	134		ug/Kg		100	70 - 140	0	30
4,4'-DDD	133	122		ug/Kg		92	70 - 140	1	30
4,4'-DDE	133	134		ug/Kg		101	71 - 137	0	30
4,4'-DDE	133	122		ug/Kg		92	71 - 137	1	30
4,4'-DDT	133	133		ug/Kg		100	63 - 131	0	30
4,4'-DDT	133	121		ug/Kg		91	63 - 131	1	30
Aldrin	133	132		ug/Kg		99	74 - 140	0	30
Aldrin	133	121		ug/Kg		91	74 - 140	1	30
alpha-BHC	133	133		ug/Kg		100	72 - 142	0	30
alpha-BHC	133	126		ug/Kg		94	72 - 142	1	30
beta-BHC	133	137		ug/Kg		103	65 - 137	0	30
beta-BHC	133	130		ug/Kg		97	65 - 137	1	30
delta-BHC	133	138		ug/Kg		104	70 - 143	0	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-799834/3-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
delta-BHC	133	129		ug/Kg		96	70 - 143	1	30
Dieldrin	133	133		ug/Kg		99	70 - 135	0	30
Dieldrin	133	120		ug/Kg		90	70 - 135	1	30
Endosulfan I	133	130		ug/Kg		97	68 - 135	0	30
Endosulfan I	133	117		ug/Kg		87	68 - 135	1	30
Endosulfan II	133	132		ug/Kg		99	64 - 130	0	30
Endosulfan II	133	119		ug/Kg		89	64 - 130	1	30
Endosulfan sulfate	133	134		ug/Kg		100	66 - 143	0	30
Endosulfan sulfate	133	120		ug/Kg		90	66 - 143	1	30
Endrin	133	134		ug/Kg		101	68 - 136	0	30
Endrin	133	121		ug/Kg		91	68 - 136	1	30
Endrin aldehyde	133	123		ug/Kg		92	68 - 132	1	30
Endrin aldehyde	133	110		ug/Kg		83	68 - 132	1	30
Endrin ketone	133	127		ug/Kg		95	60 - 150	0	30
Endrin ketone	133	112		ug/Kg		84	60 - 150	2	30
gamma-BHC (Lindane)	133	137		ug/Kg		102	70 - 134	0	30
gamma-BHC (Lindane)	133	128		ug/Kg		96	70 - 134	1	30
Heptachlor	133	129		ug/Kg		97	69 - 134	0	30
Heptachlor	133	120		ug/Kg		90	69 - 134	1	30
Heptachlor epoxide	133	130		ug/Kg		97	70 - 135	0	30
Heptachlor epoxide	133	117		ug/Kg		88	70 - 135	1	30
Methoxychlor	133	123		ug/Kg		92	57 - 135	0	30
Methoxychlor	133	114		ug/Kg		86	57 - 135	1	30
cis-Chlordane	133	131		ug/Kg		98	70 - 136	0	30
cis-Chlordane	133	118		ug/Kg		88	70 - 136	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	72		10 - 150
DCB Decachlorobiphenyl	72		10 - 150
Tetrachloro-m-xylene	70		10 - 133
Tetrachloro-m-xylene	73		10 - 133

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	8.2	U	163	211		ug/Kg	✱	129	70 - 140
4,4'-DDD	8.2	U	163	192		ug/Kg	✱	118	70 - 140
4,4'-DDE	8.2	U	163	208		ug/Kg	✱	128	71 - 137
4,4'-DDE	8.2	U	163	189		ug/Kg	✱	116	71 - 137
4,4'-DDT	8.2	U	163	211		ug/Kg	✱	130	63 - 131
4,4'-DDT	8.2	U	163	196		ug/Kg	✱	120	63 - 131
Aldrin	8.2	U	163	187		ug/Kg	✱	114	74 - 140
Aldrin	8.2	U	163	170		ug/Kg	✱	104	74 - 140
alpha-BHC	2.4	U	163	198		ug/Kg	✱	121	72 - 142
alpha-BHC	2.4	U	163	187		ug/Kg	✱	114	72 - 142
beta-BHC	2.4	U	163	211		ug/Kg	✱	130	65 - 137

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799834

Top Data: 10000									
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier			Limits	Limits
beta-BHC	2.4	U	163	198		ug/Kg	☼	121	65 - 137
delta-BHC	2.4	U	163	213		ug/Kg	☼	131	70 - 143
delta-BHC	2.4	U	163	199		ug/Kg	☼	122	70 - 143
Dieldrin	2.4	U	163	206		ug/Kg	☼	126	70 - 135
Dieldrin	2.4	U	163	186		ug/Kg	☼	114	70 - 135
Endosulfan I	8.2	U	163	198		ug/Kg	☼	121	68 - 135
Endosulfan I	8.2	U	163	180		ug/Kg	☼	111	68 - 135
Endosulfan II	8.2	U	163	205		ug/Kg	☼	125	64 - 130
Endosulfan II	8.2	U	163	186		ug/Kg	☼	114	64 - 130
Endosulfan sulfate	8.2	U	163	202		ug/Kg	☼	123	66 - 143
Endosulfan sulfate	8.2	U	163	168		ug/Kg	☼	103	66 - 143
Endrin	8.2	U	163	213		ug/Kg	☼	130	68 - 136
Endrin	8.2	U	163	189		ug/Kg	☼	116	68 - 136
Endrin aldehyde	8.2	U	163	169		ug/Kg	☼	103	68 - 132
Endrin aldehyde	8.2	U	163	153		ug/Kg	☼	94	68 - 132
Endrin ketone	8.2	U	163	192		ug/Kg	☼	118	60 - 150
Endrin ketone	8.2	U	163	174		ug/Kg	☼	106	60 - 150
gamma-BHC (Lindane)	2.4	U	163	205		ug/Kg	☼	126	70 - 134
gamma-BHC (Lindane)	2.4	U	163	193		ug/Kg	☼	118	70 - 134
Heptachlor	8.2	U	163	194		ug/Kg	☼	119	69 - 134
Heptachlor	8.2	U	163	180		ug/Kg	☼	111	69 - 134
Heptachlor epoxide	8.2	U	163	200		ug/Kg	☼	122	70 - 135
Heptachlor epoxide	8.2	U	163	181		ug/Kg	☼	111	70 - 135
Methoxychlor	8.2	U	163	195		ug/Kg	☼	120	57 - 135
Methoxychlor	8.2	U	163	183		ug/Kg	☼	112	57 - 135
cis-Chlordane	8.2	U	163	203		ug/Kg	☼	124	70 - 136
cis-Chlordane	8.2	U	163	181		ug/Kg	☼	111	70 - 136
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
DCB Decachlorobiphenyl	90		10 - 150						
DCB Decachlorobiphenyl	93		10 - 150						
Tetrachloro-m-xylene	71		10 - 133						
Tetrachloro-m-xylene	76		10 - 133						

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	8.2	U	163	233	*	ug/Kg	✱	143	70 - 140	10	30
4,4'-DDD	8.2	U	163	215		ug/Kg	✱	132	70 - 140	11	30
4,4'-DDE	8.2	U	163	230	*	ug/Kg	✱	141	71 - 137	10	30
4,4'-DDE	8.2	U	163	211		ug/Kg	✱	129	71 - 137	11	30
4,4'-DDT	8.2	U	163	233	*	ug/Kg	✱	143	63 - 131	10	30
4,4'-DDT	8.2	U	163	219	*	ug/Kg	✱	134	63 - 131	11	30
Aldrin	8.2	U	163	208		ug/Kg	✱	128	74 - 140	11	30
Aldrin	8.2	U	163	192		ug/Kg	✱	118	74 - 140	12	30
alpha-BHC	2.4	U	163	219		ug/Kg	✱	134	72 - 142	10	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
alpha-BHC	2.4	U	163	207		ug/Kg	✱	127	72 - 142	10	30
beta-BHC	2.4	U	163	234	*	ug/Kg	✱	143	65 - 137	10	30
beta-BHC	2.4	U	163	211		ug/Kg	✱	129	65 - 137	6	30
delta-BHC	2.4	U	163	237	*	ug/Kg	✱	145	70 - 143	10	30
delta-BHC	2.4	U	163	222		ug/Kg	✱	136	70 - 143	11	30
Dieldrin	2.4	U	163	228	*	ug/Kg	✱	140	70 - 135	10	30
Dieldrin	2.4	U	163	208		ug/Kg	✱	128	70 - 135	11	30
Endosulfan I	8.2	U	163	220		ug/Kg	✱	135	68 - 135	10	30
Endosulfan I	8.2	U	163	201		ug/Kg	✱	123	68 - 135	11	30
Endosulfan II	8.2	U	163	225	*	ug/Kg	✱	138	64 - 130	9	30
Endosulfan II	8.2	U	163	207		ug/Kg	✱	127	64 - 130	11	30
Endosulfan sulfate	8.2	U	163	223		ug/Kg	✱	136	66 - 143	10	30
Endosulfan sulfate	8.2	U	163	186		ug/Kg	✱	114	66 - 143	10	30
Endrin	8.2	U	163	235	*	ug/Kg	✱	144	68 - 136	10	30
Endrin	8.2	U	163	211		ug/Kg	✱	129	68 - 136	11	30
Endrin aldehyde	8.2	U	163	187		ug/Kg	✱	114	68 - 132	10	30
Endrin aldehyde	8.2	U	163	172		ug/Kg	✱	105	68 - 132	12	30
Endrin ketone	8.2	U	163	210		ug/Kg	✱	129	60 - 150	9	30
Endrin ketone	8.2	U	163	195		ug/Kg	✱	119	60 - 150	12	30
gamma-BHC (Lindane)	2.4	U	163	228	*	ug/Kg	✱	140	70 - 134	11	30
gamma-BHC (Lindane)	2.4	U	163	211		ug/Kg	✱	129	70 - 134	9	30
Heptachlor	8.2	U	163	215		ug/Kg	✱	132	69 - 134	10	30
Heptachlor	8.2	U	163	201		ug/Kg	✱	123	69 - 134	11	30
Heptachlor epoxide	8.2	U	163	221	*	ug/Kg	✱	136	70 - 135	10	30
Heptachlor epoxide	8.2	U	163	202		ug/Kg	✱	124	70 - 135	11	30
Methoxychlor	8.2	U	163	215		ug/Kg	✱	132	57 - 135	10	30
Methoxychlor	8.2	U	163	204		ug/Kg	✱	125	57 - 135	11	30
cis-Chlordane	8.2	U	163	225	*	ug/Kg	✱	138	70 - 136	10	30
cis-Chlordane	8.2	U	163	203		ug/Kg	✱	124	70 - 136	11	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	100		10 - 150
DCB Decachlorobiphenyl	103		10 - 150
Tetrachloro-m-xylene	81		10 - 133
Tetrachloro-m-xylene	81		10 - 133

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-799833/1-A

Matrix: Solid

Analysis Batch: 799904

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1016	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1221	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1221	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1232	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1232	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-799833/1-A
Matrix: Solid
Analysis Batch: 799904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 799833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1242	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1242	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1248	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1248	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1254	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1254	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1260	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1260	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor-1262	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor-1262	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1268	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1268	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	105		37 - 150	09/04/21 13:08	09/05/21 13:10	1
DCB Decachlorobiphenyl	107		37 - 150	09/04/21 13:08	09/05/21 13:10	1
Tetrachloro-m-xylene	104		54 - 150	09/04/21 13:08	09/05/21 13:10	1
Tetrachloro-m-xylene	97		54 - 150	09/04/21 13:08	09/05/21 13:10	1

Lab Sample ID: LCS 460-799833/2-A
Matrix: Solid
Analysis Batch: 799904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 799833

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aroclor 1016	333	428		ug/Kg		128	65 - 133
Aroclor 1016	333	436		ug/Kg		131	65 - 133
Aroclor 1260	333	445		ug/Kg		134	71 - 150
Aroclor 1260	333	463		ug/Kg		139	71 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	102		37 - 150
DCB Decachlorobiphenyl	106		37 - 150
Tetrachloro-m-xylene	101		54 - 150
Tetrachloro-m-xylene	100		54 - 150

Lab Sample ID: LCSD 460-799833/3-A
Matrix: Solid
Analysis Batch: 799904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 799833

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Aroclor 1016	333	425		ug/Kg		128	65 - 133	1	30
Aroclor 1016	333	431		ug/Kg		129	65 - 133	1	30
Aroclor 1260	333	437		ug/Kg		131	71 - 150	2	30
Aroclor 1260	333	455		ug/Kg		137	71 - 150	2	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-799833/3-A
Matrix: Solid
Analysis Batch: 799904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 799833

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	102		37 - 150
DCB Decachlorobiphenyl	105		37 - 150
Tetrachloro-m-xylene	101		54 - 150
Tetrachloro-m-xylene	98		54 - 150

Lab Sample ID: 460-242115-11 MS
Matrix: Solid
Analysis Batch: 799904

Client Sample ID: 080_LB-44_8-10
Prep Type: Total/NA
Prep Batch: 799833

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	82	U	408	679	*	ug/Kg	⊛	166	65 - 133
Aroclor 1016	82	U	408	709	*	ug/Kg	⊛	174	65 - 133
Aroclor 1260	82	U	408	709	*	ug/Kg	⊛	174	71 - 150
Aroclor 1260	82	U	408	736	*	ug/Kg	⊛	180	71 - 150

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	135		37 - 150
DCB Decachlorobiphenyl	138		37 - 150
Tetrachloro-m-xylene	118		54 - 150
Tetrachloro-m-xylene	119		54 - 150

Lab Sample ID: 460-242115-11 MSD
Matrix: Solid
Analysis Batch: 799904

Client Sample ID: 080_LB-44_8-10
Prep Type: Total/NA
Prep Batch: 799833

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Aroclor 1016	82	U	408	752	*	ug/Kg	⊛	184	65 - 133	10	30
Aroclor 1016	82	U	408	767	*	ug/Kg	⊛	188	65 - 133	8	30
Aroclor 1260	82	U	408	786	*	ug/Kg	⊛	193	71 - 150	10	30
Aroclor 1260	82	U	408	799	*	ug/Kg	⊛	196	71 - 150	8	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	142		37 - 150
DCB Decachlorobiphenyl	143		37 - 150
Tetrachloro-m-xylene	118		54 - 150
Tetrachloro-m-xylene	118		54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-800298/1-A
Matrix: Solid
Analysis Batch: 800372

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 800298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/08/21 20:14	09/09/21 07:58	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/08/21 20:14	09/09/21 07:58	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 460-800298/1-A

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800298

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
2,4-Dichlorophenylacetic acid	84		65 - 150	09/08/21 20:14	09/09/21 07:58	1				
2,4-Dichlorophenylacetic acid	108		65 - 150	09/08/21 20:14	09/09/21 07:58	1				

Lab Sample ID: LCS 460-800298/2-A

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800298

			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silvex (2,4,5-TP)			8.33	11.1	J	ug/Kg		134	58 - 150	
Silvex (2,4,5-TP)			8.33	10.4	J	ug/Kg		124	58 - 150	
Surrogate	%Recovery	Qualifier	Limits							
2,4-Dichlorophenylacetic acid	105		65 - 150							
2,4-Dichlorophenylacetic acid	127		65 - 150							

Lab Sample ID: LCSD 460-800298/3-A

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 800298

			Spike	LCSD	LCSD				%Rec	RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	Limit
Silvex (2,4,5-TP)			8.33	11.0	J	ug/Kg		132	58 - 150	6 30
Silvex (2,4,5-TP)			8.33	11.1	J	ug/Kg		133	58 - 150	0 30
Surrogate	%Recovery	Qualifier	Limits							
2,4-Dichlorophenylacetic acid	93		65 - 150							
2,4-Dichlorophenylacetic acid	117		65 - 150							

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 800298

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silvex (2,4,5-TP)	41	U	10.2	17.7	J *	ug/Kg	⊛	173	58 - 150	
Silvex (2,4,5-TP)	41	U	10.2	13.3	J	ug/Kg	⊛	130	58 - 150	
Surrogate	%Recovery	Qualifier	Limits							
2,4-Dichlorophenylacetic acid	101		65 - 150							
2,4-Dichlorophenylacetic acid	119		65 - 150							

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 800298

	Sample	Sample	Spike	MSD	MSD				%Rec	RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	Limit
Silvex (2,4,5-TP)	41	U	10.2	13.4	J	ug/Kg	⊛	131	58 - 150	28 30
Silvex (2,4,5-TP)	41	U	10.2	13.0	J	ug/Kg	⊛	128	58 - 150	2 30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 800298

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	105		65 - 150
2,4-Dichlorophenylacetic acid	126		65 - 150

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-168302/1-B

Matrix: Solid

Analysis Batch: 170021

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		09/07/21 06:47	09/10/21 12:51	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		09/07/21 06:47	09/10/21 12:51	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	157		10 - 178	09/07/21 06:47	09/10/21 12:51	1
M2-6:2 FTS	132		10 - 182	09/07/21 06:47	09/10/21 12:51	1
13C5 PFHxA	105		11 - 138	09/07/21 06:47	09/10/21 12:51	1
13C4 PFHpA	99		15 - 139	09/07/21 06:47	09/10/21 12:51	1
13C8 PFOA	107		21 - 133	09/07/21 06:47	09/10/21 12:51	1
13C9 PFNA	107		15 - 145	09/07/21 06:47	09/10/21 12:51	1
13C6 PFDA	110		21 - 134	09/07/21 06:47	09/10/21 12:51	1
13C7 PFUnA	118		15 - 138	09/07/21 06:47	09/10/21 12:51	1
13C2-PFDoDA	112		28 - 126	09/07/21 06:47	09/10/21 12:51	1
13C2 PFTeDA	93		10 - 138	09/07/21 06:47	09/10/21 12:51	1
13C3 PFBS	117		23 - 130	09/07/21 06:47	09/10/21 12:51	1
13C3 PFHxS	105		24 - 136	09/07/21 06:47	09/10/21 12:51	1
13C8 PFOS	106		31 - 130	09/07/21 06:47	09/10/21 12:51	1
d3-NMeFOSAA	106		10 - 172	09/07/21 06:47	09/10/21 12:51	1
d5-NEtFOSAA	138		10 - 176	09/07/21 06:47	09/10/21 12:51	1
13C8 FOSA	73		25 - 135	09/07/21 06:47	09/10/21 12:51	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-168302/1-B

Matrix: Solid

Analysis Batch: 170021

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168302

Isotope Dilution	MB MB %Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	94	12 - 137	09/07/21 06:47	09/10/21 12:51	1
13C5 PFPeA	98	12 - 135	09/07/21 06:47	09/10/21 12:51	1

Lab Sample ID: LCS 410-168302/2-B

Matrix: Solid

Analysis Batch: 170021

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168302

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.0	24.16		ug/Kg		97	61 - 147
Perfluoroheptanoic acid	25.0	25.75		ug/Kg		103	61 - 151
Perfluorooctanoic acid	25.0	22.53		ug/Kg		90	62 - 144
Perfluorononanoic acid	25.0	24.50		ug/Kg		98	62 - 148
Perfluorodecanoic acid	25.0	21.49		ug/Kg		86	62 - 142
Perfluorotridecanoic acid	25.0	26.03		ug/Kg		104	57 - 152
Perfluorotetradecanoic acid	25.0	26.13		ug/Kg		105	60 - 147
Perfluorobutanesulfonic acid	22.1	17.63		ug/Kg		80	62 - 137
Perfluorohexanesulfonic acid	22.8	19.75		ug/Kg		87	57 - 135
Perfluorooctanesulfonic acid	23.1	19.32		ug/Kg		83	48 - 134
NEtFOSAA	25.0	22.87		ug/Kg		91	50 - 140
NMeFOSAA	25.0	21.69		ug/Kg		87	53 - 149
Perfluoroheptanesulfonic acid	23.8	20.57		ug/Kg		86	67 - 138
Perfluorodecanesulfonic acid	24.1	19.52		ug/Kg		81	60 - 142
Perfluorooctanesulfonamide	25.0	22.97		ug/Kg		92	52 - 132
Perfluorobutanoic acid	25.0	23.03		ug/Kg		92	50 - 185
Perfluoroundecanoic acid	25.0	24.73		ug/Kg		99	62 - 144
Perfluorododecanoic acid	25.0	23.12		ug/Kg		92	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	20.97		ug/Kg		88	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	21.60		ug/Kg		90	50 - 147
Perfluoropentanoic acid	25.0	25.64		ug/Kg		103	69 - 144

Isotope Dilution	LCS LCS %Recovery Qualifier	Limits
M2-8:2 FTS	124	10 - 178
M2-6:2 FTS	119	10 - 182
13C5 PFHxA	108	11 - 138
13C4 PFHpA	108	15 - 139
13C8 PFOA	110	21 - 133
13C9 PFNA	104	15 - 145
13C6 PFDA	105	21 - 134
13C7 PFUnA	107	15 - 138
13C2-PFDoDA	114	28 - 126
13C2 PFTeDA	118	10 - 138
13C3 PFBS	121	23 - 130
13C3 PFHxS	109	24 - 136
13C8 PFOS	112	31 - 130
d3-NMeFOSAA	98	10 - 172
d5-NEtFOSAA	109	10 - 176
13C8 FOSA	86	25 - 135
13C4 PFBA	103	12 - 137
13C5 PFPeA	105	12 - 135

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 170021

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 168302

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	0.67	U	27.8	27.16		ug/Kg	✱	98	61 - 147
Perfluoroheptanoic acid	0.67	U	27.8	29.14		ug/Kg	✱	105	61 - 151
Perfluorooctanoic acid	0.67	U	27.8	25.76		ug/Kg	✱	93	62 - 144
Perfluorononanoic acid	0.67	U	27.8	28.05		ug/Kg	✱	101	62 - 148
Perfluorodecanoic acid	0.67	U	27.8	24.53		ug/Kg	✱	88	62 - 142
Perfluorotridecanoic acid	0.67	U	27.8	28.72		ug/Kg	✱	103	57 - 152
Perfluorotetradecanoic acid	0.67	U	27.8	30.96		ug/Kg	✱	111	60 - 147
Perfluorobutanesulfonic acid	2.25	U	24.6	20.67		ug/Kg	✱	84	62 - 137
Perfluorohexanesulfonic acid	0.67	U	25.4	21.53		ug/Kg	✱	85	57 - 135
Perfluorooctanesulfonic acid	0.44	J	25.7	23.75		ug/Kg	✱	91	48 - 134
NEtFOSAA	2.25	U	27.8	25.67		ug/Kg	✱	92	50 - 140
NMeFOSAA	2.25	U	27.8	26.82		ug/Kg	✱	96	53 - 149
Perfluoroheptanesulfonic acid	0.67	U	26.5	22.18		ug/Kg	✱	84	67 - 138
Perfluorodecanesulfonic acid	0.67	U	26.8	23.45		ug/Kg	✱	87	60 - 142
Perfluorooctanesulfonamide	0.67	U	27.8	28.30		ug/Kg	✱	102	52 - 132
Perfluorobutanoic acid	2.25	U	27.8	25.43		ug/Kg	✱	91	50 - 185
Perfluoroundecanoic acid	0.67	U	27.8	27.00		ug/Kg	✱	97	62 - 144
Perfluorododecanoic acid	0.67	U	27.8	29.03		ug/Kg	✱	104	60 - 147
6:2 Fluorotelomer sulfonic acid	2.25	U	26.4	24.40		ug/Kg	✱	93	53 - 137
8:2 Fluorotelomer sulfonic acid	3.37	U	26.6	27.94		ug/Kg	✱	105	50 - 147
Perfluoropentanoic acid	0.67	U	27.8	28.29		ug/Kg	✱	102	69 - 144

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
M2-8:2 FTS	110		10 - 178
M2-6:2 FTS	113		10 - 182
13C5 PFHxA	110		11 - 138
13C4 PFHpA	108		15 - 139
13C8 PFOA	109		21 - 133
13C9 PFNA	108		15 - 145
13C6 PFDA	111		21 - 134
13C7 PFUnA	111		15 - 138
13C2-PFDoDA	110		28 - 126
13C2 PFTeDA	110		10 - 138
13C3 PFBS	119		23 - 130
13C3 PFHxS	113		24 - 136
13C8 PFOS	108		31 - 130
d3-NMeFOSAA	99		10 - 172
d5-NEtFOSAA	108		10 - 176
13C8 FOSA	103		25 - 135
13C4 PFBA	102		12 - 137
13C5 PFPeA	106		12 - 135

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 170021

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 168302

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Perfluorohexanoic acid	0.67	U	30.3	28.36		ug/Kg	✱	94	61 - 147	4	30
Perfluoroheptanoic acid	0.67	U	30.3	32.94		ug/Kg	✱	109	61 - 151	12	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 170021

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 168302

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanoic acid	0.67	U	30.3	27.58		ug/Kg	✱	91	62 - 144	7	30
Perfluorononanoic acid	0.67	U	30.3	30.10		ug/Kg	✱	99	62 - 148	7	30
Perfluorodecanoic acid	0.67	U	30.3	26.18		ug/Kg	✱	86	62 - 142	7	30
Perfluorotridecanoic acid	0.67	U	30.3	31.26		ug/Kg	✱	103	57 - 152	8	30
Perfluorotetradecanoic acid	0.67	U	30.3	33.33		ug/Kg	✱	110	60 - 147	7	30
Perfluorobutanesulfonic acid	2.25	U	26.8	22.41		ug/Kg	✱	84	62 - 137	8	30
Perfluorohexanesulfonic acid	0.67	U	27.6	24.33		ug/Kg	✱	88	57 - 135	12	30
Perfluorooctanesulfonic acid	0.44	J	28.0	25.22		ug/Kg	✱	88	48 - 134	6	30
NEtFOSAA	2.25	U	30.3	27.06		ug/Kg	✱	89	50 - 140	5	30
NMeFOSAA	2.25	U	30.3	28.95		ug/Kg	✱	96	53 - 149	8	30
Perfluoroheptanesulfonic acid	0.67	U	28.8	24.39		ug/Kg	✱	85	67 - 138	9	30
Perfluorodecanesulfonic acid	0.67	U	29.2	25.38		ug/Kg	✱	87	60 - 142	8	30
Perfluorooctanesulfonamide	0.67	U	30.3	28.89		ug/Kg	✱	95	52 - 132	2	30
Perfluorobutanoic acid	2.25	U	30.3	27.86		ug/Kg	✱	92	50 - 185	9	30
Perfluoroundecanoic acid	0.67	U	30.3	30.95		ug/Kg	✱	102	62 - 144	14	30
Perfluorododecanoic acid	0.67	U	30.3	29.86		ug/Kg	✱	99	60 - 147	3	30
6:2 Fluorotelomer sulfonic acid	2.25	U	28.7	25.48		ug/Kg	✱	89	53 - 137	4	30
8:2 Fluorotelomer sulfonic acid	3.37	U	29.0	27.09		ug/Kg	✱	93	50 - 147	3	30
Perfluoropentanoic acid	0.67	U	30.3	31.30		ug/Kg	✱	103	69 - 144	10	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
M2-8:2 FTS	122		10 - 178
M2-6:2 FTS	119		10 - 182
13C5 PFHxA	115		11 - 138
13C4 PFHpA	110		15 - 139
13C8 PFOA	114		21 - 133
13C9 PFNA	103		15 - 145
13C6 PFDA	115		21 - 134
13C7 PFUnA	109		15 - 138
13C2-PFDoDA	104		28 - 126
13C2 PFTeDA	104		10 - 138
13C3 PFBS	118		23 - 130
13C3 PFHxS	114		24 - 136
13C8 PFOS	109		31 - 130
d3-NMeFOSAA	93		10 - 172
d5-NEtFOSAA	101		10 - 176
13C8 FOSA	107		25 - 135
13C4 PFBA	105		12 - 137
13C5 PFPeA	105		12 - 135

Lab Sample ID: MB 410-168919/1-A

Matrix: Water

Analysis Batch: 169745

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168919

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluoroheptanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorooctanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorononanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-168919/1-A

Matrix: Water

Analysis Batch: 169745

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168919

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorotridecanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorotetradecanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorohexanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorooctanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
NEtFOSAA	3.00	U	3.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
NMeFOSAA	2.00	U	2.00	0.60	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluoroheptanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorodecanesulfonic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorooctanesulfonamide	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorobutanoic acid	5.00	U	5.00	2.00	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluoroundecanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluorododecanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1
6:2 Fluorotelomer sulfonic acid	5.00	U	5.00	2.00	ng/L		09/08/21 09:14	09/10/21 01:59	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	1.00	ng/L		09/08/21 09:14	09/10/21 01:59	1
Perfluoropentanoic acid	2.00	U	2.00	0.50	ng/L		09/08/21 09:14	09/10/21 01:59	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	106		34 - 182	09/08/21 09:14	09/10/21 01:59	1
M2-6:2 FTS	112		29 - 189	09/08/21 09:14	09/10/21 01:59	1
13C5 PFHxA	97		31 - 142	09/08/21 09:14	09/10/21 01:59	1
13C4 PFHpA	101		30 - 144	09/08/21 09:14	09/10/21 01:59	1
13C8 PFOA	102		49 - 127	09/08/21 09:14	09/10/21 01:59	1
13C9 PFNA	100		47 - 136	09/08/21 09:14	09/10/21 01:59	1
13C6 PFDA	98		47 - 128	09/08/21 09:14	09/10/21 01:59	1
13C7 PFUnA	97		40 - 135	09/08/21 09:14	09/10/21 01:59	1
13C2-PFDoDA	85		28 - 136	09/08/21 09:14	09/10/21 01:59	1
13C2 PFTeDA	94		10 - 144	09/08/21 09:14	09/10/21 01:59	1
13C3 PFBS	114		19 - 178	09/08/21 09:14	09/10/21 01:59	1
13C3 PFHxS	105		32 - 145	09/08/21 09:14	09/10/21 01:59	1
13C8 PFOS	99		49 - 126	09/08/21 09:14	09/10/21 01:59	1
d3-NMeFOSAA	92		32 - 151	09/08/21 09:14	09/10/21 01:59	1
d5-NEtFOSAA	96		37 - 164	09/08/21 09:14	09/10/21 01:59	1
13C8 FOSA	83		10 - 143	09/08/21 09:14	09/10/21 01:59	1
13C4 PFBA	95		41 - 132	09/08/21 09:14	09/10/21 01:59	1
13C5 PFPeA	102		33 - 155	09/08/21 09:14	09/10/21 01:59	1

Lab Sample ID: LCS 410-168919/2-A

Matrix: Water

Analysis Batch: 169745

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168919

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.6	26.74		ng/L		104	66 - 137
Perfluoroheptanoic acid	25.6	31.82		ng/L		124	66 - 141
Perfluorooctanoic acid	25.6	29.23		ng/L		114	65 - 136
Perfluorononanoic acid	25.6	30.55		ng/L		119	65 - 140
Perfluorodecanoic acid	25.6	32.69		ng/L		128	63 - 137
Perfluorotridecanoic acid	25.6	32.59		ng/L		127	58 - 146

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-168919/2-A

Matrix: Water

Analysis Batch: 169745

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168919

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid	25.6	31.05		ng/L		121	64 - 141
Perfluorobutanesulfonic acid	22.7	21.65		ng/L		96	65 - 132
Perfluorohexanesulfonic acid	23.3	26.07		ng/L		112	60 - 128
Perfluorooctanesulfonic acid	23.7	28.70		ng/L		121	51 - 126
NEtFOSAA	25.6	32.43		ng/L		127	54 - 134
NMeFOSAA	25.6	30.04		ng/L		117	58 - 143
Perfluoroheptanesulfonic acid	24.4	27.46		ng/L		113	67 - 135
Perfluorodecanesulfonic acid	24.7	25.32		ng/L		103	61 - 134
Perfluorooctanesulfonamide	25.6	28.41		ng/L		111	55 - 130
Perfluorobutanoic acid	25.6	26.87		ng/L		105	62 - 156
Perfluoroundecanoic acid	25.6	34.35		ng/L		134	62 - 138
Perfluorododecanoic acid	25.6	32.46		ng/L		127	63 - 140
6:2 Fluorotelomer sulfonic acid	24.3	26.50		ng/L		109	57 - 137
8:2 Fluorotelomer sulfonic acid	24.5	30.21		ng/L		123	56 - 140
Perfluoropentanoic acid	25.6	28.77		ng/L		112	72 - 139

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-8:2 FTS	96		34 - 182
M2-6:2 FTS	103		29 - 189
13C5 PFHxA	96		31 - 142
13C4 PFHpA	95		30 - 144
13C8 PFOA	101		49 - 127
13C9 PFNA	95		47 - 136
13C6 PFDA	94		47 - 128
13C7 PFUnA	97		40 - 135
13C2-PFDoDA	88		28 - 136
13C2 PFTeDA	99		10 - 144
13C3 PFBS	115		19 - 178
13C3 PFHxS	93		32 - 145
13C8 PFOS	93		49 - 126
d3-NMeFOSAA	98		32 - 151
d5-NEtFOSAA	95		37 - 164
13C8 FOSA	86		10 - 143
13C4 PFBA	96		41 - 132
13C5 PFPeA	95		33 - 155

Lab Sample ID: 410-53506-A-14-B MS

Matrix: Water

Analysis Batch: 169745

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168919

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	1.15	J	22.4	24.44		ng/L		104	66 - 137
Perfluoroheptanoic acid	2.78		22.4	30.30		ng/L		123	66 - 141
Perfluorooctanoic acid	40.0		22.4	62.03		ng/L		99	65 - 136
Perfluorononanoic acid	1.62	U	22.4	27.19		ng/L		122	65 - 140
Perfluorodecanoic acid	1.62	U	22.4	28.01		ng/L		125	63 - 137
Perfluorotridecanoic acid	1.62	U	22.4	26.34		ng/L		118	58 - 146
Perfluorotetradecanoic acid	1.62	U	22.4	27.75		ng/L		124	64 - 141
Perfluorobutanesulfonic acid	0.70	J	19.8	20.69		ng/L		101	65 - 132

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 410-53506-A-14-B MS

Matrix: Water

Analysis Batch: 169745

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168919

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanesulfonic acid	1.62	U	20.4	23.33		ng/L		114	60 - 128
Perfluorooctanesulfonic acid	0.67	J	20.7	24.63		ng/L		116	51 - 126
NEtFOSAA	2.44	U	22.4	24.33		ng/L		109	54 - 134
NMeFOSAA	1.62	U	22.4	26.01		ng/L		116	58 - 143
Perfluoroheptanesulfonic acid	1.62	U	21.3	22.45		ng/L		105	67 - 135
Perfluorodecanesulfonic acid	1.62	U	21.6	23.11		ng/L		107	61 - 134
Perfluorooctanesulfonamide	1.62	U	22.4	25.44		ng/L		114	55 - 130
Perfluorobutanoic acid	4.06	U	22.4	23.99		ng/L		107	62 - 156
Perfluoroundecanoic acid	1.62	U	22.4	26.67		ng/L		119	62 - 138
Perfluorododecanoic acid	1.62	U	22.4	26.65		ng/L		119	63 - 140
6:2 Fluorotelomer sulfonic acid	4.06	U	21.2	22.47		ng/L		106	57 - 137
8:2 Fluorotelomer sulfonic acid	2.44	U	21.4	25.16		ng/L		117	56 - 140
Perfluoropentanoic acid	0.50	J	22.4	24.21		ng/L		106	72 - 139

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
M2-8:2 FTS	107		34 - 182
M2-6:2 FTS	120		29 - 189
13C5 PFHxA	107		31 - 142
13C4 PFHpA	106		30 - 144
13C8 PFOA	114		49 - 127
13C9 PFNA	106		47 - 136
13C6 PFDA	102		47 - 128
13C7 PFUnA	104		40 - 135
13C2-PFDoDA	97		28 - 136
13C2 PFTeDA	98		10 - 144
13C3 PFBS	130		19 - 178
13C3 PFHxS	108		32 - 145
13C8 PFOS	107		49 - 126
d3-NMeFOSAA	97		32 - 151
d5-NEtFOSAA	109		37 - 164
13C8 FOSA	85		10 - 143
13C4 PFBA	102		41 - 132
13C5 PFPeA	109		33 - 155

Lab Sample ID: 410-53506-A-14-C MSD

Matrix: Water

Analysis Batch: 169745

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168919

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Perfluorohexanoic acid	1.15	J	22.4	25.04		ng/L		107	66 - 137	2	30
Perfluoroheptanoic acid	2.78		22.4	30.66		ng/L		125	66 - 141	1	30
Perfluorooctanoic acid	40.0		22.4	69.27		ng/L		131	65 - 136	11	30
Perfluorononanoic acid	1.62	U	22.4	28.21		ng/L		126	65 - 140	4	30
Perfluorodecanoic acid	1.62	U	22.4	27.53		ng/L		123	63 - 137	2	30
Perfluorotridecanoic acid	1.62	U	22.4	29.24		ng/L		131	58 - 146	10	30
Perfluorotetradecanoic acid	1.62	U	22.4	28.67		ng/L		128	64 - 141	3	30
Perfluorobutanesulfonic acid	0.70	J	19.8	20.80		ng/L		101	65 - 132	1	30
Perfluorohexanesulfonic acid	1.62	U	20.4	23.77		ng/L		116	60 - 128	2	30
Perfluorooctanesulfonic acid	0.67	J	20.7	26.20		ng/L		123	51 - 126	6	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 410-53506-A-14-C MSD

Matrix: Water

Analysis Batch: 169745

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168919

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
NEtFOSAA	2.44	U	22.4	25.13		ng/L		112	54 - 134	3	30
NMeFOSAA	1.62	U	22.4	26.30		ng/L		117	58 - 143	1	30
Perfluoroheptanesulfonic acid	1.62	U	21.3	23.30		ng/L		109	67 - 135	4	30
Perfluorodecanesulfonic acid	1.62	U	21.6	23.34		ng/L		108	61 - 134	1	30
Perfluorooctanesulfonamide	1.62	U	22.4	26.36		ng/L		118	55 - 130	4	30
Perfluorobutanoic acid	4.06	U	22.4	24.67		ng/L		110	62 - 156	3	30
Perfluoroundecanoic acid	1.62	U	22.4	26.43		ng/L		118	62 - 138	1	30
Perfluorododecanoic acid	1.62	U	22.4	28.40		ng/L		127	63 - 140	6	30
6:2 Fluorotelomer sulfonic acid	4.06	U	21.2	25.84		ng/L		122	57 - 137	14	30
8:2 Fluorotelomer sulfonic acid	2.44	U	21.5	25.35		ng/L		118	56 - 140	1	30
Perfluoropentanoic acid	0.50	J	22.4	24.60		ng/L		108	72 - 139	2	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
M2-8:2 FTS	103		34 - 182
M2-6:2 FTS	103		29 - 189
13C5 PFHxA	103		31 - 142
13C4 PFHpA	102		30 - 144
13C8 PFOA	103		49 - 127
13C9 PFNA	96		47 - 136
13C6 PFDA	98		47 - 128
13C7 PFUnA	103		40 - 135
13C2-PFDoDA	95		28 - 136
13C2 PFTeDA	95		10 - 144
13C3 PFBS	113		19 - 178
13C3 PFHxS	106		32 - 145
13C8 PFOS	97		49 - 126
d3-NMeFOSAA	96		32 - 151
d5-NEtFOSAA	105		37 - 164
13C8 FOSA	89		10 - 143
13C4 PFBA	94		41 - 132
13C5 PFPeA	101		33 - 155

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-800347/1-A

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.089	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Barium	2.0	U	2.0	0.15	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Chromium	2.0	U	2.0	0.17	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Copper	2.0	U	2.0	0.22	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Manganese	4.0	U	4.0	0.40	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Nickel	2.0	U	2.0	0.19	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Lead	0.60	U	0.60	0.20	mg/Kg		09/09/21 04:11	09/09/21 09:41	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-800347/1-A

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	1.3	U	1.3	0.12	mg/Kg		09/09/21 04:11	09/09/21 09:41	1
Zinc	8.0	U	8.0	2.3	mg/Kg		09/09/21 04:11	09/09/21 09:41	1

Lab Sample ID: LCSSRM 460-800347/2-A ^5

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800347

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Silver	33.6	20.40		mg/Kg		60.7	48.2 - 73.5
Arsenic	140	148.3		mg/Kg		105.9	82.9 - 117.9
Barium	202	219.5		mg/Kg		108.7	81.2 - 118.3
Beryllium	42.6	43.60		mg/Kg		102.4	81.0 - 119.0
Cadmium	97.9	104.1		mg/Kg		106.4	80.0 - 119.5
Chromium	60.4	63.34		mg/Kg		104.9	80.3 - 119.7
Copper	122	125.0		mg/Kg		102.5	82.8 - 117.2
Manganese	457	470.6		mg/Kg		103.0	79.6 - 120.6
Nickel	151	164.2		mg/Kg		108.7	79.5 - 121.2
Lead	56.7	59.32		mg/Kg		104.6	82.9 - 116.9
Selenium	35.5	38.42		mg/Kg		108.2	77.5 - 122.3
Zinc	186	192.6		mg/Kg		103.5	79.0 - 121.0

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 800347

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	1.2	U	6.12	5.93		mg/Kg	✱	97	75 - 125
Arsenic	1.5		12.2	13.07		mg/Kg	✱	94	75 - 125
Barium	26.3		12.2	39.27		mg/Kg	✱	106	75 - 125
Beryllium	0.34	J	6.12	6.01		mg/Kg	✱	93	75 - 125
Cadmium	1.2	U	6.12	5.97		mg/Kg	✱	98	75 - 125
Chromium	10.9		12.2	23.01		mg/Kg	✱	99	75 - 125
Copper	6.1		12.2	18.15		mg/Kg	✱	99	75 - 125
Manganese	131		61.2	186.4		mg/Kg	✱	90	75 - 125
Nickel	10.8		12.2	23.29		mg/Kg	✱	102	75 - 125
Lead	5.3		6.12	11.90		mg/Kg	✱	108	75 - 125
Selenium	1.5	U	12.2	11.68		mg/Kg	✱	95	75 - 125
Zinc	28.8		61.2	89.31		mg/Kg	✱	99	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-242115-11 DU

Matrix: Solid

Analysis Batch: 800413

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 800347

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Silver	1.2	U	1.2	U	mg/Kg	✱	NC	20
Arsenic	1.5		1.54		mg/Kg	✱	1	20
Barium	26.3		26.60		mg/Kg	✱	1	20
Beryllium	0.34	J	0.314	J	mg/Kg	✱	7	20
Cadmium	1.2	U	1.2	U	mg/Kg	✱	NC	20
Chromium	10.9		11.04		mg/Kg	✱	1	20
Copper	6.1		6.10		mg/Kg	✱	0.3	20
Manganese	131		128.4		mg/Kg	✱	2	20
Nickel	10.8		10.83		mg/Kg	✱	0.6	20
Lead	5.3		5.75		mg/Kg	✱	8	20
Selenium	1.5	U	1.5	U	mg/Kg	✱	NC	20
Zinc	28.8		28.36		mg/Kg	✱	1	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-799954/1-A

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799954

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0040	mg/Kg		09/07/21 03:31	09/07/21 07:21	1

Lab Sample ID: LCSSRM 460-799954/2-A ^40

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799954

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	16.5	16.61		mg/Kg		100.7	74.5 - 124.8

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799954

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0061	J	0.100	0.117		mg/Kg	✱	110	80 - 120

Lab Sample ID: 460-242115-11 DU

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799954

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.0061	J	0.00621	J	mg/Kg	✱	2	20

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-801163/1-A

Matrix: Solid

Analysis Batch: 801213

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 801163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/14/21 11:21	09/14/21 13:50	1

Lab Sample ID: LCS1 460-801163/3-A

Matrix: Solid

Analysis Batch: 801213

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 801163

Analyte	Spike Added	LCS1 Result	LCS1 Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	711.8		mg/Kg		101	80 - 120

Lab Sample ID: LCSSRM 460-801163/2-A

Matrix: Solid

Analysis Batch: 801213

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 801163

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	12.78		mg/Kg		103.6	84.0 - 114.6

Lab Sample ID: 460-242115-4 MSI

Matrix: Solid

Analysis Batch: 801213

Client Sample ID: 073_DUP-3

Prep Type: Total/NA

Prep Batch: 801163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.3	U	822	835.4		mg/Kg	✱	102	75 - 125

Lab Sample ID: 460-242115-4 MSS

Matrix: Solid

Analysis Batch: 801213

Client Sample ID: 073_DUP-3

Prep Type: Total/NA

Prep Batch: 801163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.3	U	46.5	45.27		mg/Kg	✱	97	75 - 125

Lab Sample ID: 460-242115-4 DU

Matrix: Solid

Analysis Batch: 801213

Client Sample ID: 073_DUP-3

Prep Type: Total/NA

Prep Batch: 801163

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.3	U	2.3	U	mg/Kg	✱	NC	20

Lab Sample ID: MB 460-802005/1-A

Matrix: Solid

Analysis Batch: 802056

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 802005

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/18/21 08:32	09/18/21 12:46	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS1 460-802005/3-A

Matrix: Solid

Analysis Batch: 802056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	690.9		mg/Kg		98	80 - 120

Lab Sample ID: LCSSRM 460-802005/2-A

Matrix: Solid

Analysis Batch: 802056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	11.49		mg/Kg		93.1	84.0 - 114.6

Lab Sample ID: LCSSRM 460-802005/4-A

Matrix: Solid

Analysis Batch: 802056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	154	83.76		mg/Kg		54.4	21.2 - 120.1

Lab Sample ID: 460-242115-6 MSI

Matrix: Solid

Analysis Batch: 802056

Client Sample ID: 075_LB-40_15-16

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.4	U	849	817.2		mg/Kg	✱	96	75 - 125

Lab Sample ID: 460-242115-6 MSS

Matrix: Solid

Analysis Batch: 802056

Client Sample ID: 075_LB-40_15-16

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.4	U	48.0	41.11		mg/Kg	✱	86	75 - 125

Lab Sample ID: 460-242115-11 MSI

Matrix: Solid

Analysis Batch: 802057

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.4	U	867	732.3		mg/Kg	✱	85	75 - 125

Lab Sample ID: 460-242115-11 MSS

Matrix: Solid

Analysis Batch: 802057

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.4	U	49.0	39.00		mg/Kg	✱	80	75 - 125

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-242115-6 DU

Matrix: Solid

Analysis Batch: 802056

Client Sample ID: 075_LB-40_15-16

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.4	U	2.4	U	mg/Kg	✱	NC	20

Lab Sample ID: 460-242115-11 DU

Matrix: Solid

Analysis Batch: 802057

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 802005

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cr (VI)	2.4	U	2.4	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MRL 460-799927/1-A

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799927

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.0100	0.0134		mg/L		134	50 - 150

Lab Sample ID: MB 460-799931/1-A

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		09/05/21 15:08	09/06/21 19:32	1

Lab Sample ID: LCSSRM 460-799931/2-A ^20

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	95.3	71.52		mg/Kg		75.0	23.7 - 123.8

Lab Sample ID: 460-242115-11 MS

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.26	U	5.25	4.59		mg/Kg	✱	88	11 - 108

Lab Sample ID: 460-242115-11 MSD

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Cyanide, Total	0.26	U	5.25	5.72	N	mg/Kg	✱	109	11 - 108	22	40

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method: Moisture - Percent Moisture

Lab Sample ID: 460-242115-11 DU

Matrix: Solid

Analysis Batch: 800030

Client Sample ID: 080_LB-44_8-10

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	18.3		18.3		%		0	20
Percent Solids	81.7		81.7		%		0	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

GC/MS VOA

Prep Batch: 799720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-5	074_LB-40_5-7	Total/NA	Solid	5035	

Prep Batch: 799722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	5035	
460-242115-2	071_DUP-2	Total/NA	Solid	5035	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	5035	
460-242115-4	073_DUP-3	Total/NA	Solid	5035	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	5035	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	5035	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	5035	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	5035	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	5035	
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	5035	

Analysis Batch: 799789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-12	081_TB-4	Total/NA	Water	8260D	
MB 460-799789/9	Method Blank	Total/NA	Water	8260D	
LCS 460-799789/4	Lab Control Sample	Total/NA	Water	8260D	
460-241683-B-5 MS	Matrix Spike	Total/NA	Water	8260D	
460-241683-B-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 799947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	8260D	799722
460-242115-2	071_DUP-2	Total/NA	Solid	8260D	799722
460-242115-3	072_LB-39_15-16	Total/NA	Solid	8260D	799722
460-242115-4	073_DUP-3	Total/NA	Solid	8260D	799722
460-242115-6	075_LB-40_15-16	Total/NA	Solid	8260D	799722
460-242115-7	076_LB-41_5-7	Total/NA	Solid	8260D	799722
460-242115-8	077_LB-41_15-16	Total/NA	Solid	8260D	799722
460-242115-11	080_LB-44_8-10	Total/NA	Solid	8260D	799722
MB 460-799947/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-799947/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-799947/14	Lab Control Sample Dup	Total/NA	Solid	8260D	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	8260D	799722
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	8260D	799722

Analysis Batch: 799952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-5	074_LB-40_5-7	Total/NA	Solid	8260D	799720
MB 460-799952/10	Method Blank	Total/NA	Solid	8260D	
LCS 460-799952/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-799952/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 799848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

GC/MS Semi VOA (Continued)

Prep Batch: 799848 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-2	071_DUP-2	Total/NA	Solid	3546	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	3546	
460-242115-4	073_DUP-3	Total/NA	Solid	3546	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	3546	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	3546	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	3546	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	3546	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	3546	
MB 460-799848/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799848/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799848/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	3546	
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	3546	

Analysis Batch: 799863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	8270E	799848
460-242115-2	071_DUP-2	Total/NA	Solid	8270E	799848
460-242115-3	072_LB-39_15-16	Total/NA	Solid	8270E	799848
460-242115-6	075_LB-40_15-16	Total/NA	Solid	8270E	799848
460-242115-11	080_LB-44_8-10	Total/NA	Solid	8270E	799848
MB 460-799848/1-A	Method Blank	Total/NA	Solid	8270E	799848
LCS 460-799848/2-A	Lab Control Sample	Total/NA	Solid	8270E	799848
LCSD 460-799848/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	799848
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	8270E	799848
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	8270E	799848

Analysis Batch: 799926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-4	073_DUP-3	Total/NA	Solid	8270E	799848
460-242115-5	074_LB-40_5-7	Total/NA	Solid	8270E	799848
460-242115-7	076_LB-41_5-7	Total/NA	Solid	8270E	799848
460-242115-8	077_LB-41_15-16	Total/NA	Solid	8270E	799848

GC Semi VOA

Prep Batch: 799833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	3546	
460-242115-2	071_DUP-2	Total/NA	Solid	3546	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	3546	
460-242115-4	073_DUP-3	Total/NA	Solid	3546	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	3546	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	3546	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	3546	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	3546	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	3546	
MB 460-799833/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799833/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799833/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

GC Semi VOA (Continued)

Prep Batch: 799833 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	3546	

Prep Batch: 799834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	3546	
460-242115-2	071_DUP-2	Total/NA	Solid	3546	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	3546	
460-242115-4	073_DUP-3	Total/NA	Solid	3546	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	3546	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	3546	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	3546	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	3546	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	3546	
MB 460-799834/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799834/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799834/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	3546	
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	3546	

Analysis Batch: 799904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	8082A	799833
460-242115-2	071_DUP-2	Total/NA	Solid	8082A	799833
460-242115-3	072_LB-39_15-16	Total/NA	Solid	8082A	799833
460-242115-4	073_DUP-3	Total/NA	Solid	8082A	799833
460-242115-5	074_LB-40_5-7	Total/NA	Solid	8082A	799833
460-242115-6	075_LB-40_15-16	Total/NA	Solid	8082A	799833
460-242115-7	076_LB-41_5-7	Total/NA	Solid	8082A	799833
460-242115-8	077_LB-41_15-16	Total/NA	Solid	8082A	799833
460-242115-11	080_LB-44_8-10	Total/NA	Solid	8082A	799833
MB 460-799833/1-A	Method Blank	Total/NA	Solid	8082A	799833
LCS 460-799833/2-A	Lab Control Sample	Total/NA	Solid	8082A	799833
LCSD 460-799833/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	799833
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	8082A	799833
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	8082A	799833

Analysis Batch: 799955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	8081B	799834
460-242115-2	071_DUP-2	Total/NA	Solid	8081B	799834
460-242115-3	072_LB-39_15-16	Total/NA	Solid	8081B	799834
460-242115-4	073_DUP-3	Total/NA	Solid	8081B	799834
460-242115-5	074_LB-40_5-7	Total/NA	Solid	8081B	799834
460-242115-6	075_LB-40_15-16	Total/NA	Solid	8081B	799834
460-242115-7	076_LB-41_5-7	Total/NA	Solid	8081B	799834
460-242115-8	077_LB-41_15-16	Total/NA	Solid	8081B	799834
460-242115-11	080_LB-44_8-10	Total/NA	Solid	8081B	799834
MB 460-799834/1-A	Method Blank	Total/NA	Solid	8081B	799834
LCS 460-799834/2-A	Lab Control Sample	Total/NA	Solid	8081B	799834
LCSD 460-799834/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	799834
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	8081B	799834

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

GC Semi VOA (Continued)

Analysis Batch: 799955 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	8081B	799834

Prep Batch: 800298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	8151A	
460-242115-2	071_DUP-2	Total/NA	Solid	8151A	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	8151A	
460-242115-4	073_DUP-3	Total/NA	Solid	8151A	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	8151A	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	8151A	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	8151A	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	8151A	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	8151A	
MB 460-800298/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-800298/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-800298/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	8151A	
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	8151A	

Analysis Batch: 800372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	8151A	800298
460-242115-2	071_DUP-2	Total/NA	Solid	8151A	800298
460-242115-3	072_LB-39_15-16	Total/NA	Solid	8151A	800298
460-242115-4	073_DUP-3	Total/NA	Solid	8151A	800298
460-242115-5	074_LB-40_5-7	Total/NA	Solid	8151A	800298
460-242115-6	075_LB-40_15-16	Total/NA	Solid	8151A	800298
460-242115-7	076_LB-41_5-7	Total/NA	Solid	8151A	800298
460-242115-8	077_LB-41_15-16	Total/NA	Solid	8151A	800298
460-242115-11	080_LB-44_8-10	Total/NA	Solid	8151A	800298
MB 460-800298/1-A	Method Blank	Total/NA	Solid	8151A	800298
LCS 460-800298/2-A	Lab Control Sample	Total/NA	Solid	8151A	800298
LCSD 460-800298/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	800298
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	8151A	800298
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	8151A	800298

LCMS

Prep Batch: 168302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	SHAKE	
460-242115-2	071_DUP-2	Total/NA	Solid	SHAKE	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	SHAKE	
460-242115-4	073_DUP-3	Total/NA	Solid	SHAKE	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	SHAKE	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	SHAKE	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	SHAKE	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	SHAKE	
460-242115-9	078_LB-42_5-7	Total/NA	Solid	SHAKE	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	SHAKE	
460-242115-13	082_LB-43_9-11	Total/NA	Solid	SHAKE	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

LCMS (Continued)

Prep Batch: 168302 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-168302/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-168302/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	SHAKE	
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	SHAKE	

Cleanup Batch: 168386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	Extract Aliquot	168302
460-242115-2	071_DUP-2	Total/NA	Solid	Extract Aliquot	168302
460-242115-3	072_LB-39_15-16	Total/NA	Solid	Extract Aliquot	168302
460-242115-4	073_DUP-3	Total/NA	Solid	Extract Aliquot	168302
460-242115-5	074_LB-40_5-7	Total/NA	Solid	Extract Aliquot	168302
460-242115-6	075_LB-40_15-16	Total/NA	Solid	Extract Aliquot	168302
460-242115-7	076_LB-41_5-7	Total/NA	Solid	Extract Aliquot	168302
460-242115-8	077_LB-41_15-16	Total/NA	Solid	Extract Aliquot	168302
460-242115-9	078_LB-42_5-7	Total/NA	Solid	Extract Aliquot	168302
460-242115-11	080_LB-44_8-10	Total/NA	Solid	Extract Aliquot	168302
460-242115-13	082_LB-43_9-11	Total/NA	Solid	Extract Aliquot	168302
MB 410-168302/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	168302
LCS 410-168302/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	168302
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	Extract Aliquot	168302
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	Extract Aliquot	168302

Prep Batch: 168919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-10	079_FB-5	Total/NA	Water	537 IDA	
MB 410-168919/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-168919/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
410-53506-A-14-B MS	Matrix Spike	Total/NA	Water	537 IDA	
410-53506-A-14-C MSD	Matrix Spike Duplicate	Total/NA	Water	537 IDA	

Analysis Batch: 169745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-168919/1-A	Method Blank	Total/NA	Water	537 IDA	168919
LCS 410-168919/2-A	Lab Control Sample	Total/NA	Water	537 IDA	168919
410-53506-A-14-B MS	Matrix Spike	Total/NA	Water	537 IDA	168919
410-53506-A-14-C MSD	Matrix Spike Duplicate	Total/NA	Water	537 IDA	168919

Analysis Batch: 170021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	537 IDA	168386
460-242115-2	071_DUP-2	Total/NA	Solid	537 IDA	168386
460-242115-3	072_LB-39_15-16	Total/NA	Solid	537 IDA	168386
460-242115-4	073_DUP-3	Total/NA	Solid	537 IDA	168386
460-242115-5	074_LB-40_5-7	Total/NA	Solid	537 IDA	168386
460-242115-6	075_LB-40_15-16	Total/NA	Solid	537 IDA	168386
460-242115-7	076_LB-41_5-7	Total/NA	Solid	537 IDA	168386
460-242115-8	077_LB-41_15-16	Total/NA	Solid	537 IDA	168386
460-242115-9	078_LB-42_5-7	Total/NA	Solid	537 IDA	168386
460-242115-11	080_LB-44_8-10	Total/NA	Solid	537 IDA	168386
460-242115-13	082_LB-43_9-11	Total/NA	Solid	537 IDA	168386

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

LCMS (Continued)

Analysis Batch: 170021 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-168302/1-B	Method Blank	Total/NA	Solid	537 IDA	168386
LCS 410-168302/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	168386
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	537 IDA	168386
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	537 IDA	168386

Analysis Batch: 170888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-10	079_FB-5	Total/NA	Water	537 IDA	168919

Metals

Prep Batch: 799954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	7471B	
460-242115-2	071_DUP-2	Total/NA	Solid	7471B	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	7471B	
460-242115-4	073_DUP-3	Total/NA	Solid	7471B	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	7471B	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	7471B	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	7471B	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	7471B	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	7471B	
MB 460-799954/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-799954/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	7471B	
460-242115-11 DU	080_LB-44_8-10	Total/NA	Solid	7471B	

Analysis Batch: 800040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	7471B	799954
460-242115-2	071_DUP-2	Total/NA	Solid	7471B	799954
460-242115-3	072_LB-39_15-16	Total/NA	Solid	7471B	799954
460-242115-4	073_DUP-3	Total/NA	Solid	7471B	799954
460-242115-5	074_LB-40_5-7	Total/NA	Solid	7471B	799954
460-242115-6	075_LB-40_15-16	Total/NA	Solid	7471B	799954
460-242115-7	076_LB-41_5-7	Total/NA	Solid	7471B	799954
460-242115-8	077_LB-41_15-16	Total/NA	Solid	7471B	799954
460-242115-11	080_LB-44_8-10	Total/NA	Solid	7471B	799954
MB 460-799954/1-A	Method Blank	Total/NA	Solid	7471B	799954
LCSSRM 460-799954/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	799954
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	7471B	799954
460-242115-11 DU	080_LB-44_8-10	Total/NA	Solid	7471B	799954

Prep Batch: 800347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	3050B	
460-242115-2	071_DUP-2	Total/NA	Solid	3050B	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	3050B	
460-242115-4	073_DUP-3	Total/NA	Solid	3050B	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	3050B	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	3050B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Metals (Continued)

Prep Batch: 800347 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-7	076_LB-41_5-7	Total/NA	Solid	3050B	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	3050B	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	3050B	
MB 460-800347/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-800347/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	3050B	
460-242115-11 DU	080_LB-44_8-10	Total/NA	Solid	3050B	

Analysis Batch: 800413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	6020B	800347
460-242115-2	071_DUP-2	Total/NA	Solid	6020B	800347
460-242115-3	072_LB-39_15-16	Total/NA	Solid	6020B	800347
460-242115-4	073_DUP-3	Total/NA	Solid	6020B	800347
460-242115-5	074_LB-40_5-7	Total/NA	Solid	6020B	800347
460-242115-6	075_LB-40_15-16	Total/NA	Solid	6020B	800347
460-242115-7	076_LB-41_5-7	Total/NA	Solid	6020B	800347
460-242115-8	077_LB-41_15-16	Total/NA	Solid	6020B	800347
460-242115-11	080_LB-44_8-10	Total/NA	Solid	6020B	800347
MB 460-800347/1-A	Method Blank	Total/NA	Solid	6020B	800347
LCSSRM 460-800347/2-A ^5	Lab Control Sample	Total/NA	Solid	6020B	800347
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	6020B	800347
460-242115-11 DU	080_LB-44_8-10	Total/NA	Solid	6020B	800347

General Chemistry

Analysis Batch: 171503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-9	078_LB-42_5-7	Total/NA	Solid	Moisture	
460-242115-13	082_LB-43_9-11	Total/NA	Solid	Moisture	

Prep Batch: 799927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-799927/1-A	Lab Control Sample	Total/NA	Solid	9012B	

Prep Batch: 799931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	9012B	
460-242115-2	071_DUP-2	Total/NA	Solid	9012B	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	9012B	
460-242115-4	073_DUP-3	Total/NA	Solid	9012B	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	9012B	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	9012B	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	9012B	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	9012B	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	9012B	
MB 460-799931/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-799931/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	9012B	
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	9012B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

General Chemistry

Analysis Batch: 799943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	9012B	799931
460-242115-2	071_DUP-2	Total/NA	Solid	9012B	799931
460-242115-3	072_LB-39_15-16	Total/NA	Solid	9012B	799931
460-242115-4	073_DUP-3	Total/NA	Solid	9012B	799931
460-242115-5	074_LB-40_5-7	Total/NA	Solid	9012B	799931
460-242115-6	075_LB-40_15-16	Total/NA	Solid	9012B	799931
460-242115-7	076_LB-41_5-7	Total/NA	Solid	9012B	799931
460-242115-8	077_LB-41_15-16	Total/NA	Solid	9012B	799931
460-242115-11	080_LB-44_8-10	Total/NA	Solid	9012B	799931
MB 460-799931/1-A	Method Blank	Total/NA	Solid	9012B	799931
LCSSRM 460-799931/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	799931
MRL 460-799927/1-A	Lab Control Sample	Total/NA	Solid	9012B	799927
460-242115-11 MS	080_LB-44_8-10	Total/NA	Solid	9012B	799931
460-242115-11 MSD	080_LB-44_8-10	Total/NA	Solid	9012B	799931

Analysis Batch: 799991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	7196A	
460-242115-2	071_DUP-2	Total/NA	Solid	7196A	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	7196A	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	7196A	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	7196A	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	7196A	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	7196A	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	7196A	

Analysis Batch: 800030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	Moisture	
460-242115-2	071_DUP-2	Total/NA	Solid	Moisture	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	Moisture	
460-242115-4	073_DUP-3	Total/NA	Solid	Moisture	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	Moisture	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	Moisture	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	Moisture	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	Moisture	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	Moisture	
460-242115-11 MSI	080_LB-44_8-10	Total/NA	Solid	Moisture	
460-242115-11 MSS	080_LB-44_8-10	Total/NA	Solid	Moisture	
460-242115-11 DU	080_LB-44_8-10	Total/NA	Solid	Moisture	

Analysis Batch: 800904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-4	073_DUP-3	Total/NA	Solid	7196A	

Prep Batch: 801163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-4	073_DUP-3	Total/NA	Solid	3060A	
MB 460-801163/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-801163/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-801163/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

General Chemistry (Continued)

Prep Batch: 801163 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-4 MSI	073_DUP-3	Total/NA	Solid	3060A	
460-242115-4 MSS	073_DUP-3	Total/NA	Solid	3060A	
460-242115-4 DU	073_DUP-3	Total/NA	Solid	3060A	

Analysis Batch: 801213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-4	073_DUP-3	Total/NA	Solid	7196A	801163
MB 460-801163/1-A	Method Blank	Total/NA	Solid	7196A	801163
LCSI 460-801163/3-A	Lab Control Sample	Total/NA	Solid	7196A	801163
LCSSRM 460-801163/2-A	Lab Control Sample	Total/NA	Solid	7196A	801163
460-242115-4 MSI	073_DUP-3	Total/NA	Solid	7196A	801163
460-242115-4 MSS	073_DUP-3	Total/NA	Solid	7196A	801163
460-242115-4 DU	073_DUP-3	Total/NA	Solid	7196A	801163

Prep Batch: 802005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	3060A	
460-242115-2	071_DUP-2	Total/NA	Solid	3060A	
460-242115-3	072_LB-39_15-16	Total/NA	Solid	3060A	
460-242115-5	074_LB-40_5-7	Total/NA	Solid	3060A	
460-242115-6	075_LB-40_15-16	Total/NA	Solid	3060A	
460-242115-7	076_LB-41_5-7	Total/NA	Solid	3060A	
460-242115-8	077_LB-41_15-16	Total/NA	Solid	3060A	
460-242115-11	080_LB-44_8-10	Total/NA	Solid	3060A	
MB 460-802005/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-802005/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-802005/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-802005/4-A	Lab Control Sample	Total/NA	Solid	3060A	
460-242115-6 MSI	075_LB-40_15-16	Total/NA	Solid	3060A	
460-242115-6 MSS	075_LB-40_15-16	Total/NA	Solid	3060A	
460-242115-11 MSI	080_LB-44_8-10	Total/NA	Solid	3060A	
460-242115-11 MSS	080_LB-44_8-10	Total/NA	Solid	3060A	
460-242115-6 DU	075_LB-40_15-16	Total/NA	Solid	3060A	
460-242115-11 DU	080_LB-44_8-10	Total/NA	Solid	3060A	

Analysis Batch: 802056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-1	070_LB-38_16-17	Total/NA	Solid	7196A	802005
460-242115-2	071_DUP-2	Total/NA	Solid	7196A	802005
460-242115-3	072_LB-39_15-16	Total/NA	Solid	7196A	802005
460-242115-5	074_LB-40_5-7	Total/NA	Solid	7196A	802005
460-242115-6	075_LB-40_15-16	Total/NA	Solid	7196A	802005
460-242115-7	076_LB-41_5-7	Total/NA	Solid	7196A	802005
460-242115-8	077_LB-41_15-16	Total/NA	Solid	7196A	802005
MB 460-802005/1-A	Method Blank	Total/NA	Solid	7196A	802005
LCSI 460-802005/3-A	Lab Control Sample	Total/NA	Solid	7196A	802005
LCSSRM 460-802005/2-A	Lab Control Sample	Total/NA	Solid	7196A	802005
LCSSRM 460-802005/4-A	Lab Control Sample	Total/NA	Solid	7196A	802005
460-242115-6 MSI	075_LB-40_15-16	Total/NA	Solid	7196A	802005
460-242115-6 MSS	075_LB-40_15-16	Total/NA	Solid	7196A	802005
460-242115-6 DU	075_LB-40_15-16	Total/NA	Solid	7196A	802005

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

General Chemistry

Analysis Batch: 802057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242115-11	080_LB-44_8-10	Total/NA	Solid	7196A	802005
460-242115-11 MSI	080_LB-44_8-10	Total/NA	Solid	7196A	802005
460-242115-11 MSS	080_LB-44_8-10	Total/NA	Solid	7196A	802005
460-242115-11 DU	080_LB-44_8-10	Total/NA	Solid	7196A	802005

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 070_LB-38_16-17

Lab Sample ID: 460-242115-1

Date Collected: 09/02/21 09:30

Matrix: Solid

Date Received: 09/02/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:27
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 070_LB-38_16-17

Lab Sample ID: 460-242115-1

Date Collected: 09/02/21 09:30

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799722	YXG	EET EDI	09/03/21 16:55
Total/NA	Analysis	8260D		1	799947	EMM	EET EDI	09/07/21 12:14
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799863	YAH	EET EDI	09/04/21 22:46
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 06:04
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 15:21
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 09:26
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 13:13
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 13:12
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 08:15
Total/NA	Prep	3060A			802005	OXG	EET EDI	09/18/21 08:32 - 09/18/21 11:00 ¹
Total/NA	Analysis	7196A		1	802056	OXG	EET EDI	09/18/21 12:46
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:46

Client Sample ID: 071_DUP-2

Lab Sample ID: 460-242115-2

Date Collected: 09/02/21 09:40

Matrix: Solid

Date Received: 09/02/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:27
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 071_DUP-2

Lab Sample ID: 460-242115-2

Date Collected: 09/02/21 09:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799722	YXG	EET EDI	09/03/21 16:56
Total/NA	Analysis	8260D		1	799947	EMM	EET EDI	09/07/21 12:36

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 071_DUP-2

Lab Sample ID: 460-242115-2

Date Collected: 09/02/21 09:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799863	YAH	EET EDI	09/04/21 23:09
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 06:16
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 15:41
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 09:41
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 13:23
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 13:28
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 08:17
Total/NA	Prep	3060A			802005	OXG	EET EDI	09/18/21 08:32 - 09/18/21 11:00 ¹
Total/NA	Analysis	7196A		1	802056	OXG	EET EDI	09/18/21 12:46
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:47

Client Sample ID: 072_LB-39_15-16

Lab Sample ID: 460-242115-3

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:28
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 072_LB-39_15-16

Lab Sample ID: 460-242115-3

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799722	YXG	EET EDI	09/03/21 16:57
Total/NA	Analysis	8260D		1	799947	EMM	EET EDI	09/07/21 12:59
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799863	YAH	EET EDI	09/04/21 23:32
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 06:29
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 16:03
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 09:56

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 072_LB-39_15-16

Lab Sample ID: 460-242115-3

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 13:34
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 13:30
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 08:19
Total/NA	Prep	3060A			802005	OXG	EET EDI	09/18/21 08:32 - 09/18/21 11:00 ¹
Total/NA	Analysis	7196A		1	802056	OXG	EET EDI	09/18/21 12:46
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:54

Client Sample ID: 073_DUP-3

Lab Sample ID: 460-242115-4

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	800904	TJW	EET EDI	09/12/21 21:17
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 073_DUP-3

Lab Sample ID: 460-242115-4

Date Collected: 09/02/21 10:40

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799722	YXG	EET EDI	09/03/21 16:58
Total/NA	Analysis	8260D		1	799947	EMM	EET EDI	09/07/21 13:22
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799926	YAH	EET EDI	09/05/21 17:46
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 06:41
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 16:26
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 10:11
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 13:44
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 13:32
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 08:20
Total/NA	Prep	3060A			801163	RAK	EET EDI	09/14/21 11:21 - 09/16/21 08:49 ¹
Total/NA	Analysis	7196A		1	801213	RAK	EET EDI	09/14/21 13:50

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 073_DUP-3

Date Collected: 09/02/21 10:40

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-4

Matrix: Solid

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:55

Client Sample ID: 074_LB-40_5-7

Date Collected: 09/02/21 11:15

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:28
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 074_LB-40_5-7

Date Collected: 09/02/21 11:15

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-5

Matrix: Solid

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799720	YXG	EET EDI	09/03/21 16:50
Total/NA	Analysis	8260D		50	799952	KLB	EET EDI	09/07/21 10:31
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799926	YAH	EET EDI	09/06/21 01:47
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 06:53
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 16:48
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 10:25
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 13:55
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 13:34
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 08:22
Total/NA	Prep	3060A			802005	OXG	EET EDI	09/18/21 08:32 - 09/18/21 11:00 ¹
Total/NA	Analysis	7196A		1	802056	OXG	EET EDI	09/18/21 12:46
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:55

Client Sample ID: 075_LB-40_15-16

Date Collected: 09/02/21 11:25

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:28
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 075_LB-40_15-16

Lab Sample ID: 460-242115-6

Date Collected: 09/02/21 11:25

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799722	YXG	EET EDI	09/03/21 17:00
Total/NA	Analysis	8260D		1	799947	EMM	EET EDI	09/07/21 13:44
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799863	YAH	EET EDI	09/05/21 00:18
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 07:06
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 17:08
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 10:40
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 14:06
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 13:37
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 08:24
Total/NA	Prep	3060A			802005	OXG	EET EDI	09/18/21 08:32 - 09/18/21 11:00 ¹
Total/NA	Analysis	7196A		1	802056	OXG	EET EDI	09/18/21 12:46
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:56

Client Sample ID: 076_LB-41_5-7

Lab Sample ID: 460-242115-7

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:28
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 076_LB-41_5-7

Lab Sample ID: 460-242115-7

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799722	YXG	EET EDI	09/03/21 17:01
Total/NA	Analysis	8260D		1	799947	EMM	EET EDI	09/07/21 14:07
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799926	YAH	EET EDI	09/05/21 18:03
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 07:18
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 20:25
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 10:55

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 076_LB-41_5-7

Lab Sample ID: 460-242115-7

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 14:16
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 13:50
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 08:25
Total/NA	Prep	3060A			802005	OXG	EET EDI	09/18/21 08:32 - 09/18/21 11:00 ¹
Total/NA	Analysis	7196A		1	802056	OXG	EET EDI	09/18/21 12:46
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:57

Client Sample ID: 077_LB-41_15-16

Lab Sample ID: 460-242115-8

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:28
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 077_LB-41_15-16

Lab Sample ID: 460-242115-8

Date Collected: 09/02/21 13:45

Matrix: Solid

Date Received: 09/02/21 18:30

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799722	YXG	EET EDI	09/03/21 17:02
Total/NA	Analysis	8260D		1	799947	EMM	EET EDI	09/07/21 14:30
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799926	YAH	EET EDI	09/05/21 18:20
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 07:30
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 17:51
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 11:10
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 14:27
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 13:52
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 08:27
Total/NA	Prep	3060A			802005	OXG	EET EDI	09/18/21 08:32 - 09/18/21 11:00 ¹
Total/NA	Analysis	7196A		1	802056	OXG	EET EDI	09/18/21 12:46

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 077_LB-41_15-16

Date Collected: 09/02/21 13:45

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-8

Matrix: Solid

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:58

Client Sample ID: 078_LB-42_5-7

Date Collected: 09/02/21 14:00

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	171503	UGCW	ELLE	09/15/21 10:29

Client Sample ID: 078_LB-42_5-7

Date Collected: 09/02/21 14:00

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-9

Matrix: Solid

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 14:37

Client Sample ID: 079_FB-5

Date Collected: 09/02/21 14:10

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537 IDA			168919	D5VP	ELLE	09/08/21 09:14
Total/NA	Analysis	537 IDA		1	170888	UCD3	ELLE	09/14/21 07:35

Client Sample ID: 080_LB-44_8-10

Date Collected: 09/02/21 14:30

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 07:28
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 080_LB-44_8-10

Date Collected: 09/02/21 14:30

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-11

Matrix: Solid

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799722	YXG	EET EDI	09/03/21 17:03
Total/NA	Analysis	8260D		1	799947	EMM	EET EDI	09/07/21 10:20
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799863	YAH	EET EDI	09/04/21 21:37
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 05:52

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Client Sample ID: 080_LB-44_8-10

Date Collected: 09/02/21 14:30

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-11

Matrix: Solid

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 14:16
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 09:12
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 14:48
Total/NA	Prep	3050B			800347	GMC	EET EDI	09/09/21 04:11
Total/NA	Analysis	6020B		1	800413	MDC	EET EDI	09/09/21 11:48
Total/NA	Prep	7471B			799954	TJS	EET EDI	09/07/21 03:31
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 07:24
Total/NA	Prep	3060A			802005	OXG	EET EDI	09/18/21 08:32 - 09/18/21 11:00 ¹
Total/NA	Analysis	7196A		1	802057	OXG	EET EDI	09/18/21 13:20
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:51

Client Sample ID: 081_TB-4

Date Collected: 09/02/21 00:00

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	799789	MZS	EET EDI	09/04/21 14:23

Client Sample ID: 082_LB-43_9-11

Date Collected: 09/02/21 14:40

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	171503	UGCW	ELLE	09/15/21 10:29

Client Sample ID: 082_LB-43_9-11

Date Collected: 09/02/21 14:40

Date Received: 09/02/21 18:30

Lab Sample ID: 460-242115-13

Matrix: Solid

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			168302	PR5J	ELLE	09/07/21 06:47
Total/NA	Cleanup	Extract Aliquot			168386	PR5J	ELLE	09/07/21 08:47
Total/NA	Analysis	537 IDA		1	170021	Y6ZN	ELLE	09/10/21 15:30

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	12-09-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	10-12-21
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-00660	08-08-22
California	State	2792	01-31-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-10-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	10-12-21
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	10-19-21
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-21
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-16-22
Massachusetts	State	M-PA009	10-17-21
Michigan	State	9930	09-29-21
Minnesota	NELAP	042-999-487	11-04-21
Missouri	State	450	11-09-21
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	09-19-21
New York	NELAP	10670	10-11-21
North Carolina (DW)	State	42705	06-30-22
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	09-28-21
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-30-22
Texas	NELAP	T104704194-22-43	10-14-21
USDA	US Federal Programs	P330-19-00197	07-03-22
Vermont	State	VT - 36037	10-27-21
Virginia	NELAP	460182	10-25-21
Washington	State	C457	04-11-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	09-30-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET EDI
8081B	Organochlorine Pesticides (GC)	SW846	EET EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET EDI
8151A	Herbicides (GC)	SW846	EET EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	EET EDI
7471B	Mercury (CVAA)	SW846	EET EDI
7196A	Chromium, Hexavalent	SW846	EET EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	EET EDI
9012B	Cyanide, Total and/or Amenable	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET EDI
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	EET EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET EDI
3546	Microwave Extraction	SW846	EET EDI
5030C	Purge and Trap	SW846	EET EDI
5035	Closed System Purge and Trap	SW846	EET EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
7471B	Preparation, Mercury	SW846	EET EDI
8151A	Extraction (Herbicides)	SW846	EET EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242115-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-242115-1	070_LB-38_16-17	Solid	09/02/21 09:30	09/02/21 18:30
460-242115-2	071_DUP-2	Solid	09/02/21 09:40	09/02/21 18:30
460-242115-3	072_LB-39_15-16	Solid	09/02/21 10:40	09/02/21 18:30
460-242115-4	073_DUP-3	Solid	09/02/21 10:40	09/02/21 18:30
460-242115-5	074_LB-40_5-7	Solid	09/02/21 11:15	09/02/21 18:30
460-242115-6	075_LB-40_15-16	Solid	09/02/21 11:25	09/02/21 18:30
460-242115-7	076_LB-41_5-7	Solid	09/02/21 13:45	09/02/21 18:30
460-242115-8	077_LB-41_15-16	Solid	09/02/21 13:45	09/02/21 18:30
460-242115-9	078_LB-42_5-7	Solid	09/02/21 14:00	09/02/21 18:30
460-242115-10	079_FB-5	Water	09/02/21 14:10	09/02/21 18:30
460-242115-11	080_LB-44_8-10	Solid	09/02/21 14:30	09/02/21 18:30
460-242115-12	081_TB-4	Water	09/02/21 00:00	09/02/21 18:30
460-242115-13	082_LB-43_9-11	Solid	09/02/21 14:40	09/02/21 18:30

Chain of Custody Record 471092



Environment Testing
TestAmerica

Address: 2455 Third Ave, Bronx NY

TAL-8210

Regulatory Program: ☐ DW ☐ NPDES ☒ RCRA ☒ Other: **NYSDEC**

Company Name: Langan	Project Manager: A. Fasbinder	Site Contact: M. McBride	Date: 9/21/2021	COC No: 1 of 2
Address: 300 Kimball Dr	Tel/Email: 973 560 4574	Lab Contact: P. G. McBride	Carrier:	

City/State/Zip: Parsippany, NJ	Analysis Turnaround Time
Phone: 973 560 4574	☐ WORKING DAYS
Fax:	TAT if different from Below
	☐ 2 weeks
	☐ 1 week
	☐ 2 days
	☐ 1 day
Project Name: 2455 Third Ave	Standard
Site: 19051761	
P O #	

SHORT HOLD



460-242115 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
070 LB-38 16-17	4/2/21	0930	G	S	8	2	2	
071 DUP-2		0940						
072 LB-39 15-16		1040						
073 DUP-3		1040						
074 LB-40 5-7		1115						
075 LB-40 15-16		1125						
076 LB-41 5-7		1345						
077 LB-41 15-16		1345						
078 LB-42 5-7		1400						
079 FB-5		1410	A	AQ	2			
080 LB-44 8-10		1430	G	S	24			
081 TB-4								

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

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Special Instructions/QC Requirements & Comments: **ASP B and NYSDEC EDD**

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: Morgan McBride	Company: Langan	Date/Time: 9/21/21	Company: ETA	Date/Time: 9:22 15:35
Relinquished by: QAT	Company: ETA	Date/Time: 9-2-21 17:00	Company: Langan	Date/Time: 9-22 17:00
Relinquished by: Langan	Company: Langan	Date/Time: 9-22 15:30	Company: Langan	Date/Time: 9/22/21 18:30

2.0 15 per 20.5 IR9 20.5 ZR9

Address: 2455 Third Ave

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: NYSDEC

TAL-8210

Company Name:	Client Contact	Project Manager: A. Forsberg	Site Contact: M McBride	Date: 9/24/2021	COB No: 2 of 2 COCs
Address:	Address:	Tel/Email: 973 560 4574	Lab Contact: P Glick	Carrier:	
City/State/Zip:	City/State/Zip:	Analysis Turnaround Time			
Phone:	Phone:	☐ CALENDAR DAYS ☐ WORKING DAYS			
Fax:	Fax:	TAT if different from Below			
Project Name:	Project Name:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			
Site:	Site:	Standard			
P O #	P O #	2455 Third Ave			
		19005			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
082_LB-43_9-11	9/24	1440	G	S	1
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other					
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☒ Unknown ☐ Poison B					
Special Instructions/QC Requirements & Comments: ABP B and NYSDEC EPD					

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	Return to Client ☐	Disposal by Lab ☐	Archive for ☐	Months

Relinquished by:	Company:	Date/Time:	Relinquished by:	Company:	Date/Time:
Morgan McBride	Langan	9/24	Relinquished by:	Langan	9/24 15:35
Relinquished by:	Company:	Date/Time:	Relinquished by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Relinquished by:	Company:	Date/Time:

2015 ZPR 2015 ZPR

IR Gun #

Cooler Temperatures

Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Volume of Preservative used (ml):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: Kamal

Chain of Custody Record 471092

2455 Third Ave, Bronx NY

Environment Testing
TestAmerica

Address:

Regulatory Program: ☐ DW ☐ NPDES ☒ RCRA ☒ Other: NYSDEC

TAL-8210

Company Name: Langan	Project Manager: A. Fasbarg	Site Contact: M. McBride	Date: 9/21/2021	COC No: 1 of 2 COCs
Address: 300 Kimball Dr	Tel/Email: 973 560 4574	Lab Contact: P. G. McBride	Carrier:	

Analysis Turnaround Time

CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below

2 weeks

1 week

2 days

1 day

Standard

SHORT
HOLDProject Name: 2455 Third Ave
Site: 19051761
P O #

460-242115 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
0701 LB-38-16-17	4/2/21	0930	G	S	8	2	2	
0711 DUP-2		0940						
0721 LB-39-15-16		1040						
0731 DUP-3		1040						
0741 LB-40-5-7		1115						
0751 LB-40-15-16		1125						
0761 LB-41-5-7		1345						
0771 LB-41-15-16		1345						
0781 LB-42-5-7		1400						
0791 FB-5		1410	A	AQ	2			
0801 LB-44-8-10		1430	G	S	24			
0811 TB-4				AQ	2			

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

Possible Hazard Identification:

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Special Instructions/QC Requirements & Comments:

ASP B and NYSDEC EDD

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____	Corr'd: _____	Therm ID No.:
Relinquished by: Morgan McBride	Company: Langan	Date/Time: 9/21/21	Company: ETTA	Date/Time: 9/22/21 15:35
Relinquished by: [Signature]	Company: ETTA	Date/Time: 9-22-21 17:00	Company: [Signature]	Date/Time: 9-22-17000
Relinquished by: [Signature]	Company: [Signature]	Date/Time: 9/22/21 18:30	Company: [Signature]	Date/Time: 9/22/21 1830

2.0 15 per 20.5 IR9 20.5 ZRA

49

CONNECTED		CONNECTED		CONNECTED		CONNECTED	
	RAW		RAW		RAW		RAW
Cooler #1:	20 °C	15 °C	Cooler #4:	°C	°C	Cooler #7:	°C
Cooler #2:	20 °C	15 °C	Cooler #5:	°C	°C	Cooler #8:	°C
Cooler #3:	20 °C	15 °C	Cooler #6:	°C	°C	Cooler #9:	°C

If pH adjustments are required record the information below:

Volume of Preservative used (ml):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Initials: Kand

Date: 9/22/



9/20/2022

Environment Testing
America

9/20/2022

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-242115-1

Login Number: 242115

List Number: 1

Creator: Meyers, Gary

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-242115-1

Login Number: 242115

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 2

List Creation: 09/03/21 10:52 PM

Creator: Metzger, Katherine A

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

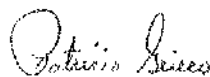
Laboratory Job ID: 460-242141-1

Client Project/Site: 2455 Third Avenue , Bronx, NY

For:

Langan Engineering & Environmental Svcs
300 Kimball Drive
4th Floor
Parsippany, New Jersey 07407

Attn: Brandon Reiner



Authorized for release by:

9/20/2022 12:44:40 PM

Patricia Grieco, Senior Project Manager
(732)593-2507

Patricia.Grieco@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

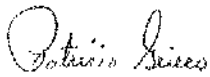
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Patricia Grieco
Senior Project Manager
9/20/2022 12:44:41 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	10
Client Sample Results	12
Surrogate Summary	32
Isotope Dilution Summary	35
QC Sample Results	36
QC Association Summary	67
Lab Chronicle	73
Certification Summary	79
Method Summary	81
Sample Summary	82
Chain of Custody	83
Receipt Checklists	87



Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	ISTD response or retention time outside acceptable limits
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	Duplicate RPD exceeds control limits
*	LCS or LCSD is outside acceptance limits.
U	Analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Sample result is greater than the MDL but below the CRDL
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

Definitions/Glossary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Job ID: 460-242141-1

Laboratory: Eurofins Edison

Narrative

CASE NARRATIVE

Client: Langan Engineering & Environmental Svcs

Project: 2455 Third Avenue , Bronx, NY

Report Number: 460-242141-1

Revision #1: Revise All Sample IDs - COC Provided

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

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

RECEIPT

The samples were received on 09/03/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.0 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 083/LB-28_15-16 (460-242141-1), 084/DUP-5 (460-242141-2), 085/LB-49-8-10 (460-242141-3), 086/LB-49-15-16 (460-242141-4), 087/LB-48-5-7 (460-242141-5), 088/LB-48-15-16 (460-242141-6), 089/LB-47-15-16 (460-242141-7), 090/HS-1-8-10 (460-242141-8), 091/HS-1-10-12 (460-242141-9), 092/LB-27-6-8 (460-242141-10), 093/LB-27-15-16 (460-242141-11), 094/HS-2-8-10 (460-242141-12) and 095/HS-2-10-12 (460-242141-13) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were prepared on 09/03/2021 and analyzed on 09/05/2021, 09/07/2021 and 09/09/2021.

Internal standard (ISTD) response for 1,4-Dioxane-d8 for the following samples and MS/MSD was outside acceptance criteria: 089/LB-47-15-16 (460-242141-7[MS]), 089/LB-47-15-16 (460-242141-7[MSD]), 091/HS-1-10-12 (460-242141-9), 093/LB-27-15-16 (460-242141-11[MSD]) and 094/HS-2-8-10 (460-242141-12). This ISTD does not correspond to any of the detected target compounds; therefore, the data have been reported.

Toluene-d8 (Surr) failed the surrogate recovery criteria high for 089/LB-47-15-16MS (460-242141-7MS). Refer to the QC report for details.

Several analytes failed the recovery criteria low for the MS of sample 093/LB-27-15-16MS (460-242141-11) in batch 460-799878.

Methyl tert-butyl ether failed the recovery criteria low for the MSD of sample 093/LB-27-15-16MSD (460-242141-11) in batch 460-799878.

Methyl tert-butyl ether failed the recovery criteria low for the MS of sample 089/LB-47-15-16MS (460-242141-7) in batch 460-799878.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Job ID: 460-242141-1 (Continued)

Laboratory: Eurofins Edison (Continued)

Refer to the QC report for details.

No other difficulties were encountered during the Volatiles analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 096/TB-5 (460-242141-14) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260D. The samples were analyzed on 09/08/2021.

No difficulties were encountered during the Volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Methods 8270E. The samples were prepared on 09/04/2021 and analyzed on 09/06/2021.

Chrysene failed the recovery criteria low for LCS 460-799848/2-A. Refer to the QC report for details.

1,4-Dioxane, Benzo[a]anthracene and Chrysene failed the recovery criteria low for the MS of sample 460-242115-11 in batch 460-799863.

Several analytes failed the recovery criteria low for the MSD of sample 460-242115-11 in batch 460-799863. Naphthalene exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 09/04/2021 and analyzed on 09/07/2021.

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 09/04/2021 and analyzed on 09/05/2021.

DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 083/LB-28_15-16 (460-242141-1). DCB Decachlorobiphenyl failed the surrogate recovery criteria high for 084/DUP-5 (460-242141-2). Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 09/08/2021 and analyzed on 09/09/2021.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Job ID: 460-242141-1 (Continued)

Laboratory: Eurofins Edison (Continued)

No difficulties were encountered during the herbicides analysis.

All quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared and analyzed on 09/08/2021.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020B. The samples were prepared on 09/10/2021 and analyzed on 09/11/2021 and 09/13/2021.

Chromium was detected in method blank MB 460-800569/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Barium, Chromium, Lead and Zinc failed the recovery criteria low for the MS of sample 460-242245-5 in batch 460-800823. Manganese failed the recovery criteria high.

Refer to the QC report for details.

Cadmium exceeded the RPD limit for the duplicate of sample 460-242245-5. Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were prepared and analyzed on 09/13/2021.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 09/07/2021.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for trivalent chromium in accordance with EPA SW-846 7196A_CR3 by Calculation. The samples were analyzed on 09/07/2021.

No difficulties were encountered during the cr3 analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Job ID: 460-242141-1 (Continued)

Laboratory: Eurofins Edison (Continued)

TOTAL CYANIDE

Samples 083/LB-28_15-16 (460-242141-1) and 084/DUP-5 (460-242141-2) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 09/05/2021 and analyzed on 09/06/2021.

Cyanide, Total failed the recovery criteria high for the MSD of sample 460-242115-11 in batch 460-799943.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 083/LB-28_15-16 (460-242141-1), 084/DUP-5 (460-242141-2), 085/LB-49-8-10 (460-242141-3), 086/LB-49-15-16 (460-242141-4), 087/LB-48-5-7 (460-242141-5), 088/LB-48-15-16 (460-242141-6), 089/LB-47-15-16 (460-242141-7), 090/HS-1-8-10 (460-242141-8), 091/HS-1-10-12 (460-242141-9), 092/LB-27-6-8 (460-242141-10), 093/LB-27-15-16 (460-242141-11), 094/HS-2-8-10 (460-242141-12) and 095/HS-2-10-12 (460-242141-13) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 09/07/2021.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 083_LB-28_15-16

Lab Sample ID: 460-242141-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.2	J	5.3	5.0	ug/Kg	1	✱	8260D	Total/NA
Arsenic	0.70	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	38.9		2.3	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.21	J	0.47	0.067	mg/Kg	1	✱	6020B	Total/NA
Chromium	11.1	B	2.3	0.20	mg/Kg	1	✱	6020B	Total/NA
Copper	8.2		2.3	0.26	mg/Kg	1	✱	6020B	Total/NA
Manganese	84.8		4.7	0.47	mg/Kg	1	✱	6020B	Total/NA
Nickel	10.3		2.3	0.23	mg/Kg	1	✱	6020B	Total/NA
Lead	3.3		0.70	0.23	mg/Kg	1	✱	6020B	Total/NA
Zinc	22.5		9.4	2.7	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	11.1		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 084_DUP-5

Lab Sample ID: 460-242141-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.0	J	1.2	0.12	mg/Kg	1	✱	6020B	Total/NA
Barium	50.6		2.4	0.17	mg/Kg	1	✱	6020B	Total/NA
Beryllium	0.31	J	0.47	0.067	mg/Kg	1	✱	6020B	Total/NA
Chromium	12.8	B	2.4	0.21	mg/Kg	1	✱	6020B	Total/NA
Copper	11.2		2.4	0.26	mg/Kg	1	✱	6020B	Total/NA
Manganese	117		4.7	0.48	mg/Kg	1	✱	6020B	Total/NA
Nickel	12.9		2.4	0.23	mg/Kg	1	✱	6020B	Total/NA
Lead	5.6		0.71	0.24	mg/Kg	1	✱	6020B	Total/NA
Zinc	32.9		9.4	2.7	mg/Kg	1	✱	6020B	Total/NA
Cr (III)	12.8		2.0	2.0	mg/Kg	1		7196A	Total/NA

Client Sample ID: 085_LB-49-8-10

Lab Sample ID: 460-242141-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.7		5.9	5.6	ug/Kg	1	✱	8260D	Total/NA

Client Sample ID: 086_LB-49-15-16

Lab Sample ID: 460-242141-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11		5.6	5.3	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	3.9		1.9	1.1	ug/Kg	1	✱	8260D	Total/NA

Client Sample ID: 087_LB-48-5-7

Lab Sample ID: 460-242141-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.6		4.6	4.4	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	1.7		1.5	0.88	ug/Kg	1	✱	8260D	Total/NA

Client Sample ID: 088_LB-48-15-16

Lab Sample ID: 460-242141-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12		5.2	4.9	ug/Kg	1	✱	8260D	Total/NA
Methylene Chloride	2.9		1.7	0.99	ug/Kg	1	✱	8260D	Total/NA

Client Sample ID: 089_LB-47-15-16

Lab Sample ID: 460-242141-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Detection Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 090_HS-1-8-10

Lab Sample ID: 460-242141-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
2-Butanone (MEK)	11		8.7	0.64	ug/Kg	1		✱	8260D	Total/NA
Acetone	50		10	9.9	ug/Kg	1		✱	8260D	Total/NA
Methyl tert-butyl ether	1.3	J	1.7	0.89	ug/Kg	1		✱	8260D	Total/NA
Toluene	3.2		1.7	0.40	ug/Kg	1		✱	8260D	Total/NA

Client Sample ID: 091_HS-1-10-12

Lab Sample ID: 460-242141-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	20		5.9	5.6	ug/Kg	1		✱	8260D	Total/NA

Client Sample ID: 092_LB-27-6-8

Lab Sample ID: 460-242141-10

No Detections.

Client Sample ID: 093_LB-27-15-16

Lab Sample ID: 460-242141-11

No Detections.

Client Sample ID: 094_HS-2-8-10

Lab Sample ID: 460-242141-12

No Detections.

Client Sample ID: 095_HS-2-10-12

Lab Sample ID: 460-242141-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Toluene	0.24	J	0.96	0.22	ug/Kg	1		✱	8260D	Total/NA

Client Sample ID: 096_TB-5

Lab Sample ID: 460-242141-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 083_LB-28_15-16

Lab Sample ID: 460-242141-1

Date Collected: 09/02/21 18:05

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.8

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.88	U	0.88	0.21	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,1-Dichloroethane	0.88	U	0.88	0.18	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,1-Dichloroethene	0.88	U	0.88	0.20	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,2,4-Trimethylbenzene	0.88	U	0.88	0.22	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,2-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,2-Dichloroethane	0.88	U	0.88	0.26	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,3,5-Trimethylbenzene	0.88	U	0.88	0.28	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,3-Dichlorobenzene	0.88	U	0.88	0.32	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,4-Dichlorobenzene	0.88	U	0.88	0.20	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
1,4-Dioxane	18	U	18	8.1	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
2-Butanone (MEK)	4.4	U	4.4	0.32	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Acetone	5.2	J	5.3	5.0	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Benzene	0.88	U	0.88	0.23	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Carbon tetrachloride	0.88	U	0.88	0.34	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Chlorobenzene	0.88	U	0.88	0.16	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Chloroform	0.88	U	0.88	0.86	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
cis-1,2-Dichloroethene	0.88	U	0.88	0.32	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Ethylbenzene	0.88	U	0.88	0.18	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Methyl tert-butyl ether	0.88	U	0.88	0.45	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
n-Butylbenzene	0.88	U	0.88	0.26	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
N-Propylbenzene	0.88	U	0.88	0.15	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
sec-Butylbenzene	0.88	U	0.88	0.25	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
tert-Butylbenzene	0.88	U	0.88	0.24	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Tetrachloroethene	0.88	U	0.88	0.27	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Toluene	0.88	U	0.88	0.21	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
trans-1,2-Dichloroethene	0.88	U	0.88	0.22	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Trichloroethene	0.88	U	0.88	0.28	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Vinyl chloride	0.88	U	0.88	0.48	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1
Xylenes, Total	1.8	U	1.8	0.57	ug/Kg	☆	09/03/21 23:11	09/05/21 09:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 145	09/03/21 23:11	09/05/21 09:49	1
4-Bromofluorobenzene	99		70 - 139	09/03/21 23:11	09/05/21 09:49	1
Dibromofluoromethane (Surr)	108		48 - 150	09/03/21 23:11	09/05/21 09:49	1
Toluene-d8 (Surr)	100		80 - 120	09/03/21 23:11	09/05/21 09:49	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	390	U	390	15	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
2-Methylphenol	390	U	390	15	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
3 & 4 Methylphenol	390	U	390	25	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
Pentachlorophenol	320	U	320	81	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
Naphthalene	390	U	390	6.8	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
Acenaphthylene	390	U	390	4.0	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
Acenaphthene	390	U	390	11	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
Dibenzofuran	390	U	390	5.5	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
Fluorene	390	U	390	5.4	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
Hexachlorobenzene	39	U	39	19	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1
Phenanthrene	390	U	390	6.9	ug/Kg	☆	09/04/21 16:35	09/06/21 00:38	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 083_LB-28_15-16

Lab Sample ID: 460-242141-1

Date Collected: 09/02/21 18:05

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.8

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	390	U	390	12	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Fluoranthene	390	U	390	14	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Pyrene	390	U	390	9.8	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Benzo[a]anthracene	39	U	39	14	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Chrysene	390	U *	390	6.7	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Benzo[b]fluoranthene	39	U	39	10	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Benzo[k]fluoranthene	39	U	39	7.7	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Benzo[a]pyrene	39	U	39	11	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Indeno[1,2,3-cd]pyrene	39	U	39	15	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Dibenz(a,h)anthracene	39	U	39	17	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
Benzo[g,h,i]perylene	390	U	390	12	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1
1,4-Dioxane	39	U	39	34	ug/Kg	✱	09/04/21 16:35	09/06/21 00:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		11 - 104	09/04/21 16:35	09/06/21 00:38	1
Phenol-d5 (Surr)	79		15 - 100	09/04/21 16:35	09/06/21 00:38	1
Terphenyl-d14 (Surr)	30		12 - 126	09/04/21 16:35	09/06/21 00:38	1
2,4,6-Tribromophenol (Surr)	40		10 - 123	09/04/21 16:35	09/06/21 00:38	1
2-Fluorophenol (Surr)	62		10 - 105	09/04/21 16:35	09/06/21 00:38	1
2-Fluorobiphenyl	45		14 - 103	09/04/21 16:35	09/06/21 00:38	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.0	U	8.0	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
4,4'-DDE	8.0	U	8.0	0.94	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
4,4'-DDT	8.0	U	8.0	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Aldrin	8.0	U	8.0	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
alpha-BHC	2.4	U	2.4	0.81	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
beta-BHC	2.4	U	2.4	0.89	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Chlordane (technical)	80	U	80	19	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
delta-BHC	2.4	U	2.4	0.49	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Dieldrin	2.4	U	2.4	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Endosulfan I	8.0	U	8.0	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Endosulfan II	8.0	U	8.0	2.1	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Endosulfan sulfate	8.0	U	8.0	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Endrin	8.0	U	8.0	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Endrin aldehyde	8.0	U	8.0	1.9	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Endrin ketone	8.0	U	8.0	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
gamma-BHC (Lindane)	2.4	U	2.4	0.74	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Heptachlor	8.0	U	8.0	0.94	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Heptachlor epoxide	8.0	U	8.0	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Methoxychlor	8.0	U	8.0	1.8	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
Toxaphene	80	U	80	29	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1
cis-Chlordane	8.0	U	8.0	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 08:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		10 - 150	09/04/21 13:11	09/07/21 08:32	1
DCB Decachlorobiphenyl	91		10 - 150	09/04/21 13:11	09/07/21 08:32	1
Tetrachloro-m-xylene	84		10 - 133	09/04/21 13:11	09/07/21 08:32	1
Tetrachloro-m-xylene	81		10 - 133	09/04/21 13:11	09/07/21 08:32	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 083_LB-28_15-16

Lab Sample ID: 460-242141-1

Date Collected: 09/02/21 18:05

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Aroclor 1221	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Aroclor 1232	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Aroclor 1242	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Aroclor 1248	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Aroclor 1254	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Aroclor 1260	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Aroclor-1262	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Aroclor 1268	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1
Polychlorinated biphenyls, Total	80	U	80	21	ug/Kg	☆	09/04/21 13:08	09/05/21 19:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	146		37 - 150	09/04/21 13:08	09/05/21 19:41	1
DCB Decachlorobiphenyl	151	*	37 - 150	09/04/21 13:08	09/05/21 19:41	1
Tetrachloro-m-xylene	137		54 - 150	09/04/21 13:08	09/05/21 19:41	1
Tetrachloro-m-xylene	130		54 - 150	09/04/21 13:08	09/05/21 19:41	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.1	ug/Kg	☆	09/08/21 20:14	09/09/21 11:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	89		65 - 150	09/08/21 20:14	09/09/21 11:25	1
2,4-Dichlorophenylacetic acid	109		65 - 150	09/08/21 20:14	09/09/21 11:25	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluoroheptanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorooctanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorononanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorodecanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorotridecanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorotetradecanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorobutanesulfonic acid	2.39	U	2.39	0.48	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorohexanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorooctanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
NEtFOSAA	2.39	U	2.39	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
NMeFOSAA	2.39	U	2.39	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluoroheptanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorodecanesulfonic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorooctanesulfonamide	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorobutanoic acid	2.39	U	2.39	0.95	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluoroundecanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluorododecanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
6:2 Fluorotelomer sulfonic acid	2.39	U	2.39	0.72	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
8:2 Fluorotelomer sulfonic acid	3.58	U	3.58	0.72	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1
Perfluoropentanoic acid	0.72	U	0.72	0.24	ug/Kg	☆	09/08/21 08:57	09/08/21 18:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	118		10 - 178	09/08/21 08:57	09/08/21 18:16	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 083_LB-28_15-16

Lab Sample ID: 460-242141-1

Date Collected: 09/02/21 18:05

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.8

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	122		10 - 182	09/08/21 08:57	09/08/21 18:16	1
13C5 PFHxA	99		11 - 138	09/08/21 08:57	09/08/21 18:16	1
13C4 PFHpA	103		15 - 139	09/08/21 08:57	09/08/21 18:16	1
13C8 PFOA	110		21 - 133	09/08/21 08:57	09/08/21 18:16	1
13C9 PFNA	104		15 - 145	09/08/21 08:57	09/08/21 18:16	1
13C6 PFDA	116		21 - 134	09/08/21 08:57	09/08/21 18:16	1
13C7 PFUnA	122		15 - 138	09/08/21 08:57	09/08/21 18:16	1
13C2-PFDoDA	102		28 - 126	09/08/21 08:57	09/08/21 18:16	1
13C2 PFTeDA	101		10 - 138	09/08/21 08:57	09/08/21 18:16	1
13C3 PFBS	121		23 - 130	09/08/21 08:57	09/08/21 18:16	1
13C3 PFHxS	106		24 - 136	09/08/21 08:57	09/08/21 18:16	1
13C8 PFOS	101		31 - 130	09/08/21 08:57	09/08/21 18:16	1
d3-NMeFOSAA	73		10 - 172	09/08/21 08:57	09/08/21 18:16	1
d5-NEtFOSAA	86		10 - 176	09/08/21 08:57	09/08/21 18:16	1
13C8 FOSA	113		25 - 135	09/08/21 08:57	09/08/21 18:16	1
13C4 PFBA	99		12 - 137	09/08/21 08:57	09/08/21 18:16	1
13C5 PFPeA	107		12 - 135	09/08/21 08:57	09/08/21 18:16	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.10	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Arsenic	0.70	J	1.2	0.12	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Barium	38.9		2.3	0.17	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Beryllium	0.21	J	0.47	0.067	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Chromium	11.1	B	2.3	0.20	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Copper	8.2		2.3	0.26	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Manganese	84.8		4.7	0.47	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Nickel	10.3		2.3	0.23	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Lead	3.3		0.70	0.23	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1
Zinc	22.5		9.4	2.7	mg/Kg	✱	09/10/21 07:58	09/13/21 13:09	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0046	mg/Kg	✱	09/07/21 04:13	09/07/21 09:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	11.1		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.3	U	2.3	0.98	mg/Kg	✱	09/13/21 09:29	09/13/21 14:55	1
Cyanide, Total	0.24	U	0.24	0.13	mg/Kg	✱	09/05/21 15:08	09/06/21 19:59	1
Percent Moisture	16.2		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	83.8		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 084_DUP-5

Lab Sample ID: 460-242141-2

Date Collected: 09/02/21 18:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 82.3

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.90	U	0.90	0.21	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,1-Dichloroethane	0.90	U	0.90	0.18	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,1-Dichloroethene	0.90	U	0.90	0.20	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,2,4-Trimethylbenzene	0.90	U	0.90	0.22	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,2-Dichlorobenzene	0.90	U	0.90	0.32	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,2-Dichloroethane	0.90	U	0.90	0.27	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,3,5-Trimethylbenzene	0.90	U	0.90	0.28	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,3-Dichlorobenzene	0.90	U	0.90	0.33	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,4-Dichlorobenzene	0.90	U	0.90	0.20	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
1,4-Dioxane	18	U	18	8.2	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
2-Butanone (MEK)	4.5	U	4.5	0.33	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Acetone	5.4	U	5.4	5.1	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Benzene	0.90	U	0.90	0.23	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Carbon tetrachloride	0.90	U	0.90	0.35	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Chlorobenzene	0.90	U	0.90	0.16	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Chloroform	0.90	U	0.90	0.87	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
cis-1,2-Dichloroethene	0.90	U	0.90	0.32	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Ethylbenzene	0.90	U	0.90	0.18	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Methyl tert-butyl ether	0.90	U	0.90	0.46	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Methylene Chloride	1.8	U	1.8	1.0	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
n-Butylbenzene	0.90	U	0.90	0.26	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
N-Propylbenzene	0.90	U	0.90	0.16	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
sec-Butylbenzene	0.90	U	0.90	0.26	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
tert-Butylbenzene	0.90	U	0.90	0.25	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Tetrachloroethene	0.90	U	0.90	0.27	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Toluene	0.90	U	0.90	0.21	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
trans-1,2-Dichloroethene	0.90	U	0.90	0.22	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Trichloroethene	0.90	U	0.90	0.29	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Vinyl chloride	0.90	U	0.90	0.49	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1
Xylenes, Total	1.8	U	1.8	0.58	ug/Kg	☆	09/03/21 23:12	09/05/21 10:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 145	09/03/21 23:12	09/05/21 10:11	1
4-Bromofluorobenzene	99		70 - 139	09/03/21 23:12	09/05/21 10:11	1
Dibromofluoromethane (Surr)	104		48 - 150	09/03/21 23:12	09/05/21 10:11	1
Toluene-d8 (Surr)	96		80 - 120	09/03/21 23:12	09/05/21 10:11	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	400	U	400	15	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
2-Methylphenol	400	U	400	15	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
3 & 4 Methylphenol	400	U	400	25	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
Pentachlorophenol	320	U	320	82	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
Naphthalene	400	U	400	6.9	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
Acenaphthylene	400	U	400	4.0	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
Acenaphthene	400	U	400	11	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
Dibenzofuran	400	U	400	5.6	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
Fluorene	400	U	400	5.5	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
Hexachlorobenzene	40	U	40	19	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1
Phenanthrene	400	U	400	7.1	ug/Kg	☆	09/04/21 16:35	09/06/21 00:55	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 084_DUP-5

Lab Sample ID: 460-242141-2

Date Collected: 09/02/21 18:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 82.3

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	400	U	400	12	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Fluoranthene	400	U	400	14	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Pyrene	400	U	400	10	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Benzo[a]anthracene	40	U	40	14	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Chrysene	400	U *	400	6.8	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Benzo[b]fluoranthene	40	U	40	10	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Benzo[k]fluoranthene	40	U	40	7.9	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Benzo[a]pyrene	40	U	40	11	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Indeno[1,2,3-cd]pyrene	40	U	40	16	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Dibenz(a,h)anthracene	40	U	40	17	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
Benzo[g,h,i]perylene	400	U	400	12	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1
1,4-Dioxane	40	U	40	35	ug/Kg	✱	09/04/21 16:35	09/06/21 00:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	62		11 - 104	09/04/21 16:35	09/06/21 00:55	1
Phenol-d5 (Surr)	59		15 - 100	09/04/21 16:35	09/06/21 00:55	1
Terphenyl-d14 (Surr)	46		12 - 126	09/04/21 16:35	09/06/21 00:55	1
2,4,6-Tribromophenol (Surr)	30		10 - 123	09/04/21 16:35	09/06/21 00:55	1
2-Fluorophenol (Surr)	45		10 - 105	09/04/21 16:35	09/06/21 00:55	1
2-Fluorobiphenyl	48		14 - 103	09/04/21 16:35	09/06/21 00:55	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.1	U	8.1	1.4	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
4,4'-DDE	8.1	U	8.1	0.96	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
4,4'-DDT	8.1	U	8.1	1.5	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Aldrin	8.1	U	8.1	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
alpha-BHC	2.4	U	2.4	0.83	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
beta-BHC	2.4	U	2.4	0.91	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Chlordane (technical)	81	U	81	20	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
delta-BHC	2.4	U	2.4	0.50	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Dieldrin	2.4	U	2.4	1.1	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Endosulfan I	8.1	U	8.1	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Endosulfan II	8.1	U	8.1	2.1	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Endosulfan sulfate	8.1	U	8.1	1.0	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Endrin	8.1	U	8.1	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Endrin aldehyde	8.1	U	8.1	1.9	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Endrin ketone	8.1	U	8.1	1.6	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
gamma-BHC (Lindane)	2.4	U	2.4	0.75	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Heptachlor	8.1	U	8.1	0.96	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Heptachlor epoxide	8.1	U	8.1	1.2	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Methoxychlor	8.1	U	8.1	1.9	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
Toxaphene	81	U	81	29	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1
cis-Chlordane	8.1	U	8.1	1.3	ug/Kg	✱	09/04/21 13:11	09/07/21 08:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	106		10 - 150	09/04/21 13:11	09/07/21 08:44	1
DCB Decachlorobiphenyl	106		10 - 150	09/04/21 13:11	09/07/21 08:44	1
Tetrachloro-m-xylene	87		10 - 133	09/04/21 13:11	09/07/21 08:44	1
Tetrachloro-m-xylene	86		10 - 133	09/04/21 13:11	09/07/21 08:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 084_DUP-5

Lab Sample ID: 460-242141-2

Date Collected: 09/02/21 18:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 82.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Aroclor 1221	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Aroclor 1232	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Aroclor 1242	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Aroclor 1248	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Aroclor 1254	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Aroclor 1260	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Aroclor-1262	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Aroclor 1268	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1
Polychlorinated biphenyls, Total	81	U	81	22	ug/Kg	☆	09/04/21 13:08	09/05/21 20:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	144		37 - 150	09/04/21 13:08	09/05/21 20:03	1
DCB Decachlorobiphenyl	151	*	37 - 150	09/04/21 13:08	09/05/21 20:03	1
Tetrachloro-m-xylene	128		54 - 150	09/04/21 13:08	09/05/21 20:03	1
Tetrachloro-m-xylene	126		54 - 150	09/04/21 13:08	09/05/21 20:03	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	40	U	40	4.2	ug/Kg	☆	09/08/21 20:14	09/09/21 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	94		65 - 150	09/08/21 20:14	09/09/21 14:42	1
2,4-Dichlorophenylacetic acid	103		65 - 150	09/08/21 20:14	09/09/21 14:42	1

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluoroheptanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorooctanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorononanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorodecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorotridecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorotetradecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorobutanesulfonic acid	2.23	U	2.23	0.45	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorohexanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorooctanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
NEtFOSAA	2.23	U	2.23	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
NMeFOSAA	2.23	U	2.23	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluoroheptanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorodecanesulfonic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorooctanesulfonamide	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorobutanoic acid	2.23	U	2.23	0.89	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluoroundecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluorododecanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
6:2 Fluorotelomer sulfonic acid	2.23	U	2.23	0.67	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
8:2 Fluorotelomer sulfonic acid	3.34	U	3.34	0.67	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1
Perfluoropentanoic acid	0.67	U	0.67	0.22	ug/Kg	☆	09/08/21 08:57	09/08/21 18:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	93		10 - 178	09/08/21 08:57	09/08/21 18:27	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 084_DUP-5

Lab Sample ID: 460-242141-2

Date Collected: 09/02/21 18:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 82.3

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	119		10 - 182	09/08/21 08:57	09/08/21 18:27	1
13C5 PFHxA	99		11 - 138	09/08/21 08:57	09/08/21 18:27	1
13C4 PFHpA	103		15 - 139	09/08/21 08:57	09/08/21 18:27	1
13C8 PFOA	108		21 - 133	09/08/21 08:57	09/08/21 18:27	1
13C9 PFNA	109		15 - 145	09/08/21 08:57	09/08/21 18:27	1
13C6 PFDA	102		21 - 134	09/08/21 08:57	09/08/21 18:27	1
13C7 PFUnA	100		15 - 138	09/08/21 08:57	09/08/21 18:27	1
13C2-PFDoDA	93		28 - 126	09/08/21 08:57	09/08/21 18:27	1
13C2 PFTeDA	92		10 - 138	09/08/21 08:57	09/08/21 18:27	1
13C3 PFBS	115		23 - 130	09/08/21 08:57	09/08/21 18:27	1
13C3 PFHxS	105		24 - 136	09/08/21 08:57	09/08/21 18:27	1
13C8 PFOS	104		31 - 130	09/08/21 08:57	09/08/21 18:27	1
d3-NMeFOSAA	57		10 - 172	09/08/21 08:57	09/08/21 18:27	1
d5-NEtFOSAA	67		10 - 176	09/08/21 08:57	09/08/21 18:27	1
13C8 FOSA	98		25 - 135	09/08/21 08:57	09/08/21 18:27	1
13C4 PFBA	98		12 - 137	09/08/21 08:57	09/08/21 18:27	1
13C5 PFPeA	102		12 - 135	09/08/21 08:57	09/08/21 18:27	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.2	U	1.2	0.10	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Arsenic	1.0	J	1.2	0.12	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Barium	50.6		2.4	0.17	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Beryllium	0.31	J	0.47	0.067	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Cadmium	1.2	U	1.2	0.13	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Chromium	12.8	B	2.4	0.21	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Copper	11.2		2.4	0.26	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Manganese	117		4.7	0.48	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Nickel	12.9		2.4	0.23	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Lead	5.6		0.71	0.24	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Selenium	1.5	U	1.5	0.14	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1
Zinc	32.9		9.4	2.7	mg/Kg	✱	09/10/21 07:58	09/11/21 00:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0048	mg/Kg	✱	09/07/21 04:13	09/07/21 09:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	12.8		2.0	2.0	mg/Kg			09/07/21 06:53	1
Cr (VI)	2.5	U	2.5	1.1	mg/Kg	✱	09/13/21 09:29	09/13/21 14:55	1
Cyanide, Total	0.26	U	0.26	0.14	mg/Kg	✱	09/05/21 15:08	09/06/21 20:03	1
Percent Moisture	17.7		1.0	1.0	%			09/07/21 10:00	1
Percent Solids	82.3		1.0	1.0	%			09/07/21 10:00	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 085_LB-49-8-10

Lab Sample ID: 460-242141-3

Date Collected: 09/02/21 17:00

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.9

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.98	U	0.98	0.23	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,1-Dichloroethane	0.98	U	0.98	0.20	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,1-Dichloroethene	0.98	U	0.98	0.22	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.24	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,2-Dichlorobenzene	0.98	U	0.98	0.35	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,2-Dichloroethane	0.98	U	0.98	0.29	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.31	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,3-Dichlorobenzene	0.98	U	0.98	0.36	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,4-Dichlorobenzene	0.98	U	0.98	0.22	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
1,4-Dioxane	20	U	20	9.0	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
2-Butanone (MEK)	4.9	U	4.9	0.36	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Acetone	9.7		5.9	5.6	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Benzene	0.98	U	0.98	0.25	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Carbon tetrachloride	0.98	U	0.98	0.38	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Chlorobenzene	0.98	U	0.98	0.17	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Chloroform	0.98	U	0.98	0.95	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
cis-1,2-Dichloroethene	0.98	U	0.98	0.35	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Ethylbenzene	0.98	U	0.98	0.19	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Methyl tert-butyl ether	0.98	U	0.98	0.50	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
n-Butylbenzene	0.98	U	0.98	0.29	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
N-Propylbenzene	0.98	U	0.98	0.17	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
sec-Butylbenzene	0.98	U	0.98	0.28	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
tert-Butylbenzene	0.98	U	0.98	0.27	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Tetrachloroethene	0.98	U	0.98	0.30	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Toluene	0.98	U	0.98	0.23	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
trans-1,2-Dichloroethene	0.98	U	0.98	0.24	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Trichloroethene	0.98	U	0.98	0.31	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Vinyl chloride	0.98	U	0.98	0.53	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1
Xylenes, Total	2.0	U	2.0	0.63	ug/Kg	☆	09/03/21 23:15	09/09/21 13:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		77 - 145	09/03/21 23:15	09/09/21 13:43	1
4-Bromofluorobenzene	98		70 - 139	09/03/21 23:15	09/09/21 13:43	1
Dibromofluoromethane (Surr)	118		48 - 150	09/03/21 23:15	09/09/21 13:43	1
Toluene-d8 (Surr)	97		80 - 120	09/03/21 23:15	09/09/21 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.1		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	83.9		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 086_LB-49-15-16

Lab Sample ID: 460-242141-4

Date Collected: 09/02/21 17:05

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.3

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.93	U	0.93	0.22	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
1,1-Dichloroethane	0.93	U	0.93	0.19	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 086_LB-49-15-16

Lab Sample ID: 460-242141-4

Date Collected: 09/02/21 17:05

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.3

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.93	U	0.93	0.21	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
1,2,4-Trimethylbenzene	0.93	U	0.93	0.23	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
1,2-Dichlorobenzene	0.93	U	0.93	0.34	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
1,2-Dichloroethane	0.93	U	0.93	0.28	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
1,3,5-Trimethylbenzene	0.93	U	0.93	0.29	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
1,3-Dichlorobenzene	0.93	U	0.93	0.34	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
1,4-Dichlorobenzene	0.93	U	0.93	0.21	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
1,4-Dioxane	19	U	19	8.6	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
2-Butanone (MEK)	4.7	U	4.7	0.34	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Acetone	11		5.6	5.3	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Benzene	0.93	U	0.93	0.24	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Carbon tetrachloride	0.93	U	0.93	0.36	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Chlorobenzene	0.93	U	0.93	0.17	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Chloroform	0.93	U	0.93	0.91	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
cis-1,2-Dichloroethene	0.93	U	0.93	0.33	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Ethylbenzene	0.93	U	0.93	0.19	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Methyl tert-butyl ether	0.93	U	0.93	0.48	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Methylene Chloride	3.9		1.9	1.1	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
n-Butylbenzene	0.93	U	0.93	0.27	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
N-Propylbenzene	0.93	U	0.93	0.16	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
sec-Butylbenzene	0.93	U	0.93	0.27	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
tert-Butylbenzene	0.93	U	0.93	0.26	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Tetrachloroethene	0.93	U	0.93	0.28	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Toluene	0.93	U	0.93	0.22	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
trans-1,2-Dichloroethene	0.93	U	0.93	0.23	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Trichloroethene	0.93	U	0.93	0.30	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Vinyl chloride	0.93	U	0.93	0.51	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1
Xylenes, Total	1.9	U	1.9	0.60	ug/Kg	☆	09/03/21 23:16	09/05/21 10:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 145	09/03/21 23:16	09/05/21 10:33	1
4-Bromofluorobenzene	106		70 - 139	09/03/21 23:16	09/05/21 10:33	1
Dibromofluoromethane (Surr)	109		48 - 150	09/03/21 23:16	09/05/21 10:33	1
Toluene-d8 (Surr)	101		80 - 120	09/03/21 23:16	09/05/21 10:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.7		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	83.3		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 087_LB-48-5-7

Lab Sample ID: 460-242141-5

Date Collected: 09/02/21 17:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.77	U	0.77	0.18	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
1,1-Dichloroethane	0.77	U	0.77	0.16	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
1,1-Dichloroethene	0.77	U	0.77	0.17	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
1,2,4-Trimethylbenzene	0.77	U	0.77	0.19	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 087_LB-48-5-7

Lab Sample ID: 460-242141-5

Date Collected: 09/02/21 17:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.77	U	0.77	0.28	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
1,2-Dichloroethane	0.77	U	0.77	0.23	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
1,3,5-Trimethylbenzene	0.77	U	0.77	0.24	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
1,3-Dichlorobenzene	0.77	U	0.77	0.28	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
1,4-Dichlorobenzene	0.77	U	0.77	0.17	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
1,4-Dioxane	15	U	15	7.1	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
2-Butanone (MEK)	3.8	U	3.8	0.28	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Acetone	5.6		4.6	4.4	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Benzene	0.77	U	0.77	0.20	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Carbon tetrachloride	0.77	U	0.77	0.30	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Chlorobenzene	0.77	U	0.77	0.14	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Chloroform	0.77	U	0.77	0.75	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
cis-1,2-Dichloroethene	0.77	U	0.77	0.28	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Ethylbenzene	0.77	U	0.77	0.15	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Methyl tert-butyl ether	0.77	U	0.77	0.39	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Methylene Chloride	1.7		1.5	0.88	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
n-Butylbenzene	0.77	U	0.77	0.23	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
N-Propylbenzene	0.77	U	0.77	0.13	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
sec-Butylbenzene	0.77	U	0.77	0.22	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
tert-Butylbenzene	0.77	U	0.77	0.21	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Tetrachloroethene	0.77	U	0.77	0.23	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Toluene	0.77	U	0.77	0.18	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
trans-1,2-Dichloroethene	0.77	U	0.77	0.19	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Trichloroethene	0.77	U	0.77	0.25	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Vinyl chloride	0.77	U	0.77	0.42	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1
Xylenes, Total	1.5	U	1.5	0.49	ug/Kg	☆	09/03/21 23:18	09/05/21 10:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 145	09/03/21 23:18	09/05/21 10:54	1
4-Bromofluorobenzene	110		70 - 139	09/03/21 23:18	09/05/21 10:54	1
Dibromofluoromethane (Surr)	112		48 - 150	09/03/21 23:18	09/05/21 10:54	1
Toluene-d8 (Surr)	104		80 - 120	09/03/21 23:18	09/05/21 10:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.9		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	83.1		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 088_LB-48-15-16

Lab Sample ID: 460-242141-6

Date Collected: 09/02/21 17:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 84.2

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.86	U	0.86	0.20	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
1,1-Dichloroethane	0.86	U	0.86	0.18	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
1,1-Dichloroethene	0.86	U	0.86	0.19	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
1,2,4-Trimethylbenzene	0.86	U	0.86	0.21	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
1,2-Dichlorobenzene	0.86	U	0.86	0.31	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
1,2-Dichloroethane	0.86	U	0.86	0.26	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 088_LB-48-15-16

Lab Sample ID: 460-242141-6

Date Collected: 09/02/21 17:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 84.2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	0.86	U	0.86	0.27	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
1,3-Dichlorobenzene	0.86	U	0.86	0.31	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
1,4-Dichlorobenzene	0.86	U	0.86	0.19	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
1,4-Dioxane	17	U	17	7.9	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
2-Butanone (MEK)	4.3	U	4.3	0.32	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Acetone	12		5.2	4.9	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Benzene	0.86	U	0.86	0.22	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Carbon tetrachloride	0.86	U	0.86	0.33	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Chlorobenzene	0.86	U	0.86	0.15	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Chloroform	0.86	U	0.86	0.84	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
cis-1,2-Dichloroethene	0.86	U	0.86	0.31	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Ethylbenzene	0.86	U	0.86	0.17	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Methyl tert-butyl ether	0.86	U	0.86	0.44	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Methylene Chloride	2.9		1.7	0.99	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
n-Butylbenzene	0.86	U	0.86	0.25	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
N-Propylbenzene	0.86	U	0.86	0.15	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
sec-Butylbenzene	0.86	U	0.86	0.25	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
tert-Butylbenzene	0.86	U	0.86	0.24	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Tetrachloroethene	0.86	U	0.86	0.26	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Toluene	0.86	U	0.86	0.20	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
trans-1,2-Dichloroethene	0.86	U	0.86	0.21	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Trichloroethene	0.86	U	0.86	0.28	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Vinyl chloride	0.86	U	0.86	0.47	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1
Xylenes, Total	1.7	U	1.7	0.55	ug/Kg	☆	09/03/21 23:19	09/05/21 11:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 145	09/03/21 23:19	09/05/21 11:16	1
4-Bromofluorobenzene	99		70 - 139	09/03/21 23:19	09/05/21 11:16	1
Dibromofluoromethane (Surr)	107		48 - 150	09/03/21 23:19	09/05/21 11:16	1
Toluene-d8 (Surr)	95		80 - 120	09/03/21 23:19	09/05/21 11:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.8		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	84.2		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 089_LB-47-15-16

Lab Sample ID: 460-242141-7

Date Collected: 09/02/21 17:15

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.96	U	0.96	0.22	ug/Kg	☆	09/03/21 23:21	09/05/21 11:37	1
1,1-Dichloroethane	0.96	U	0.96	0.20	ug/Kg	☆	09/03/21 23:21	09/05/21 11:37	1
1,1-Dichloroethene	0.96	U	0.96	0.22	ug/Kg	☆	09/03/21 23:21	09/05/21 11:37	1
1,2,4-Trimethylbenzene	0.96	U	0.96	0.24	ug/Kg	☆	09/03/21 23:21	09/05/21 11:37	1
1,2-Dichlorobenzene	0.96	U	0.96	0.35	ug/Kg	☆	09/03/21 23:21	09/05/21 11:37	1
1,2-Dichloroethane	0.96	U	0.96	0.28	ug/Kg	☆	09/03/21 23:21	09/05/21 11:37	1
1,3,5-Trimethylbenzene	0.96	U	0.96	0.30	ug/Kg	☆	09/03/21 23:21	09/05/21 11:37	1
1,3-Dichlorobenzene	0.96	U	0.96	0.35	ug/Kg	☆	09/03/21 23:21	09/05/21 11:37	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 089_LB-47-15-16

Lab Sample ID: 460-242141-7

Date Collected: 09/02/21 17:15

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.5

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.96	U	0.96	0.22	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
1,4-Dioxane	19	U	19	8.8	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
2-Butanone (MEK)	4.8	U	4.8	0.35	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Acetone	5.8	U	5.8	5.5	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Benzene	0.96	U	0.96	0.25	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Carbon tetrachloride	0.96	U	0.96	0.37	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Chlorobenzene	0.96	U	0.96	0.17	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Chloroform	0.96	U	0.96	0.93	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
cis-1,2-Dichloroethene	0.96	U	0.96	0.34	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Ethylbenzene	0.96	U	0.96	0.19	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Methyl tert-butyl ether	0.96	U	0.96	0.49	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
n-Butylbenzene	0.96	U	0.96	0.28	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
N-Propylbenzene	0.96	U	0.96	0.17	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
sec-Butylbenzene	0.96	U	0.96	0.28	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
tert-Butylbenzene	0.96	U	0.96	0.27	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Tetrachloroethene	0.96	U	0.96	0.29	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Toluene	0.96	U	0.96	0.22	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
trans-1,2-Dichloroethene	0.96	U	0.96	0.24	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Trichloroethene	0.96	U	0.96	0.31	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Vinyl chloride	0.96	U	0.96	0.52	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Xylenes, Total	1.9	U	1.9	0.62	ug/Kg	✱	09/03/21 23:21	09/05/21 11:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 145				09/03/21 23:21	09/05/21 11:37	1
4-Bromofluorobenzene	103		70 - 139				09/03/21 23:21	09/05/21 11:37	1
Dibromofluoromethane (Surr)	115		48 - 150				09/03/21 23:21	09/05/21 11:37	1
Toluene-d8 (Surr)	104		80 - 120				09/03/21 23:21	09/05/21 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.5		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	83.5		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 090_HS-1-8-10

Lab Sample ID: 460-242141-8

Date Collected: 09/02/21 17:25

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 71.3

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.7	U	1.7	0.40	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,1-Dichloroethane	1.7	U	1.7	0.36	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,1-Dichloroethene	1.7	U	1.7	0.39	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,2,4-Trimethylbenzene	1.7	U	1.7	0.43	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,2-Dichlorobenzene	1.7	U	1.7	0.62	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,2-Dichloroethane	1.7	U	1.7	0.51	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,3,5-Trimethylbenzene	1.7	U	1.7	0.54	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,3-Dichlorobenzene	1.7	U	1.7	0.63	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,4-Dichlorobenzene	1.7	U	1.7	0.39	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1
1,4-Dioxane	35	U	35	16	ug/Kg	✱	09/03/21 23:27	09/07/21 07:44	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 090_HS-1-8-10

Lab Sample ID: 460-242141-8

Date Collected: 09/02/21 17:25

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 71.3

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	11		8.7	0.64	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Acetone	50		10	9.9	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Benzene	1.7	U	1.7	0.45	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Carbon tetrachloride	1.7	U	1.7	0.67	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Chlorobenzene	1.7	U	1.7	0.31	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Chloroform	1.7	U	1.7	1.7	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
cis-1,2-Dichloroethene	1.7	U	1.7	0.62	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Ethylbenzene	1.7	U	1.7	0.34	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Methyl tert-butyl ether	1.3	J	1.7	0.89	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Methylene Chloride	3.5	U	3.5	2.0	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
n-Butylbenzene	1.7	U	1.7	0.51	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
N-Propylbenzene	1.7	U	1.7	0.30	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
sec-Butylbenzene	1.7	U	1.7	0.50	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
tert-Butylbenzene	1.7	U	1.7	0.48	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Tetrachloroethene	1.7	U	1.7	0.53	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Toluene	3.2		1.7	0.40	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
trans-1,2-Dichloroethene	1.7	U	1.7	0.43	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Trichloroethene	1.7	U	1.7	0.56	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Vinyl chloride	1.7	U	1.7	0.94	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1
Xylenes, Total	3.5	U	3.5	1.1	ug/Kg	☆	09/03/21 23:27	09/07/21 07:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 145	09/03/21 23:27	09/07/21 07:44	1
4-Bromofluorobenzene	102		70 - 139	09/03/21 23:27	09/07/21 07:44	1
Dibromofluoromethane (Surr)	114		48 - 150	09/03/21 23:27	09/07/21 07:44	1
Toluene-d8 (Surr)	98		80 - 120	09/03/21 23:27	09/07/21 07:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28.7		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	71.3		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 091_HS-1-10-12

Lab Sample ID: 460-242141-9

Date Collected: 09/02/21 17:30

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 81.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.98	U	0.98	0.23	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,1-Dichloroethane	0.98	U	0.98	0.20	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,1-Dichloroethene	0.98	U	0.98	0.22	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.24	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,2-Dichlorobenzene	0.98	U	0.98	0.35	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,2-Dichloroethane	0.98	U	0.98	0.29	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.31	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,3-Dichlorobenzene	0.98	U	0.98	0.36	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,4-Dichlorobenzene	0.98	U	0.98	0.22	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
1,4-Dioxane	20	U *	20	9.0	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
2-Butanone (MEK)	4.9	U	4.9	0.36	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Acetone	20		5.9	5.6	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 091_HS-1-10-12

Lab Sample ID: 460-242141-9

Date Collected: 09/02/21 17:30

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 81.5

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.98	U	0.98	0.25	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Carbon tetrachloride	0.98	U	0.98	0.38	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Chlorobenzene	0.98	U	0.98	0.17	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Chloroform	0.98	U	0.98	0.95	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
cis-1,2-Dichloroethene	0.98	U	0.98	0.35	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Ethylbenzene	0.98	U	0.98	0.19	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Methyl tert-butyl ether	0.98	U	0.98	0.50	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
n-Butylbenzene	0.98	U	0.98	0.29	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
N-Propylbenzene	0.98	U	0.98	0.17	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
sec-Butylbenzene	0.98	U	0.98	0.28	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
tert-Butylbenzene	0.98	U	0.98	0.27	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Tetrachloroethene	0.98	U	0.98	0.30	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Toluene	0.98	U	0.98	0.23	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
trans-1,2-Dichloroethene	0.98	U	0.98	0.24	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Trichloroethene	0.98	U	0.98	0.31	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Vinyl chloride	0.98	U	0.98	0.53	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1
Xylenes, Total	2.0	U	2.0	0.63	ug/Kg	☆	09/03/21 23:28	09/05/21 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		77 - 145	09/03/21 23:28	09/05/21 12:20	1
4-Bromofluorobenzene	114		70 - 139	09/03/21 23:28	09/05/21 12:20	1
Dibromofluoromethane (Surr)	126		48 - 150	09/03/21 23:28	09/05/21 12:20	1
Toluene-d8 (Surr)	110		80 - 120	09/03/21 23:28	09/05/21 12:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.5		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	81.5		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 092_LB-27-6-8

Lab Sample ID: 460-242141-10

Date Collected: 09/02/21 17:30

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 79.0

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.94	U	0.94	0.22	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,1-Dichloroethane	0.94	U	0.94	0.19	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,1-Dichloroethene	0.94	U	0.94	0.21	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,2,4-Trimethylbenzene	0.94	U	0.94	0.23	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,2-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,2-Dichloroethane	0.94	U	0.94	0.28	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,3,5-Trimethylbenzene	0.94	U	0.94	0.30	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,3-Dichlorobenzene	0.94	U	0.94	0.34	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,4-Dichlorobenzene	0.94	U	0.94	0.21	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
1,4-Dioxane	19	U	19	8.6	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
2-Butanone (MEK)	4.7	U	4.7	0.35	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Acetone	5.6	U	5.6	5.4	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Benzene	0.94	U	0.94	0.24	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Carbon tetrachloride	0.94	U	0.94	0.36	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 092_LB-27-6-8

Lab Sample ID: 460-242141-10

Date Collected: 09/02/21 17:30

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 79.0

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.94	U	0.94	0.17	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Chloroform	0.94	U	0.94	0.91	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
cis-1,2-Dichloroethene	0.94	U	0.94	0.34	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Ethylbenzene	0.94	U	0.94	0.19	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Methyl tert-butyl ether	0.94	U	0.94	0.48	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
n-Butylbenzene	0.94	U	0.94	0.28	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
N-Propylbenzene	0.94	U	0.94	0.16	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
sec-Butylbenzene	0.94	U	0.94	0.27	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
tert-Butylbenzene	0.94	U	0.94	0.26	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Tetrachloroethene	0.94	U	0.94	0.29	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Toluene	0.94	U	0.94	0.22	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
trans-1,2-Dichloroethene	0.94	U	0.94	0.23	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Trichloroethene	0.94	U	0.94	0.30	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Vinyl chloride	0.94	U	0.94	0.51	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1
Xylenes, Total	1.9	U	1.9	0.60	ug/Kg	☆	09/03/21 23:30	09/05/21 12:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		77 - 145	09/03/21 23:30	09/05/21 12:41	1
4-Bromofluorobenzene	110		70 - 139	09/03/21 23:30	09/05/21 12:41	1
Dibromofluoromethane (Surr)	125		48 - 150	09/03/21 23:30	09/05/21 12:41	1
Toluene-d8 (Surr)	104		80 - 120	09/03/21 23:30	09/05/21 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.0		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	79.0		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 093_LB-27-15-16

Lab Sample ID: 460-242141-11

Date Collected: 09/02/21 17:35

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 84.4

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.98	U	0.98	0.23	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,1-Dichloroethane	0.98	U	0.98	0.20	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,1-Dichloroethene	0.98	U	0.98	0.22	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.24	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,2-Dichlorobenzene	0.98	U	0.98	0.36	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,2-Dichloroethane	0.98	U	0.98	0.29	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.31	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,3-Dichlorobenzene	0.98	U	0.98	0.36	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,4-Dichlorobenzene	0.98	U	0.98	0.22	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
1,4-Dioxane	20	U	20	9.0	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
2-Butanone (MEK)	4.9	U	4.9	0.36	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
Acetone	5.9	U	5.9	5.6	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
Benzene	0.98	U	0.98	0.25	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
Carbon tetrachloride	0.98	U	0.98	0.38	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
Chlorobenzene	0.98	U	0.98	0.17	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1
Chloroform	0.98	U	0.98	0.95	ug/Kg	☆	09/03/21 23:33	09/07/21 08:06	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 093_LB-27-15-16

Lab Sample ID: 460-242141-11

Date Collected: 09/02/21 17:35

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 84.4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.98	U	0.98	0.35	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
Ethylbenzene	0.98	U	0.98	0.20	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
Methyl tert-butyl ether	0.98	U	0.98	0.50	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
n-Butylbenzene	0.98	U	0.98	0.29	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
N-Propylbenzene	0.98	U	0.98	0.17	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
sec-Butylbenzene	0.98	U	0.98	0.28	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
tert-Butylbenzene	0.98	U	0.98	0.27	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
Tetrachloroethene	0.98	U	0.98	0.30	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
Toluene	0.98	U	0.98	0.23	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
trans-1,2-Dichloroethene	0.98	U	0.98	0.24	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
Trichloroethene	0.98	U	0.98	0.32	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
Vinyl chloride	0.98	U	0.98	0.54	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1
Xylenes, Total	2.0	U	2.0	0.63	ug/Kg	✱	09/03/21 23:33	09/07/21 08:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 145	09/03/21 23:33	09/07/21 08:06	1
4-Bromofluorobenzene	93		70 - 139	09/03/21 23:33	09/07/21 08:06	1
Dibromofluoromethane (Surr)	103		48 - 150	09/03/21 23:33	09/07/21 08:06	1
Toluene-d8 (Surr)	93		80 - 120	09/03/21 23:33	09/07/21 08:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.6		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	84.4		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 094_HS-2-8-10

Lab Sample ID: 460-242141-12

Date Collected: 09/02/21 17:35

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 81.6

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.98	U	0.98	0.23	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,1-Dichloroethane	0.98	U	0.98	0.20	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,1-Dichloroethene	0.98	U	0.98	0.22	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.24	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,2-Dichlorobenzene	0.98	U	0.98	0.35	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,2-Dichloroethane	0.98	U	0.98	0.29	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.31	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,3-Dichlorobenzene	0.98	U	0.98	0.36	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,4-Dichlorobenzene	0.98	U	0.98	0.22	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
1,4-Dioxane	20	U *	20	9.0	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
2-Butanone (MEK)	4.9	U	4.9	0.36	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
Acetone	5.9	U	5.9	5.6	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
Benzene	0.98	U	0.98	0.25	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
Carbon tetrachloride	0.98	U	0.98	0.38	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
Chlorobenzene	0.98	U	0.98	0.17	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
Chloroform	0.98	U	0.98	0.95	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
cis-1,2-Dichloroethene	0.98	U	0.98	0.35	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1
Ethylbenzene	0.98	U	0.98	0.19	ug/Kg	✱	09/03/21 23:37	09/05/21 13:24	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 094_HS-2-8-10

Lab Sample ID: 460-242141-12

Date Collected: 09/02/21 17:35

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 81.6

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.98	U	0.98	0.50	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
n-Butylbenzene	0.98	U	0.98	0.29	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
N-Propylbenzene	0.98	U	0.98	0.17	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
sec-Butylbenzene	0.98	U	0.98	0.28	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
tert-Butylbenzene	0.98	U	0.98	0.27	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
Tetrachloroethene	0.98	U	0.98	0.30	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
Toluene	0.98	U	0.98	0.23	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
trans-1,2-Dichloroethene	0.98	U	0.98	0.24	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
Trichloroethene	0.98	U	0.98	0.31	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
Vinyl chloride	0.98	U	0.98	0.53	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1
Xylenes, Total	2.0	U	2.0	0.63	ug/Kg	☆	09/03/21 23:37	09/05/21 13:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	127		77 - 145	09/03/21 23:37	09/05/21 13:24	1
4-Bromofluorobenzene	120		70 - 139	09/03/21 23:37	09/05/21 13:24	1
Dibromofluoromethane (Surr)	129		48 - 150	09/03/21 23:37	09/05/21 13:24	1
Toluene-d8 (Surr)	112		80 - 120	09/03/21 23:37	09/05/21 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.4		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	81.6		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 095_HS-2-10-12

Lab Sample ID: 460-242141-13

Date Collected: 09/02/21 17:40

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 84.5

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.96	U	0.96	0.22	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,1-Dichloroethane	0.96	U	0.96	0.20	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,1-Dichloroethene	0.96	U	0.96	0.22	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,2,4-Trimethylbenzene	0.96	U	0.96	0.24	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,2-Dichlorobenzene	0.96	U	0.96	0.35	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,2-Dichloroethane	0.96	U	0.96	0.28	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,3,5-Trimethylbenzene	0.96	U	0.96	0.30	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,3-Dichlorobenzene	0.96	U	0.96	0.35	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,4-Dichlorobenzene	0.96	U	0.96	0.22	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
1,4-Dioxane	19	U	19	8.8	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
2-Butanone (MEK)	4.8	U	4.8	0.35	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Acetone	5.7	U	5.7	5.5	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Benzene	0.96	U	0.96	0.25	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Carbon tetrachloride	0.96	U	0.96	0.37	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Chlorobenzene	0.96	U	0.96	0.17	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Chloroform	0.96	U	0.96	0.93	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
cis-1,2-Dichloroethene	0.96	U	0.96	0.34	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Ethylbenzene	0.96	U	0.96	0.19	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Methyl tert-butyl ether	0.96	U	0.96	0.49	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Methylene Chloride	1.9	U	1.9	1.1	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 095_HS-2-10-12

Lab Sample ID: 460-242141-13

Date Collected: 09/02/21 17:40

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 84.5

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	0.96	U	0.96	0.28	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
N-Propylbenzene	0.96	U	0.96	0.17	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
sec-Butylbenzene	0.96	U	0.96	0.28	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
tert-Butylbenzene	0.96	U	0.96	0.26	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Tetrachloroethene	0.96	U	0.96	0.29	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Toluene	0.24	J	0.96	0.22	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
trans-1,2-Dichloroethene	0.96	U	0.96	0.24	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Trichloroethene	0.96	U	0.96	0.31	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Vinyl chloride	0.96	U	0.96	0.52	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1
Xylenes, Total	1.9	U	1.9	0.61	ug/Kg	☆	09/03/21 23:39	09/05/21 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 145	09/03/21 23:39	09/05/21 13:45	1
4-Bromofluorobenzene	96		70 - 139	09/03/21 23:39	09/05/21 13:45	1
Dibromofluoromethane (Surr)	108		48 - 150	09/03/21 23:39	09/05/21 13:45	1
Toluene-d8 (Surr)	95		80 - 120	09/03/21 23:39	09/05/21 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.5		1.0	1.0	%			09/07/21 14:34	1
Percent Solids	84.5		1.0	1.0	%			09/07/21 14:34	1

Client Sample ID: 096_TB-5

Lab Sample ID: 460-242141-14

Date Collected: 09/02/21 00:00

Matrix: Water

Date Received: 09/03/21 08:51

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/08/21 16:10	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/08/21 16:10	1
Acetone	5.0	U	5.0	4.4	ug/L			09/08/21 16:10	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/08/21 16:10	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/08/21 16:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/08/21 16:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/08/21 16:10	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/08/21 16:10	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/08/21 16:10	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/08/21 16:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/08/21 16:10	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/08/21 16:10	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/08/21 16:10	1
Benzene	1.0	U	1.0	0.20	ug/L			09/08/21 16:10	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/08/21 16:10	1
Toluene	1.0	U	1.0	0.38	ug/L			09/08/21 16:10	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/08/21 16:10	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/08/21 16:10	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/08/21 16:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/08/21 16:10	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/08/21 16:10	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/08/21 16:10	1

Eurofins Edison

Client Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 096_TB-5

Lab Sample ID: 460-242141-14

Date Collected: 09/02/21 00:00

Matrix: Water

Date Received: 09/03/21 08:51

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/08/21 16:10	1
1,4-Dioxane	50	U	50	28	ug/L			09/08/21 16:10	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/08/21 16:10	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/08/21 16:10	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/08/21 16:10	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/08/21 16:10	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/08/21 16:10	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/08/21 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		75 - 123					09/08/21 16:10	1
Toluene-d8 (Surr)	94		80 - 120					09/08/21 16:10	1
4-Bromofluorobenzene	111		76 - 120					09/08/21 16:10	1
Dibromofluoromethane (Surr)	118		77 - 124					09/08/21 16:10	1

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-145)	BFB (70-139)	DBFM (48-150)	TOL (80-120)
460-242141-1	083_LB-28_15-16	107	99	108	100
460-242141-2	084_DUP-5	105	99	104	96
460-242141-3	085_LB-49-8-10	117	98	118	97
460-242141-4	086_LB-49-15-16	112	106	109	101
460-242141-5	087_LB-48-5-7	110	110	112	104
460-242141-6	088_LB-48-15-16	104	99	107	95
460-242141-7	089_LB-47-15-16	118	103	115	104
460-242141-7 MS	089_LB-47-15-16	111	117	120	121 *
460-242141-7 MSD	089_LB-47-15-16	98	100	101	103
460-242141-8	090_HS-1-8-10	118	102	114	98
460-242141-9	091_HS-1-10-12	129	114	126	110
460-242141-10	092_LB-27-6-8	125	110	125	104
460-242141-11	093_LB-27-15-16	102	93	103	93
460-242141-11 MS	093_LB-27-15-16	100	105	108	104
460-242141-11 MSD	093_LB-27-15-16	96	101	100	101
460-242141-12	094_HS-2-8-10	127	120	129	112
460-242141-13	095_HS-2-10-12	108	96	108	95
LCS 460-799878/4	Lab Control Sample	107	106	103	105
LCS 460-799950/3	Lab Control Sample	107	99	104	102
LCS 460-800337/3	Lab Control Sample	103	95	102	99
LCSD 460-799878/5	Lab Control Sample Dup	102	99	101	101
LCSD 460-799950/4	Lab Control Sample Dup	101	96	102	102
LCSD 460-800337/4	Lab Control Sample Dup	107	102	107	104
MB 460-799878/8	Method Blank	114	105	113	102
MB 460-799950/7	Method Blank	106	101	109	101
MB 460-800337/6	Method Blank	114	98	111	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-123)	TOL (80-120)	BFB (76-120)	DBFM (77-124)
460-242141-14	096_TB-5	105	94	111	118
LCS 460-800180/6	Lab Control Sample	100	95	109	111
LCSD 460-800180/7	Lab Control Sample Dup	103	97	110	110
MB 460-800180/10	Method Blank	104	98	112	114

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (11-104)	PHL (15-100)	TPHL (12-126)	TBP (10-123)	2FP (10-105)	FBP (14-103)
460-242115-F-11-A MS	Matrix Spike	65	66	71	75	68	65
460-242115-F-11-B MSD	Matrix Spike Duplicate	47	53	60	62	52	48
460-242141-1	083_LB-28_15-16	59	79	30	40	62	45
460-242141-2	084_DUP-5	62	59	46	30	45	48
LCS 460-799848/2-A	Lab Control Sample	72	75	81	81	75	72
LCSD 460-799848/3-A	Lab Control Sample Dup	74	77	83	83	76	72
MB 460-799848/1-A	Method Blank	73	76	80	77	76	70

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-150)	DCBP2 (10-150)	TCX1 (10-133)	TCX2 (10-133)
460-242141-1	083_LB-28_15-16	91	94	81	84
460-242141-2	084_DUP-5	106	106	86	87
LCS 460-799834/2-A	Lab Control Sample	73	72	73	70
LCSD 460-799834/3-A	Lab Control Sample Dup	72	72	73	70
MB 460-799834/1-A	Method Blank	86	85	82	83

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (37-150)	DCBP2 (37-150)	TCX1 (54-150)	TCX2 (54-150)
460-242141-1	083_LB-28_15-16	151 *	146	130	137
460-242141-2	084_DUP-5	151 *	144	126	128
LCS 460-799833/2-A	Lab Control Sample	106	102	100	101
LCSD 460-799833/3-A	Lab Control Sample Dup	105	102	98	101
MB 460-799833/1-A	Method Blank	107	105	97	104

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (65-150)	DCPAA2 (65-150)
460-242141-1	083_LB-28_15-16	89	109
460-242141-2	084_DUP-5	94	103
LCS 460-800298/2-A	Lab Control Sample	105	127
LCSD 460-800298/3-A	Lab Control Sample Dup	93	117
MB 460-800298/1-A	Method Blank	84	108

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)	13C7PUA (15-138)
460-242141-1	083_LB-28_15-16	118	122	99	103	110	104	116	122
460-242141-2	084_DUP-5	93	119	99	103	108	109	102	100
LCS 410-168908/2-B	Lab Control Sample	94	102	102	103	102	103	105	115
LCSD 410-168908/3-B	Lab Control Sample Dup	106	112	104	108	112	101	115	118
MB 410-168908/1-B	Method Blank	120	121	106	108	111	107	125	132

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	PFOSA (25-135)
460-242141-1	083_LB-28_15-16	102	101	121	106	101	73	86	113
460-242141-2	084_DUP-5	93	92	115	105	104	57	67	98
LCS 410-168908/2-B	Lab Control Sample	106	109	124	101	99	102	105	107
LCSD 410-168908/3-B	Lab Control Sample Dup	104	109	128	113	100	111	103	102
MB 410-168908/1-B	Method Blank	112	111	129	110	104	110	118	122

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (12-137)	PFPeA (12-135)
460-242141-1	083_LB-28_15-16	99	107
460-242141-2	084_DUP-5	98	102
LCS 410-168908/2-B	Lab Control Sample	104	109
LCSD 410-168908/3-B	Lab Control Sample Dup	108	113
MB 410-168908/1-B	Method Blank	107	115

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: 460-242141-7 MS

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: 089_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799762

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	0.96	U	18.8	17.1		ug/Kg	☼	91	78 - 132
1,1-Dichloroethane	0.96	U	18.8	16.4		ug/Kg	☼	87	76 - 129
1,1-Dichloroethene	0.96	U	18.8	15.2		ug/Kg	☼	80	77 - 132
1,2,4-Trimethylbenzene	0.96	U	18.8	15.6		ug/Kg	☼	83	79 - 120
1,2-Dichlorobenzene	0.96	U	18.8	15.6		ug/Kg	☼	83	80 - 120
1,2-Dichloroethane	0.96	U	18.8	15.7		ug/Kg	☼	83	70 - 132
1,3,5-Trimethylbenzene	0.96	U	18.8	15.8		ug/Kg	☼	84	79 - 120
1,3-Dichlorobenzene	0.96	U	18.8	15.9		ug/Kg	☼	84	80 - 120
1,4-Dichlorobenzene	0.96	U	18.8	15.3		ug/Kg	☼	81	80 - 120
1,4-Dioxane	19	U	377	376	*	ug/Kg	☼	100	73 - 136
2-Butanone (MEK)	4.8	U	94.2	89.7		ug/Kg	☼	95	75 - 120
Acetone	5.8	U	94.2	87.0		ug/Kg	☼	92	63 - 131
Benzene	0.96	U	18.8	16.7		ug/Kg	☼	89	80 - 123
Carbon tetrachloride	0.96	U	18.8	17.4		ug/Kg	☼	92	72 - 136
Chlorobenzene	0.96	U	18.8	16.4		ug/Kg	☼	87	80 - 120
Chloroform	0.96	U	18.8	16.8		ug/Kg	☼	89	79 - 126
cis-1,2-Dichloroethene	0.96	U	18.8	16.5		ug/Kg	☼	87	80 - 123
Ethylbenzene	0.96	U	18.8	15.8		ug/Kg	☼	84	80 - 120
Methyl tert-butyl ether	0.96	U	18.8	14.9	*	ug/Kg	☼	79	80 - 125
Methylene Chloride	1.9	U	18.8	15.0		ug/Kg	☼	80	76 - 127
m-Xylene & p-Xylene	0.96	U	18.8	15.8		ug/Kg	☼	84	80 - 120
n-Butylbenzene	0.96	U	18.8	15.1		ug/Kg	☼	80	77 - 123
N-Propylbenzene	0.96	U	18.8	16.1		ug/Kg	☼	85	78 - 120
o-Xylene	0.96	U	18.8	15.6		ug/Kg	☼	83	80 - 120
sec-Butylbenzene	0.96	U	18.8	15.0		ug/Kg	☼	79	78 - 120
tert-Butylbenzene	0.96	U	18.8	15.6		ug/Kg	☼	83	76 - 120
Tetrachloroethene	0.96	U	18.8	17.3		ug/Kg	☼	92	78 - 123
Toluene	0.96	U	18.8	16.2		ug/Kg	☼	86	80 - 120
trans-1,2-Dichloroethene	0.96	U	18.8	15.9		ug/Kg	☼	85	78 - 128
Trichloroethene	0.96	U	18.8	16.6		ug/Kg	☼	88	79 - 120
Vinyl chloride	0.96	U	18.8	16.4		ug/Kg	☼	87	56 - 147
Xylenes, Total	1.9	U	37.7	31.4		ug/Kg	☼	83	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		77 - 145
4-Bromofluorobenzene	117		70 - 139
Dibromofluoromethane (Surr)	120		48 - 150
Toluene-d8 (Surr)	121	*	80 - 120

Lab Sample ID: 460-242141-7 MSD

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: 089_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799762

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1,1,1-Trichloroethane	0.96	U	18.9	18.5		ug/Kg	☼	98	78 - 132	8	30
1,1-Dichloroethane	0.96	U	18.9	16.8		ug/Kg	☼	89	76 - 129	2	30
1,1-Dichloroethene	0.96	U	18.9	15.4		ug/Kg	☼	82	77 - 132	2	30
1,2,4-Trimethylbenzene	0.96	U	18.9	16.4		ug/Kg	☼	87	79 - 120	5	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-242141-7 MSD

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: 089_LB-47-15-16

Prep Type: Total/NA

Prep Batch: 799762

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichlorobenzene	0.96	U	18.9	16.2		ug/Kg	☼	86	80 - 120	4	30
1,2-Dichloroethane	0.96	U	18.9	16.1		ug/Kg	☼	85	70 - 132	2	30
1,3,5-Trimethylbenzene	0.96	U	18.9	16.7		ug/Kg	☼	89	79 - 120	6	30
1,3-Dichlorobenzene	0.96	U	18.9	16.2		ug/Kg	☼	86	80 - 120	2	30
1,4-Dichlorobenzene	0.96	U	18.9	15.6		ug/Kg	☼	83	80 - 120	2	30
1,4-Dioxane	19	U	377	464	*	ug/Kg	☼	123	73 - 136	21	30
2-Butanone (MEK)	4.8	U	94.3	88.9		ug/Kg	☼	94	75 - 120	1	30
Acetone	5.8	U	94.3	88.4		ug/Kg	☼	94	63 - 131	2	30
Benzene	0.96	U	18.9	17.1		ug/Kg	☼	91	80 - 123	2	30
Carbon tetrachloride	0.96	U	18.9	17.7		ug/Kg	☼	94	72 - 136	2	30
Chlorobenzene	0.96	U	18.9	16.5		ug/Kg	☼	88	80 - 120	1	30
Chloroform	0.96	U	18.9	17.7		ug/Kg	☼	94	79 - 126	5	30
cis-1,2-Dichloroethene	0.96	U	18.9	16.8		ug/Kg	☼	89	80 - 123	2	30
Ethylbenzene	0.96	U	18.9	16.7		ug/Kg	☼	89	80 - 120	5	30
Methyl tert-butyl ether	0.96	U	18.9	15.5		ug/Kg	☼	82	80 - 125	4	30
Methylene Chloride	1.9	U	18.9	17.1		ug/Kg	☼	91	76 - 127	13	30
m-Xylene & p-Xylene	0.96	U	18.9	17.0		ug/Kg	☼	90	80 - 120	7	30
n-Butylbenzene	0.96	U	18.9	16.0		ug/Kg	☼	85	77 - 123	6	30
N-Propylbenzene	0.96	U	18.9	16.8		ug/Kg	☼	89	78 - 120	5	30
o-Xylene	0.96	U	18.9	16.3		ug/Kg	☼	86	80 - 120	5	30
sec-Butylbenzene	0.96	U	18.9	16.4		ug/Kg	☼	87	78 - 120	9	30
tert-Butylbenzene	0.96	U	18.9	16.6		ug/Kg	☼	88	76 - 120	6	30
Tetrachloroethene	0.96	U	18.9	17.5		ug/Kg	☼	93	78 - 123	1	30
Toluene	0.96	U	18.9	16.9		ug/Kg	☼	90	80 - 120	4	30
trans-1,2-Dichloroethene	0.96	U	18.9	16.4		ug/Kg	☼	87	78 - 128	3	30
Trichloroethene	0.96	U	18.9	17.2		ug/Kg	☼	91	79 - 120	3	30
Vinyl chloride	0.96	U	18.9	18.8		ug/Kg	☼	100	56 - 147	13	30
Xylenes, Total	1.9	U	37.7	33.3		ug/Kg	☼	88	80 - 120	6	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		77 - 145
4-Bromofluorobenzene	100		70 - 139
Dibromofluoromethane (Surr)	101		48 - 150
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: 460-242141-11 MS

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: 093_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799762

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	0.98	U	19.6	16.7		ug/Kg	☼	85	78 - 132
1,1-Dichloroethane	0.98	U	19.6	15.2		ug/Kg	☼	77	76 - 129
1,1-Dichloroethene	0.98	U	19.6	14.7	*	ug/Kg	☼	75	77 - 132
1,2,4-Trimethylbenzene	0.98	U	19.6	14.1	*	ug/Kg	☼	72	79 - 120
1,2-Dichlorobenzene	0.98	U	19.6	14.5	*	ug/Kg	☼	74	80 - 120
1,2-Dichloroethane	0.98	U	19.6	14.0		ug/Kg	☼	72	70 - 132
1,3,5-Trimethylbenzene	0.98	U	19.6	14.2	*	ug/Kg	☼	72	79 - 120
1,3-Dichlorobenzene	0.98	U	19.6	14.6	*	ug/Kg	☼	74	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-242141-11 MS

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: 093_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799762

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.98	U	19.6	14.2	*	ug/Kg	☼	73	80 - 120
1,4-Dioxane	20	U	392	430		ug/Kg	☼	110	73 - 136
2-Butanone (MEK)	4.9	U	98.0	76.7		ug/Kg	☼	78	75 - 120
Acetone	5.9	U	98.0	63.9		ug/Kg	☼	65	63 - 131
Benzene	0.98	U	19.6	15.2	*	ug/Kg	☼	78	80 - 123
Carbon tetrachloride	0.98	U	19.6	16.4		ug/Kg	☼	84	72 - 136
Chlorobenzene	0.98	U	19.6	15.0	*	ug/Kg	☼	76	80 - 120
Chloroform	0.98	U	19.6	15.9		ug/Kg	☼	81	79 - 126
cis-1,2-Dichloroethene	0.98	U	19.6	15.4	*	ug/Kg	☼	78	80 - 123
Ethylbenzene	0.98	U	19.6	14.3	*	ug/Kg	☼	73	80 - 120
Methyl tert-butyl ether	0.98	U	19.6	14.5	*	ug/Kg	☼	74	80 - 125
Methylene Chloride	2.0	U	19.6	16.0		ug/Kg	☼	81	76 - 127
m-Xylene & p-Xylene	0.98	U	19.6	14.7	*	ug/Kg	☼	75	80 - 120
n-Butylbenzene	0.98	U	19.6	13.6	*	ug/Kg	☼	69	77 - 123
N-Propylbenzene	0.98	U	19.6	14.5	*	ug/Kg	☼	74	78 - 120
o-Xylene	0.98	U	19.6	14.3	*	ug/Kg	☼	73	80 - 120
sec-Butylbenzene	0.98	U	19.6	13.5	*	ug/Kg	☼	69	78 - 120
tert-Butylbenzene	0.98	U	19.6	14.2	*	ug/Kg	☼	72	76 - 120
Tetrachloroethene	0.98	U	19.6	15.0	*	ug/Kg	☼	76	78 - 123
Toluene	0.98	U	19.6	15.1	*	ug/Kg	☼	77	80 - 120
trans-1,2-Dichloroethene	0.98	U	19.6	15.0	*	ug/Kg	☼	76	78 - 128
Trichloroethene	0.98	U	19.6	15.9		ug/Kg	☼	81	79 - 120
Vinyl chloride	0.98	U	19.6	17.3		ug/Kg	☼	88	56 - 147
Xylenes, Total	2.0	U	39.2	29.0	*	ug/Kg	☼	74	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		77 - 145
4-Bromofluorobenzene	105		70 - 139
Dibromofluoromethane (Surr)	108		48 - 150
Toluene-d8 (Surr)	104		80 - 120

Lab Sample ID: 460-242141-11 MSD

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: 093_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799762

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.98	U	17.8	16.5		ug/Kg	☼	92	78 - 132	1	30
1,1-Dichloroethane	0.98	U	17.8	15.2		ug/Kg	☼	85	76 - 129	0	30
1,1-Dichloroethene	0.98	U	17.8	13.9		ug/Kg	☼	78	77 - 132	6	30
1,2,4-Trimethylbenzene	0.98	U	17.8	15.1		ug/Kg	☼	85	79 - 120	7	30
1,2-Dichlorobenzene	0.98	U	17.8	14.7		ug/Kg	☼	83	80 - 120	2	30
1,2-Dichloroethane	0.98	U	17.8	14.2		ug/Kg	☼	80	70 - 132	1	30
1,3,5-Trimethylbenzene	0.98	U	17.8	15.0		ug/Kg	☼	84	79 - 120	5	30
1,3-Dichlorobenzene	0.98	U	17.8	15.1		ug/Kg	☼	85	80 - 120	3	30
1,4-Dichlorobenzene	0.98	U	17.8	14.6		ug/Kg	☼	82	80 - 120	3	30
1,4-Dioxane	20	U	356	463	*	ug/Kg	☼	130	73 - 136	7	30
2-Butanone (MEK)	4.9	U	89.0	84.4		ug/Kg	☼	95	75 - 120	10	30
Acetone	5.9	U	89.0	80.0		ug/Kg	☼	90	63 - 131	22	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-242141-11 MSD

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: 093_LB-27-15-16

Prep Type: Total/NA

Prep Batch: 799762

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.98	U	17.8	15.5		ug/Kg	☼	87	80 - 123	2	30
Carbon tetrachloride	0.98	U	17.8	16.2		ug/Kg	☼	91	72 - 136	1	30
Chlorobenzene	0.98	U	17.8	15.2		ug/Kg	☼	85	80 - 120	2	30
Chloroform	0.98	U	17.8	15.9		ug/Kg	☼	89	79 - 126	0	30
cis-1,2-Dichloroethene	0.98	U	17.8	15.4		ug/Kg	☼	87	80 - 123	0	30
Ethylbenzene	0.98	U	17.8	15.0		ug/Kg	☼	84	80 - 120	5	30
Methyl tert-butyl ether	0.98	U	17.8	13.8	*	ug/Kg	☼	77	80 - 125	5	30
Methylene Chloride	2.0	U	17.8	14.8		ug/Kg	☼	83	76 - 127	8	30
m-Xylene & p-Xylene	0.98	U	17.8	15.1		ug/Kg	☼	85	80 - 120	2	30
n-Butylbenzene	0.98	U	17.8	14.7		ug/Kg	☼	82	77 - 123	8	30
N-Propylbenzene	0.98	U	17.8	15.6		ug/Kg	☼	88	78 - 120	7	30
o-Xylene	0.98	U	17.8	14.9		ug/Kg	☼	84	80 - 120	4	30
sec-Butylbenzene	0.98	U	17.8	14.7		ug/Kg	☼	83	78 - 120	9	30
tert-Butylbenzene	0.98	U	17.8	15.2		ug/Kg	☼	85	76 - 120	7	30
Tetrachloroethene	0.98	U	17.8	15.4		ug/Kg	☼	86	78 - 123	3	30
Toluene	0.98	U	17.8	15.1		ug/Kg	☼	85	80 - 120	0	30
trans-1,2-Dichloroethene	0.98	U	17.8	14.9		ug/Kg	☼	84	78 - 128	0	30
Trichloroethene	0.98	U	17.8	15.7		ug/Kg	☼	88	79 - 120	1	30
Vinyl chloride	0.98	U	17.8	16.8		ug/Kg	☼	95	56 - 147	3	30
Xylenes, Total	2.0	U	35.6	29.9		ug/Kg	☼	84	80 - 120	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		77 - 145
4-Bromofluorobenzene	101		70 - 139
Dibromofluoromethane (Surr)	100		48 - 150
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: MB 460-799878/8

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			09/05/21 08:29	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			09/05/21 08:29	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			09/05/21 08:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			09/05/21 08:29	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			09/05/21 08:29	1
Acetone	6.0	U	6.0	5.7	ug/Kg			09/05/21 08:29	1
Benzene	1.0	U	1.0	0.26	ug/Kg			09/05/21 08:29	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			09/05/21 08:29	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			09/05/21 08:29	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			09/05/21 08:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			09/05/21 08:29	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			09/05/21 08:29	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			09/05/21 08:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			09/05/21 08:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			09/05/21 08:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			09/05/21 08:29	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-799878/8

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			09/05/21 08:29	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			09/05/21 08:29	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			09/05/21 08:29	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			09/05/21 08:29	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			09/05/21 08:29	1
Toluene	1.0	U	1.0	0.23	ug/Kg			09/05/21 08:29	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			09/05/21 08:29	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/05/21 08:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			09/05/21 08:29	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			09/05/21 08:29	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			09/05/21 08:29	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/05/21 08:29	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			09/05/21 08:29	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			09/05/21 08:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		77 - 145		09/05/21 08:29	1
4-Bromofluorobenzene	105		70 - 139		09/05/21 08:29	1
Toluene-d8 (Surr)	102		80 - 120		09/05/21 08:29	1
Dibromofluoromethane (Surr)	113		48 - 150		09/05/21 08:29	1

Lab Sample ID: LCS 460-799878/4

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	16.3		ug/Kg		81	77 - 132
1,1-Dichloroethane	20.0	18.2		ug/Kg		91	76 - 129
1,2-Dichloroethane	20.0	17.8		ug/Kg		89	70 - 132
1,1,1-Trichloroethane	20.0	19.3		ug/Kg		97	78 - 132
2-Butanone (MEK)	100	93.4		ug/Kg		93	75 - 120
Acetone	100	78.0		ug/Kg		78	63 - 131
Benzene	20.0	18.4		ug/Kg		92	80 - 123
Carbon tetrachloride	20.0	18.7		ug/Kg		94	72 - 136
Chloroform	20.0	18.6		ug/Kg		93	79 - 126
Chlorobenzene	20.0	18.1		ug/Kg		90	80 - 120
cis-1,2-Dichloroethene	20.0	18.5		ug/Kg		93	80 - 123
Ethylbenzene	20.0	18.1		ug/Kg		90	80 - 120
Methylene Chloride	20.0	16.6		ug/Kg		83	76 - 127
m-Xylene & p-Xylene	20.0	18.4		ug/Kg		92	80 - 120
Methyl tert-butyl ether	20.0	17.2		ug/Kg		86	80 - 125
1,3-Dichlorobenzene	20.0	19.2		ug/Kg		96	80 - 120
1,4-Dichlorobenzene	20.0	18.7		ug/Kg		94	80 - 120
o-Xylene	20.0	17.9		ug/Kg		90	80 - 120
1,2-Dichlorobenzene	20.0	19.0		ug/Kg		95	80 - 120
1,4-Dioxane	400	467		ug/Kg		117	73 - 136
1,2,4-Trimethylbenzene	20.0	19.0		ug/Kg		95	79 - 120
Tetrachloroethene	20.0	18.3		ug/Kg		92	78 - 123

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-799878/4

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethylbenzene	20.0	19.0		ug/Kg		95	79 - 120
Toluene	20.0	18.4		ug/Kg		92	80 - 120
N-Propylbenzene	20.0	19.4		ug/Kg		97	78 - 120
sec-Butylbenzene	20.0	19.2		ug/Kg		96	78 - 120
trans-1,2-Dichloroethene	20.0	17.8		ug/Kg		89	78 - 128
tert-Butylbenzene	20.0	19.3		ug/Kg		97	76 - 120
Trichloroethene	20.0	18.7		ug/Kg		93	79 - 120
n-Butylbenzene	20.0	19.5		ug/Kg		97	77 - 123
Vinyl chloride	20.0	20.5		ug/Kg		102	56 - 147
Xylenes, Total	40.0	36.4		ug/Kg		91	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 145
4-Bromofluorobenzene	106		70 - 139
Toluene-d8 (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	103		48 - 150

Lab Sample ID: LCSD 460-799878/5

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	19.0		ug/Kg		95	77 - 132	15	30
1,1-Dichloroethane	20.0	18.6		ug/Kg		93	76 - 129	2	30
1,2-Dichloroethane	20.0	18.1		ug/Kg		90	70 - 132	2	30
1,1,1-Trichloroethane	20.0	20.2		ug/Kg		101	78 - 132	5	30
2-Butanone (MEK)	100	99.4		ug/Kg		99	75 - 120	6	30
Acetone	100	92.0		ug/Kg		92	63 - 131	17	30
Benzene	20.0	19.6		ug/Kg		98	80 - 123	7	30
Carbon tetrachloride	20.0	19.3		ug/Kg		96	72 - 136	3	30
Chloroform	20.0	19.8		ug/Kg		99	79 - 126	6	30
Chlorobenzene	20.0	19.1		ug/Kg		96	80 - 120	6	30
cis-1,2-Dichloroethene	20.0	19.1		ug/Kg		95	80 - 123	3	30
Ethylbenzene	20.0	18.5		ug/Kg		92	80 - 120	2	30
Methylene Chloride	20.0	18.6		ug/Kg		93	76 - 127	11	30
m-Xylene & p-Xylene	20.0	19.2		ug/Kg		96	80 - 120	4	30
Methyl tert-butyl ether	20.0	19.7		ug/Kg		99	80 - 125	14	30
1,3-Dichlorobenzene	20.0	18.4		ug/Kg		92	80 - 120	5	30
1,4-Dichlorobenzene	20.0	18.3		ug/Kg		92	80 - 120	2	30
o-Xylene	20.0	18.6		ug/Kg		93	80 - 120	4	30
1,2-Dichlorobenzene	20.0	19.1		ug/Kg		96	80 - 120	1	30
1,4-Dioxane	400	444		ug/Kg		111	73 - 136	5	30
1,2,4-Trimethylbenzene	20.0	18.1		ug/Kg		90	79 - 120	5	30
Tetrachloroethene	20.0	19.0		ug/Kg		95	78 - 123	3	30
1,3,5-Trimethylbenzene	20.0	18.2		ug/Kg		91	79 - 120	4	30
Toluene	20.0	19.3		ug/Kg		97	80 - 120	5	30
N-Propylbenzene	20.0	18.5		ug/Kg		92	78 - 120	5	30
sec-Butylbenzene	20.0	17.4		ug/Kg		87	78 - 120	10	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-799878/5

Matrix: Solid

Analysis Batch: 799878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	20.0	18.6		ug/Kg		93	78 - 128	5	30
tert-Butylbenzene	20.0	18.0		ug/Kg		90	76 - 120	7	30
Trichloroethene	20.0	18.9		ug/Kg		95	79 - 120	1	30
n-Butylbenzene	20.0	17.7		ug/Kg		88	77 - 123	10	30
Vinyl chloride	20.0	20.9		ug/Kg		105	56 - 147	2	30
Xylenes, Total	40.0	37.8		ug/Kg		94	80 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 145
4-Bromofluorobenzene	99		70 - 139
Toluene-d8 (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	101		48 - 150

Lab Sample ID: MB 460-799950/7

Matrix: Solid

Analysis Batch: 799950

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			09/07/21 06:59	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			09/07/21 06:59	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			09/07/21 06:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			09/07/21 06:59	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			09/07/21 06:59	1
Acetone	6.0	U	6.0	5.7	ug/Kg			09/07/21 06:59	1
Benzene	1.0	U	1.0	0.26	ug/Kg			09/07/21 06:59	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			09/07/21 06:59	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			09/07/21 06:59	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			09/07/21 06:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			09/07/21 06:59	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			09/07/21 06:59	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			09/07/21 06:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			09/07/21 06:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			09/07/21 06:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			09/07/21 06:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			09/07/21 06:59	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			09/07/21 06:59	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			09/07/21 06:59	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			09/07/21 06:59	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			09/07/21 06:59	1
Toluene	1.0	U	1.0	0.23	ug/Kg			09/07/21 06:59	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			09/07/21 06:59	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/07/21 06:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			09/07/21 06:59	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			09/07/21 06:59	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			09/07/21 06:59	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/07/21 06:59	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			09/07/21 06:59	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			09/07/21 06:59	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-799950/7

Matrix: Solid

Analysis Batch: 799950

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 145		09/07/21 06:59	1
4-Bromofluorobenzene	101		70 - 139		09/07/21 06:59	1
Toluene-d8 (Surr)	101		80 - 120		09/07/21 06:59	1
Dibromofluoromethane (Surr)	109		48 - 150		09/07/21 06:59	1

Lab Sample ID: LCS 460-799950/3

Matrix: Solid

Analysis Batch: 799950

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	20.7		ug/Kg		103	77 - 132
1,1-Dichloroethane	20.0	19.6		ug/Kg		98	76 - 129
1,2-Dichloroethane	20.0	18.5		ug/Kg		92	70 - 132
1,1,1-Trichloroethane	20.0	20.9		ug/Kg		105	78 - 132
2-Butanone (MEK)	100	94.3		ug/Kg		94	75 - 120
Acetone	100	92.2		ug/Kg		92	63 - 131
Benzene	20.0	19.6		ug/Kg		98	80 - 123
Carbon tetrachloride	20.0	21.8		ug/Kg		109	72 - 136
Chloroform	20.0	20.0		ug/Kg		100	79 - 126
Chlorobenzene	20.0	18.8		ug/Kg		94	80 - 120
cis-1,2-Dichloroethene	20.0	19.4		ug/Kg		97	80 - 123
Ethylbenzene	20.0	19.2		ug/Kg		96	80 - 120
Methylene Chloride	20.0	19.5		ug/Kg		98	76 - 127
m-Xylene & p-Xylene	20.0	19.1		ug/Kg		95	80 - 120
Methyl tert-butyl ether	20.0	20.2		ug/Kg		101	80 - 125
1,3-Dichlorobenzene	20.0	19.1		ug/Kg		96	80 - 120
1,4-Dichlorobenzene	20.0	18.8		ug/Kg		94	80 - 120
o-Xylene	20.0	18.5		ug/Kg		93	80 - 120
1,2-Dichlorobenzene	20.0	19.0		ug/Kg		95	80 - 120
1,4-Dioxane	400	456		ug/Kg		114	73 - 136
1,2,4-Trimethylbenzene	20.0	19.3		ug/Kg		97	79 - 120
Tetrachloroethene	20.0	19.6		ug/Kg		98	78 - 123
1,3,5-Trimethylbenzene	20.0	18.9		ug/Kg		94	79 - 120
Toluene	20.0	19.0		ug/Kg		95	80 - 120
N-Propylbenzene	20.0	20.0		ug/Kg		100	78 - 120
sec-Butylbenzene	20.0	19.0		ug/Kg		95	78 - 120
trans-1,2-Dichloroethene	20.0	20.7		ug/Kg		104	78 - 128
tert-Butylbenzene	20.0	19.5		ug/Kg		98	76 - 120
Trichloroethene	20.0	19.7		ug/Kg		98	79 - 120
n-Butylbenzene	20.0	20.2		ug/Kg		101	77 - 123
Vinyl chloride	20.0	18.0		ug/Kg		90	56 - 147
Xylenes, Total	40.0	37.6		ug/Kg		94	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 145
4-Bromofluorobenzene	99		70 - 139
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	104		48 - 150

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: LCSD 460-799950/4

Matrix: Solid

Analysis Batch: 799950

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	18.6		ug/Kg		93	77 - 132	10	30
1,1-Dichloroethane	20.0	18.2		ug/Kg		91	76 - 129	8	30
1,2-Dichloroethane	20.0	16.5		ug/Kg		83	70 - 132	11	30
1,1,1-Trichloroethane	20.0	19.5		ug/Kg		97	78 - 132	7	30
2-Butanone (MEK)	100	95.6		ug/Kg		96	75 - 120	1	30
Acetone	100	87.3		ug/Kg		87	63 - 131	5	30
Benzene	20.0	18.4		ug/Kg		92	80 - 123	7	30
Carbon tetrachloride	20.0	19.3		ug/Kg		96	72 - 136	12	30
Chloroform	20.0	18.0		ug/Kg		90	79 - 126	10	30
Chlorobenzene	20.0	17.6		ug/Kg		88	80 - 120	6	30
cis-1,2-Dichloroethene	20.0	18.0		ug/Kg		90	80 - 123	8	30
Ethylbenzene	20.0	18.0		ug/Kg		90	80 - 120	6	30
Methylene Chloride	20.0	17.2		ug/Kg		86	76 - 127	13	30
m-Xylene & p-Xylene	20.0	18.0		ug/Kg		90	80 - 120	6	30
Methyl tert-butyl ether	20.0	17.9		ug/Kg		90	80 - 125	12	30
1,3-Dichlorobenzene	20.0	17.4		ug/Kg		87	80 - 120	9	30
1,4-Dichlorobenzene	20.0	16.9		ug/Kg		84	80 - 120	11	30
o-Xylene	20.0	17.3		ug/Kg		86	80 - 120	7	30
1,2-Dichlorobenzene	20.0	17.5		ug/Kg		87	80 - 120	8	30
1,4-Dioxane	400	440		ug/Kg		110	73 - 136	4	30
1,2,4-Trimethylbenzene	20.0	17.4		ug/Kg		87	79 - 120	10	30
Tetrachloroethene	20.0	18.2		ug/Kg		91	78 - 123	7	30
1,3,5-Trimethylbenzene	20.0	17.9		ug/Kg		89	79 - 120	5	30
Toluene	20.0	18.2		ug/Kg		91	80 - 120	4	30
N-Propylbenzene	20.0	18.6		ug/Kg		93	78 - 120	7	30
sec-Butylbenzene	20.0	17.9		ug/Kg		89	78 - 120	6	30
trans-1,2-Dichloroethene	20.0	19.0		ug/Kg		95	78 - 128	9	30
tert-Butylbenzene	20.0	18.2		ug/Kg		91	76 - 120	7	30
Trichloroethene	20.0	18.3		ug/Kg		92	79 - 120	7	30
n-Butylbenzene	20.0	18.5		ug/Kg		93	77 - 123	8	30
Vinyl chloride	20.0	18.3		ug/Kg		91	56 - 147	2	30
Xylenes, Total	40.0	35.3		ug/Kg		88	80 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 145
4-Bromofluorobenzene	96		70 - 139
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	102		48 - 150

Lab Sample ID: MB 460-800180/10

Matrix: Water

Analysis Batch: 800180

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			09/08/21 12:18	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			09/08/21 12:18	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			09/08/21 12:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			09/08/21 12:18	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-800180/10

Matrix: Water

Analysis Batch: 800180

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			09/08/21 12:18	1
Acetone	5.0	U	5.0	4.4	ug/L			09/08/21 12:18	1
Benzene	1.0	U	1.0	0.20	ug/L			09/08/21 12:18	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			09/08/21 12:18	1
Chloroform	1.0	U	1.0	0.33	ug/L			09/08/21 12:18	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			09/08/21 12:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			09/08/21 12:18	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			09/08/21 12:18	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			09/08/21 12:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			09/08/21 12:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			09/08/21 12:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			09/08/21 12:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			09/08/21 12:18	1
1,4-Dioxane	50	U	50	28	ug/L			09/08/21 12:18	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			09/08/21 12:18	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			09/08/21 12:18	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			09/08/21 12:18	1
Toluene	1.0	U	1.0	0.38	ug/L			09/08/21 12:18	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			09/08/21 12:18	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			09/08/21 12:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/08/21 12:18	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			09/08/21 12:18	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			09/08/21 12:18	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			09/08/21 12:18	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/08/21 12:18	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			09/08/21 12:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 123		09/08/21 12:18	1
4-Bromofluorobenzene	112		76 - 120		09/08/21 12:18	1
Toluene-d8 (Surr)	98		80 - 120		09/08/21 12:18	1
Dibromofluoromethane (Surr)	114		77 - 124		09/08/21 12:18	1

Lab Sample ID: LCS 460-800180/6

Matrix: Water

Analysis Batch: 800180

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	22.2		ug/L		111	68 - 133
1,1-Dichloroethane	20.0	22.7		ug/L		113	73 - 130
1,2-Dichloroethane	20.0	21.8		ug/L		109	75 - 121
1,1,1-Trichloroethane	20.0	23.4		ug/L		117	68 - 128
2-Butanone (MEK)	100	84.2		ug/L		84	69 - 128
Acetone	100	98.2		ug/L		98	61 - 134
Benzene	20.0	19.3		ug/L		97	78 - 126
Carbon tetrachloride	20.0	23.7		ug/L		119	56 - 131
Chloroform	20.0	21.2		ug/L		106	78 - 125
Chlorobenzene	20.0	19.1		ug/L		96	80 - 119

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-800180/6

Matrix: Water

Analysis Batch: 800180

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	20.0	21.4		ug/L		107	78 - 121
Ethylbenzene	20.0	19.1		ug/L		95	78 - 120
Methylene Chloride	20.0	20.9		ug/L		105	74 - 127
m-Xylene & p-Xylene	20.0	19.1		ug/L		96	78 - 123
Methyl tert-butyl ether	20.0	22.1		ug/L		111	65 - 131
1,3-Dichlorobenzene	20.0	18.6		ug/L		93	80 - 121
1,4-Dichlorobenzene	20.0	18.2		ug/L		91	80 - 118
o-Xylene	20.0	19.2		ug/L		96	78 - 122
1,2-Dichlorobenzene	20.0	17.9		ug/L		90	79 - 122
1,4-Dioxane	400	350		ug/L		88	70 - 142
1,2,4-Trimethylbenzene	20.0	18.2		ug/L		91	75 - 125
Tetrachloroethene	20.0	22.8		ug/L		114	70 - 127
1,3,5-Trimethylbenzene	20.0	18.2		ug/L		91	75 - 125
Toluene	20.0	19.0		ug/L		95	78 - 119
N-Propylbenzene	20.0	19.7		ug/L		98	74 - 129
sec-Butylbenzene	20.0	19.4		ug/L		97	73 - 129
trans-1,2-Dichloroethene	20.0	21.6		ug/L		108	74 - 126
tert-Butylbenzene	20.0	18.2		ug/L		91	72 - 124
Trichloroethene	20.0	21.3		ug/L		106	71 - 121
n-Butylbenzene	20.0	19.3		ug/L		97	69 - 135
Vinyl chloride	20.0	23.0		ug/L		115	61 - 144
Xylenes, Total	40.0	38.3		ug/L		96	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		75 - 123
4-Bromofluorobenzene	109		76 - 120
Toluene-d8 (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	111		77 - 124

Lab Sample ID: LCSD 460-800180/7

Matrix: Water

Analysis Batch: 800180

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	22.9		ug/L		114	68 - 133	3	30
1,1-Dichloroethane	20.0	22.5		ug/L		113	73 - 130	1	30
1,2-Dichloroethane	20.0	21.8		ug/L		109	75 - 121	0	30
1,1,1-Trichloroethane	20.0	23.8		ug/L		119	68 - 128	2	30
2-Butanone (MEK)	100	86.1		ug/L		86	69 - 128	2	30
Acetone	100	100		ug/L		100	61 - 134	2	30
Benzene	20.0	20.2		ug/L		101	78 - 126	5	30
Carbon tetrachloride	20.0	24.3		ug/L		122	56 - 131	3	30
Chloroform	20.0	22.3		ug/L		111	78 - 125	5	30
Chlorobenzene	20.0	20.1		ug/L		100	80 - 119	5	30
cis-1,2-Dichloroethene	20.0	22.1		ug/L		110	78 - 121	3	30
Ethylbenzene	20.0	19.2		ug/L		96	78 - 120	0	30
Methylene Chloride	20.0	20.7		ug/L		104	74 - 127	1	30
m-Xylene & p-Xylene	20.0	20.2		ug/L		101	78 - 123	5	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-800180/7

Matrix: Water

Analysis Batch: 800180

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl tert-butyl ether	20.0	22.4		ug/L		112	65 - 131	1	30
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	80 - 121	5	30
1,4-Dichlorobenzene	20.0	19.7		ug/L		98	80 - 118	8	30
o-Xylene	20.0	20.1		ug/L		100	78 - 122	4	30
1,2-Dichlorobenzene	20.0	19.5		ug/L		98	79 - 122	9	30
1,4-Dioxane	400	405		ug/L		101	70 - 142	14	30
1,2,4-Trimethylbenzene	20.0	19.2		ug/L		96	75 - 125	5	30
Tetrachloroethene	20.0	22.6		ug/L		113	70 - 127	1	30
1,3,5-Trimethylbenzene	20.0	19.3		ug/L		97	75 - 125	6	30
Toluene	20.0	19.7		ug/L		99	78 - 119	3	30
N-Propylbenzene	20.0	20.1		ug/L		100	74 - 129	2	30
sec-Butylbenzene	20.0	20.8		ug/L		104	73 - 129	7	30
trans-1,2-Dichloroethene	20.0	21.9		ug/L		109	74 - 126	1	30
tert-Butylbenzene	20.0	19.2		ug/L		96	72 - 124	5	30
Trichloroethene	20.0	22.1		ug/L		110	71 - 121	4	30
n-Butylbenzene	20.0	20.1		ug/L		100	69 - 135	4	30
Vinyl chloride	20.0	28.5		ug/L		143	61 - 144	22	30
Xylenes, Total	40.0	40.2		ug/L		101	78 - 122	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		75 - 123
4-Bromofluorobenzene	110		76 - 120
Toluene-d8 (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	110		77 - 124

Lab Sample ID: MB 460-800337/6

Matrix: Solid

Analysis Batch: 800337

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			09/09/21 06:31	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			09/09/21 06:31	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			09/09/21 06:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			09/09/21 06:31	1
2-Butanone (MEK)	5.0	U	5.0	0.37	ug/Kg			09/09/21 06:31	1
Acetone	6.0	U	6.0	5.7	ug/Kg			09/09/21 06:31	1
Benzene	1.0	U	1.0	0.26	ug/Kg			09/09/21 06:31	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			09/09/21 06:31	1
Chloroform	1.0	U	1.0	0.97	ug/Kg			09/09/21 06:31	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			09/09/21 06:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.36	ug/Kg			09/09/21 06:31	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			09/09/21 06:31	1
Methylene Chloride	2.0	U	2.0	1.1	ug/Kg			09/09/21 06:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.51	ug/Kg			09/09/21 06:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.37	ug/Kg			09/09/21 06:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			09/09/21 06:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.36	ug/Kg			09/09/21 06:31	1
1,4-Dioxane	20	U	20	9.2	ug/Kg			09/09/21 06:31	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-800337/6

Matrix: Solid

Analysis Batch: 800337

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.25	ug/Kg			09/09/21 06:31	1
Tetrachloroethene	1.0	U	1.0	0.31	ug/Kg			09/09/21 06:31	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.31	ug/Kg			09/09/21 06:31	1
Toluene	1.0	U	1.0	0.23	ug/Kg			09/09/21 06:31	1
N-Propylbenzene	1.0	U	1.0	0.18	ug/Kg			09/09/21 06:31	1
sec-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/09/21 06:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			09/09/21 06:31	1
tert-Butylbenzene	1.0	U	1.0	0.28	ug/Kg			09/09/21 06:31	1
Trichloroethene	1.0	U	1.0	0.32	ug/Kg			09/09/21 06:31	1
n-Butylbenzene	1.0	U	1.0	0.29	ug/Kg			09/09/21 06:31	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			09/09/21 06:31	1
Xylenes, Total	2.0	U	2.0	0.64	ug/Kg			09/09/21 06:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		77 - 145		09/09/21 06:31	1
4-Bromofluorobenzene	98		70 - 139		09/09/21 06:31	1
Toluene-d8 (Surr)	96		80 - 120		09/09/21 06:31	1
Dibromofluoromethane (Surr)	111		48 - 150		09/09/21 06:31	1

Lab Sample ID: LCS 460-800337/3

Matrix: Solid

Analysis Batch: 800337

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	21.9		ug/Kg		110	77 - 132
1,1-Dichloroethane	20.0	20.5		ug/Kg		102	76 - 129
1,2-Dichloroethane	20.0	19.5		ug/Kg		98	70 - 132
1,1,1-Trichloroethane	20.0	21.2		ug/Kg		106	78 - 132
2-Butanone (MEK)	100	99.1		ug/Kg		99	75 - 120
Acetone	100	95.7		ug/Kg		96	63 - 131
Benzene	20.0	19.8		ug/Kg		99	80 - 123
Carbon tetrachloride	20.0	21.5		ug/Kg		108	72 - 136
Chloroform	20.0	20.9		ug/Kg		105	79 - 126
Chlorobenzene	20.0	19.1		ug/Kg		95	80 - 120
cis-1,2-Dichloroethene	20.0	20.6		ug/Kg		103	80 - 123
Ethylbenzene	20.0	18.8		ug/Kg		94	80 - 120
Methylene Chloride	20.0	20.5		ug/Kg		102	76 - 127
m-Xylene & p-Xylene	20.0	18.5		ug/Kg		93	80 - 120
Methyl tert-butyl ether	20.0	21.7		ug/Kg		108	80 - 125
1,3-Dichlorobenzene	20.0	19.7		ug/Kg		99	80 - 120
1,4-Dichlorobenzene	20.0	18.9		ug/Kg		95	80 - 120
o-Xylene	20.0	18.3		ug/Kg		91	80 - 120
1,2-Dichlorobenzene	20.0	19.3		ug/Kg		96	80 - 120
1,4-Dioxane	400	493		ug/Kg		123	73 - 136
1,2,4-Trimethylbenzene	20.0	18.8		ug/Kg		94	79 - 120
Tetrachloroethene	20.0	20.1		ug/Kg		100	78 - 123
1,3,5-Trimethylbenzene	20.0	19.1		ug/Kg		96	79 - 120
Toluene	20.0	19.2		ug/Kg		96	80 - 120

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-800337/3

Matrix: Solid

Analysis Batch: 800337

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-Propylbenzene	20.0	20.0		ug/Kg		100	78 - 120
sec-Butylbenzene	20.0	19.3		ug/Kg		96	78 - 120
trans-1,2-Dichloroethene	20.0	20.4		ug/Kg		102	78 - 128
tert-Butylbenzene	20.0	19.3		ug/Kg		96	76 - 120
Trichloroethene	20.0	19.7		ug/Kg		99	79 - 120
n-Butylbenzene	20.0	20.0		ug/Kg		100	77 - 123
Vinyl chloride	20.0	21.5		ug/Kg		107	56 - 147
Xylenes, Total	40.0	36.8		ug/Kg		92	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		77 - 145
4-Bromofluorobenzene	95		70 - 139
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	102		48 - 150

Lab Sample ID: LCSD 460-800337/4

Matrix: Solid

Analysis Batch: 800337

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	21.9		ug/Kg		110	77 - 132	0	30
1,1-Dichloroethane	20.0	21.9		ug/Kg		109	76 - 129	7	30
1,2-Dichloroethane	20.0	20.4		ug/Kg		102	70 - 132	4	30
1,1,1-Trichloroethane	20.0	22.3		ug/Kg		112	78 - 132	5	30
2-Butanone (MEK)	100	104		ug/Kg		104	75 - 120	4	30
Acetone	100	82.0		ug/Kg		82	63 - 131	15	30
Benzene	20.0	20.6		ug/Kg		103	80 - 123	4	30
Carbon tetrachloride	20.0	21.9		ug/Kg		110	72 - 136	2	30
Chloroform	20.0	21.7		ug/Kg		108	79 - 126	4	30
Chlorobenzene	20.0	20.5		ug/Kg		102	80 - 120	7	30
cis-1,2-Dichloroethene	20.0	20.9		ug/Kg		104	80 - 123	1	30
Ethylbenzene	20.0	19.7		ug/Kg		99	80 - 120	4	30
Methylene Chloride	20.0	21.7		ug/Kg		108	76 - 127	6	30
m-Xylene & p-Xylene	20.0	19.8		ug/Kg		99	80 - 120	7	30
Methyl tert-butyl ether	20.0	22.3		ug/Kg		112	80 - 125	3	30
1,3-Dichlorobenzene	20.0	21.1		ug/Kg		105	80 - 120	7	30
1,4-Dichlorobenzene	20.0	20.8		ug/Kg		104	80 - 120	9	30
o-Xylene	20.0	19.4		ug/Kg		97	80 - 120	6	30
1,2-Dichlorobenzene	20.0	21.0		ug/Kg		105	80 - 120	9	30
1,4-Dioxane	400	437		ug/Kg		109	73 - 136	12	30
1,2,4-Trimethylbenzene	20.0	20.8		ug/Kg		104	79 - 120	10	30
Tetrachloroethene	20.0	21.4		ug/Kg		107	78 - 123	7	30
1,3,5-Trimethylbenzene	20.0	20.7		ug/Kg		103	79 - 120	8	30
Toluene	20.0	20.4		ug/Kg		102	80 - 120	6	30
N-Propylbenzene	20.0	21.4		ug/Kg		107	78 - 120	7	30
sec-Butylbenzene	20.0	20.8		ug/Kg		104	78 - 120	7	30
trans-1,2-Dichloroethene	20.0	21.8		ug/Kg		109	78 - 128	7	30
tert-Butylbenzene	20.0	21.1		ug/Kg		105	76 - 120	9	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-800337/4

Matrix: Solid

Analysis Batch: 800337

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Trichloroethene	20.0	22.0		ug/Kg		110	79 - 120	11	30
n-Butylbenzene	20.0	22.0		ug/Kg		110	77 - 123	9	30
Vinyl chloride	20.0	22.0		ug/Kg		110	56 - 147	2	30
Xylenes, Total	40.0	39.3		ug/Kg		98	80 - 120	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 145
4-Bromofluorobenzene	102		70 - 139
Toluene-d8 (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	107		48 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-799848/1-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799848

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	330	U	330	12	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
2-Methylphenol	330	U	330	12	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
3 & 4 Methylphenol	330	U	330	21	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Pentachlorophenol	270	U	270	68	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Naphthalene	330	U	330	5.7	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Acenaphthylene	330	U	330	3.3	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Acenaphthene	330	U	330	9.4	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Dibenzofuran	330	U	330	4.6	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Fluorene	330	U	330	4.5	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Hexachlorobenzene	33	U	33	16	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Phenanthrene	330	U	330	5.8	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Anthracene	330	U	330	10	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Fluoranthene	330	U	330	12	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Pyrene	330	U	330	8.2	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[a]anthracene	33	U	33	12	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Chrysene	330	U	330	5.6	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[b]fluoranthene	33	U	33	8.6	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[k]fluoranthene	33	U	33	6.5	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[a]pyrene	33	U	33	8.8	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Indeno[1,2,3-cd]pyrene	33	U	33	13	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Dibenz(a,h)anthracene	33	U	33	14	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
Benzo[g,h,i]perylene	330	U	330	9.8	ug/Kg		09/04/21 16:35	09/04/21 20:29	1
1,4-Dioxane	33	U	33	29	ug/Kg		09/04/21 16:35	09/04/21 20:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	73		11 - 104	09/04/21 16:35	09/04/21 20:29	1
Phenol-d5 (Surr)	76		15 - 100	09/04/21 16:35	09/04/21 20:29	1
Terphenyl-d14 (Surr)	80		12 - 126	09/04/21 16:35	09/04/21 20:29	1
2,4,6-Tribromophenol (Surr)	77		10 - 123	09/04/21 16:35	09/04/21 20:29	1
2-Fluorophenol (Surr)	76		10 - 105	09/04/21 16:35	09/04/21 20:29	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-799848/1-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799848

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		14 - 103	09/04/21 16:35	09/04/21 20:29	1

Lab Sample ID: LCS 460-799848/2-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	3330	2400		ug/Kg		72	63 - 110
2-Methylphenol	3330	2520		ug/Kg		76	63 - 108
3 & 4 Methylphenol	3330	2360		ug/Kg		71	61 - 108
Pentachlorophenol	6670	4170		ug/Kg		63	44 - 126
Naphthalene	3330	2480		ug/Kg		75	63 - 106
Acenaphthylene	3330	2400		ug/Kg		72	64 - 108
Acenaphthene	3330	2090		ug/Kg		63	53 - 110
Dibenzofuran	3330	2260		ug/Kg		68	65 - 108
Fluorene	3330	2270		ug/Kg		68	65 - 109
Hexachlorobenzene	3330	2610		ug/Kg		78	61 - 113
Phenanthrene	3330	2400		ug/Kg		72	66 - 112
Anthracene	3330	2410		ug/Kg		72	67 - 114
Fluoranthene	3330	2300		ug/Kg		69	61 - 106
Pyrene	3330	2440		ug/Kg		73	61 - 111
Benzo[a]anthracene	3330	2360		ug/Kg		71	67 - 115
Chrysene	3330	2350	*	ug/Kg		70	71 - 122
Benzo[b]fluoranthene	3330	2580		ug/Kg		77	70 - 125
Benzo[k]fluoranthene	3330	2680		ug/Kg		80	67 - 115
Benzo[a]pyrene	3330	2890		ug/Kg		87	73 - 123
Indeno[1,2,3-cd]pyrene	3330	2590		ug/Kg		78	62 - 121
Dibenz(a,h)anthracene	3330	2750		ug/Kg		82	66 - 119
Benzo[g,h,i]perylene	3330	2490		ug/Kg		75	61 - 113
1,4-Dioxane	3330	1310		ug/Kg		39	31 - 81

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	72		11 - 104
Phenol-d5 (Surr)	75		15 - 100
Terphenyl-d14 (Surr)	81		12 - 126
2,4,6-Tribromophenol (Surr)	81		10 - 123
2-Fluorophenol (Surr)	75		10 - 105
2-Fluorobiphenyl	72		14 - 103

Lab Sample ID: LCSD 460-799848/3-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenol	3330	2470		ug/Kg		74	63 - 110	3	30
2-Methylphenol	3330	2580		ug/Kg		77	63 - 108	2	30
3 & 4 Methylphenol	3330	2370		ug/Kg		71	61 - 108	0	30
Pentachlorophenol	6670	4360		ug/Kg		65	44 - 126	4	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-799848/3-A

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Naphthalene	3330	2520		ug/Kg		76	63 - 106	1	30
Acenaphthylene	3330	2420		ug/Kg		73	64 - 108	1	30
Acenaphthene	3330	2100		ug/Kg		63	53 - 110	1	30
Dibenzofuran	3330	2290		ug/Kg		69	65 - 108	1	30
Fluorene	3330	2330		ug/Kg		70	65 - 109	2	30
Hexachlorobenzene	3330	2710		ug/Kg		81	61 - 113	4	30
Phenanthrene	3330	2470		ug/Kg		74	66 - 112	3	30
Anthracene	3330	2510		ug/Kg		75	67 - 114	4	30
Fluoranthene	3330	2390		ug/Kg		72	61 - 106	4	30
Pyrene	3330	2500		ug/Kg		75	61 - 111	2	30
Benzo[a]anthracene	3330	2430		ug/Kg		73	67 - 115	3	30
Chrysene	3330	2380		ug/Kg		71	71 - 122	1	30
Benzo[b]fluoranthene	3330	2650		ug/Kg		79	70 - 125	3	30
Benzo[k]fluoranthene	3330	2830		ug/Kg		85	67 - 115	6	30
Benzo[a]pyrene	3330	3020		ug/Kg		91	73 - 123	4	30
Indeno[1,2,3-cd]pyrene	3330	2850		ug/Kg		85	62 - 121	9	30
Dibenz(a,h)anthracene	3330	2900		ug/Kg		87	66 - 119	5	30
Benzo[g,h,i]perylene	3330	2680		ug/Kg		80	61 - 113	7	30
1,4-Dioxane	3330	1360		ug/Kg		41	31 - 81	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	74		11 - 104
Phenol-d5 (Surr)	77		15 - 100
Terphenyl-d14 (Surr)	83		12 - 126
2,4,6-Tribromophenol (Surr)	83		10 - 123
2-Fluorophenol (Surr)	76		10 - 105
2-Fluorobiphenyl	72		14 - 103

Lab Sample ID: 460-242115-F-11-A MS

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	400	U	4080	2840		ug/Kg	✱	70	63 - 110
2-Methylphenol	400	U	4080	2990		ug/Kg	✱	73	63 - 108
3 & 4 Methylphenol	400	U	4080	2520		ug/Kg	✱	62	61 - 108
Pentachlorophenol	330	U	8160	4490		ug/Kg	✱	55	44 - 126
Naphthalene	400	U	4080	2730		ug/Kg	✱	67	63 - 106
Acenaphthylene	400	U	4080	2740		ug/Kg	✱	67	64 - 108
Acenaphthene	400	U	4080	2410		ug/Kg	✱	59	53 - 110
Dibenzofuran	400	U	4080	2630		ug/Kg	✱	65	65 - 108
Fluorene	400	U	4080	2680		ug/Kg	✱	66	65 - 109
Hexachlorobenzene	40	U	4080	3010		ug/Kg	✱	74	61 - 113
Phenanthrene	400	U	4080	2750		ug/Kg	✱	68	66 - 112
Anthracene	400	U	4080	2770		ug/Kg	✱	68	67 - 114
Fluoranthene	400	U	4080	2720		ug/Kg	✱	67	61 - 106
Pyrene	400	U	4080	2650		ug/Kg	✱	65	61 - 111
Benzo[a]anthracene	40	U	4080	2640	*	ug/Kg	✱	65	67 - 115

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-242115-F-11-A MS

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chrysene	400	U *	4080	2760	*	ug/Kg	✖	68	71 - 122
Benzo[b]fluoranthene	40	U	4080	3010		ug/Kg	✖	74	70 - 125
Benzo[k]fluoranthene	40	U	4080	2910		ug/Kg	✖	71	67 - 115
Benzo[a]pyrene	40	U	4080	3250		ug/Kg	✖	80	73 - 123
Indeno[1,2,3-cd]pyrene	40	U	4080	2920		ug/Kg	✖	72	62 - 121
Dibenz(a,h)anthracene	40	U	4080	3150		ug/Kg	✖	77	66 - 119
Benzo[g,h,i]perylene	400	U	4080	2940		ug/Kg	✖	72	61 - 113
1,4-Dioxane	40	U	4080	1120	*	ug/Kg	✖	28	31 - 81

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	65		11 - 104
Phenol-d5 (Surr)	66		15 - 100
Terphenyl-d14 (Surr)	71		12 - 126
2,4,6-Tribromophenol (Surr)	75		10 - 123
2-Fluorophenol (Surr)	68		10 - 105
2-Fluorobiphenyl	65		14 - 103

Lab Sample ID: 460-242115-F-11-B MSD

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799848

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenol	400	U	4080	2150	*	ug/Kg	✖	53	63 - 110	27	30
2-Methylphenol	400	U	4080	2230	*	ug/Kg	✖	55	63 - 108	29	30
3 & 4 Methylphenol	400	U	4080	2100	*	ug/Kg	✖	51	61 - 108	18	30
Pentachlorophenol	330	U	8160	3530	*	ug/Kg	✖	43	44 - 126	24	30
Naphthalene	400	U	4080	1700	*	ug/Kg	✖	42	63 - 106	46	30
Acenaphthylene	400	U	4080	2140	*	ug/Kg	✖	53	64 - 108	24	30
Acenaphthene	400	U	4080	1860	*	ug/Kg	✖	46	53 - 110	26	30
Dibenzofuran	400	U	4080	2070	*	ug/Kg	✖	51	65 - 108	24	30
Fluorene	400	U	4080	2110	*	ug/Kg	✖	52	65 - 109	23	30
Hexachlorobenzene	40	U	4080	2440	*	ug/Kg	✖	60	61 - 113	21	30
Phenanthrene	400	U	4080	2270	*	ug/Kg	✖	56	66 - 112	19	30
Anthracene	400	U	4080	2300	*	ug/Kg	✖	56	67 - 114	18	30
Fluoranthene	400	U	4080	2230	*	ug/Kg	✖	55	61 - 106	20	30
Pyrene	400	U	4080	2310	*	ug/Kg	✖	57	61 - 111	14	30
Benzo[a]anthracene	40	U	4080	2230	*	ug/Kg	✖	55	67 - 115	17	30
Chrysene	400	U *	4080	2210	*	ug/Kg	✖	54	71 - 122	22	30
Benzo[b]fluoranthene	40	U	4080	2350	*	ug/Kg	✖	58	70 - 125	25	30
Benzo[k]fluoranthene	40	U	4080	2490	*	ug/Kg	✖	61	67 - 115	15	30
Benzo[a]pyrene	40	U	4080	2680	*	ug/Kg	✖	66	73 - 123	19	30
Indeno[1,2,3-cd]pyrene	40	U	4080	2480	*	ug/Kg	✖	61	62 - 121	17	30
Dibenz(a,h)anthracene	40	U	4080	2560	*	ug/Kg	✖	63	66 - 119	21	30
Benzo[g,h,i]perylene	400	U	4080	2350	*	ug/Kg	✖	58	61 - 113	22	30
1,4-Dioxane	40	U	4080	852	*	ug/Kg	✖	21	31 - 81	27	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	47		11 - 104

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-242115-F-11-B MSD

Matrix: Solid

Analysis Batch: 799863

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799848

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Phenol-d5 (Surr)	53		15 - 100
Terphenyl-d14 (Surr)	60		12 - 126
2,4,6-Tribromophenol (Surr)	62		10 - 123
2-Fluorophenol (Surr)	52		10 - 105
2-Fluorobiphenyl	48		14 - 103

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-799834/1-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799834

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDD	6.7	U	6.7	1.1	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDE	6.7	U	6.7	0.79	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
4,4'-DDT	6.7	U	6.7	1.2	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Aldrin	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
alpha-BHC	2.0	U	2.0	0.68	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
beta-BHC	2.0	U	2.0	0.75	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Chlordane (technical)	67	U	67	16	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Chlordane (technical)	67	U	67	16	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
delta-BHC	2.0	U	2.0	0.41	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Dieldrin	2.0	U	2.0	0.87	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan I	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan II	6.7	U	6.7	1.7	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endosulfan sulfate	6.7	U	6.7	0.84	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin	6.7	U	6.7	0.96	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin	6.7	U	6.7	0.96	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin aldehyde	6.7	U	6.7	1.6	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Endrin ketone	6.7	U	6.7	1.3	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
gamma-BHC (Lindane)	2.0	U	2.0	0.62	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Heptachlor	6.7	U	6.7	0.79	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Heptachlor epoxide	6.7	U	6.7	1.0	ug/Kg		09/04/21 13:11	09/07/21 05:02	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-799834/1-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799834

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Methoxychlor	6.7	U	6.7	1.5	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Toxaphene	67	U	67	24	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
Toxaphene	67	U	67	24	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		09/04/21 13:11	09/07/21 05:02	1
cis-Chlordane	6.7	U	6.7	1.1	ug/Kg		09/04/21 13:11	09/07/21 05:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		10 - 150	09/04/21 13:11	09/07/21 05:02	1
DCB Decachlorobiphenyl	86		10 - 150	09/04/21 13:11	09/07/21 05:02	1
Tetrachloro-m-xylene	83		10 - 133	09/04/21 13:11	09/07/21 05:02	1
Tetrachloro-m-xylene	82		10 - 133	09/04/21 13:11	09/07/21 05:02	1

Lab Sample ID: LCS 460-799834/2-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	133	133		ug/Kg		100	70 - 140
4,4'-DDD	133	124		ug/Kg		93	70 - 140
4,4'-DDE	133	134		ug/Kg		100	71 - 137
4,4'-DDE	133	124		ug/Kg		93	71 - 137
4,4'-DDT	133	132		ug/Kg		99	63 - 131
4,4'-DDT	133	123		ug/Kg		92	63 - 131
Aldrin	133	132		ug/Kg		99	74 - 140
Aldrin	133	122		ug/Kg		92	74 - 140
alpha-BHC	133	133		ug/Kg		100	72 - 142
alpha-BHC	133	127		ug/Kg		95	72 - 142
beta-BHC	133	137		ug/Kg		103	65 - 137
beta-BHC	133	132		ug/Kg		99	65 - 137
delta-BHC	133	138		ug/Kg		103	70 - 143
delta-BHC	133	130		ug/Kg		98	70 - 143
Dieldrin	133	132		ug/Kg		99	70 - 135
Dieldrin	133	121		ug/Kg		91	70 - 135
Endosulfan I	133	130		ug/Kg		97	68 - 135
Endosulfan I	133	118		ug/Kg		89	68 - 135
Endosulfan II	133	131		ug/Kg		98	64 - 130
Endosulfan II	133	120		ug/Kg		90	64 - 130
Endosulfan sulfate	133	133		ug/Kg		100	66 - 143
Endosulfan sulfate	133	121		ug/Kg		91	66 - 143
Endrin	133	134		ug/Kg		101	68 - 136
Endrin	133	122		ug/Kg		92	68 - 136
Endrin aldehyde	133	122		ug/Kg		92	68 - 132
Endrin aldehyde	133	111		ug/Kg		83	68 - 132
Endrin ketone	133	128		ug/Kg		96	60 - 150
Endrin ketone	133	114		ug/Kg		85	60 - 150
gamma-BHC (Lindane)	133	136		ug/Kg		102	70 - 134
gamma-BHC (Lindane)	133	129		ug/Kg		97	70 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-799834/2-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor	133	129		ug/Kg		97	69 - 134
Heptachlor	133	121		ug/Kg		91	69 - 134
Heptachlor epoxide	133	130		ug/Kg		97	70 - 135
Heptachlor epoxide	133	118		ug/Kg		88	70 - 135
Methoxychlor	133	123		ug/Kg		92	57 - 135
Methoxychlor	133	116		ug/Kg		87	57 - 135
cis-Chlordane	133	131		ug/Kg		98	70 - 136
cis-Chlordane	133	119		ug/Kg		89	70 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	72		10 - 150
DCB Decachlorobiphenyl	73		10 - 150
Tetrachloro-m-xylene	70		10 - 133
Tetrachloro-m-xylene	73		10 - 133

Lab Sample ID: LCSD 460-799834/3-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	133	134		ug/Kg		100	70 - 140	0	30
4,4'-DDD	133	122		ug/Kg		92	70 - 140	1	30
4,4'-DDE	133	134		ug/Kg		101	71 - 137	0	30
4,4'-DDE	133	122		ug/Kg		92	71 - 137	1	30
4,4'-DDT	133	133		ug/Kg		100	63 - 131	0	30
4,4'-DDT	133	121		ug/Kg		91	63 - 131	1	30
Aldrin	133	132		ug/Kg		99	74 - 140	0	30
Aldrin	133	121		ug/Kg		91	74 - 140	1	30
alpha-BHC	133	133		ug/Kg		100	72 - 142	0	30
alpha-BHC	133	126		ug/Kg		94	72 - 142	1	30
beta-BHC	133	137		ug/Kg		103	65 - 137	0	30
beta-BHC	133	130		ug/Kg		97	65 - 137	1	30
delta-BHC	133	138		ug/Kg		104	70 - 143	0	30
delta-BHC	133	129		ug/Kg		96	70 - 143	1	30
Dieldrin	133	133		ug/Kg		99	70 - 135	0	30
Dieldrin	133	120		ug/Kg		90	70 - 135	1	30
Endosulfan I	133	130		ug/Kg		97	68 - 135	0	30
Endosulfan I	133	117		ug/Kg		87	68 - 135	1	30
Endosulfan II	133	132		ug/Kg		99	64 - 130	0	30
Endosulfan II	133	119		ug/Kg		89	64 - 130	1	30
Endosulfan sulfate	133	134		ug/Kg		100	66 - 143	0	30
Endosulfan sulfate	133	120		ug/Kg		90	66 - 143	1	30
Endrin	133	134		ug/Kg		101	68 - 136	0	30
Endrin	133	121		ug/Kg		91	68 - 136	1	30
Endrin aldehyde	133	123		ug/Kg		92	68 - 132	1	30
Endrin aldehyde	133	110		ug/Kg		83	68 - 132	1	30
Endrin ketone	133	127		ug/Kg		95	60 - 150	0	30
Endrin ketone	133	112		ug/Kg		84	60 - 150	2	30

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-799834/3-A

Matrix: Solid

Analysis Batch: 799955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799834

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
gamma-BHC (Lindane)	133	137		ug/Kg		102	70 - 134	0	30
gamma-BHC (Lindane)	133	128		ug/Kg		96	70 - 134	1	30
Heptachlor	133	129		ug/Kg		97	69 - 134	0	30
Heptachlor	133	120		ug/Kg		90	69 - 134	1	30
Heptachlor epoxide	133	130		ug/Kg		97	70 - 135	0	30
Heptachlor epoxide	133	117		ug/Kg		88	70 - 135	1	30
Methoxychlor	133	123		ug/Kg		92	57 - 135	0	30
Methoxychlor	133	114		ug/Kg		86	57 - 135	1	30
cis-Chlordane	133	131		ug/Kg		98	70 - 136	0	30
cis-Chlordane	133	118		ug/Kg		88	70 - 136	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	72		10 - 150
DCB Decachlorobiphenyl	72		10 - 150
Tetrachloro-m-xylene	70		10 - 133
Tetrachloro-m-xylene	73		10 - 133

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-799833/1-A

Matrix: Solid

Analysis Batch: 799904

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1016	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1221	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1221	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1232	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1232	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1242	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1242	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1248	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1248	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1254	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1254	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1260	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1260	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor-1262	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor-1262	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1268	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Aroclor 1268	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1
Polychlorinated biphenyls, Total	67	U	67	18	ug/Kg		09/04/21 13:08	09/05/21 13:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	105		37 - 150	09/04/21 13:08	09/05/21 13:10	1
DCB Decachlorobiphenyl	107		37 - 150	09/04/21 13:08	09/05/21 13:10	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-799833/1-A

Matrix: Solid

Analysis Batch: 799904

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799833

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Tetrachloro-m-xylene	104		54 - 150	09/04/21 13:08	09/05/21 13:10	1			
Tetrachloro-m-xylene	97		54 - 150	09/04/21 13:08	09/05/21 13:10	1			

Lab Sample ID: LCS 460-799833/2-A

Matrix: Solid

Analysis Batch: 799904

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799833

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor 1016	333	428		ug/Kg		128	65 - 133		
Aroclor 1016	333	436		ug/Kg		131	65 - 133		
Aroclor 1260	333	445		ug/Kg		134	71 - 150		
Aroclor 1260	333	463		ug/Kg		139	71 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	102		37 - 150
DCB Decachlorobiphenyl	106		37 - 150
Tetrachloro-m-xylene	101		54 - 150
Tetrachloro-m-xylene	100		54 - 150

Lab Sample ID: LCSD 460-799833/3-A

Matrix: Solid

Analysis Batch: 799904

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 799833

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Aroclor 1016	333	425		ug/Kg		128	65 - 133	1	30
Aroclor 1016	333	431		ug/Kg		129	65 - 133	1	30
Aroclor 1260	333	437		ug/Kg		131	71 - 150	2	30
Aroclor 1260	333	455		ug/Kg		137	71 - 150	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	102		37 - 150
DCB Decachlorobiphenyl	105		37 - 150
Tetrachloro-m-xylene	101		54 - 150
Tetrachloro-m-xylene	98		54 - 150

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 460-800298/1-A

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/08/21 20:14	09/09/21 07:58	1
Silvex (2,4,5-TP)	33	U	33	3.5	ug/Kg		09/08/21 20:14	09/09/21 07:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	84		65 - 150	09/08/21 20:14	09/09/21 07:58	1
2,4-Dichlorophenylacetic acid	108		65 - 150	09/08/21 20:14	09/09/21 07:58	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: LCS 460-800298/2-A

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	8.33	11.1	J	ug/Kg		134	58 - 150
Silvex (2,4,5-TP)	8.33	10.4	J	ug/Kg		124	58 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	105		65 - 150
2,4-Dichlorophenylacetic acid	127		65 - 150

Lab Sample ID: LCSD 460-800298/3-A

Matrix: Solid

Analysis Batch: 800372

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 800298

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	8.33	11.0	J	ug/Kg		132	58 - 150	6	30
Silvex (2,4,5-TP)	8.33	11.1	J	ug/Kg		133	58 - 150	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	93		65 - 150
2,4-Dichlorophenylacetic acid	117		65 - 150

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-168908/1-B

Matrix: Solid

Analysis Batch: 168794

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluoroheptanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorooctanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorononanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorodecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorotridecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorotetradecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorobutanesulfonic acid	2.00	U	2.00	0.40	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorohexanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorooctanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
NEtFOSAA	2.00	U	2.00	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
NMeFOSAA	2.00	U	2.00	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluoroheptanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorodecanesulfonic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorooctanesulfonamide	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorobutanoic acid	2.00	U	2.00	0.80	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluoroundecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluorododecanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
6:2 Fluorotelomer sulfonic acid	2.00	U	2.00	0.60	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
8:2 Fluorotelomer sulfonic acid	3.00	U	3.00	0.60	ug/Kg		09/08/21 08:57	09/08/21 16:20	1
Perfluoropentanoic acid	0.60	U	0.60	0.20	ug/Kg		09/08/21 08:57	09/08/21 16:20	1

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-8:2 FTS	120		10 - 178	09/08/21 08:57	09/08/21 16:20	1
M2-6:2 FTS	121		10 - 182	09/08/21 08:57	09/08/21 16:20	1
13C5 PFHxA	106		11 - 138	09/08/21 08:57	09/08/21 16:20	1
13C4 PFHpA	108		15 - 139	09/08/21 08:57	09/08/21 16:20	1
13C8 PFOA	111		21 - 133	09/08/21 08:57	09/08/21 16:20	1
13C9 PFNA	107		15 - 145	09/08/21 08:57	09/08/21 16:20	1
13C6 PFDA	125		21 - 134	09/08/21 08:57	09/08/21 16:20	1
13C7 PFUnA	132		15 - 138	09/08/21 08:57	09/08/21 16:20	1
13C2-PFDoDA	112		28 - 126	09/08/21 08:57	09/08/21 16:20	1
13C2 PFTeDA	111		10 - 138	09/08/21 08:57	09/08/21 16:20	1
13C3 PFBS	129		23 - 130	09/08/21 08:57	09/08/21 16:20	1
13C3 PFHxS	110		24 - 136	09/08/21 08:57	09/08/21 16:20	1
13C8 PFOS	104		31 - 130	09/08/21 08:57	09/08/21 16:20	1
d3-NMeFOSAA	110		10 - 172	09/08/21 08:57	09/08/21 16:20	1
d5-NEtFOSAA	118		10 - 176	09/08/21 08:57	09/08/21 16:20	1
13C8 FOSA	122		25 - 135	09/08/21 08:57	09/08/21 16:20	1
13C4 PFBA	107		12 - 137	09/08/21 08:57	09/08/21 16:20	1
13C5 PFPeA	115		12 - 135	09/08/21 08:57	09/08/21 16:20	1

Lab Sample ID: LCS 410-168908/2-B

Matrix: Solid

Analysis Batch: 168794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.0	28.14		ug/Kg		113	61 - 147
Perfluoroheptanoic acid	25.0	30.44		ug/Kg		122	61 - 151
Perfluorooctanoic acid	25.0	25.96		ug/Kg		104	62 - 144
Perfluorononanoic acid	25.0	28.54		ug/Kg		114	62 - 148
Perfluorodecanoic acid	25.0	26.64		ug/Kg		107	62 - 142
Perfluorotridecanoic acid	25.0	29.43		ug/Kg		118	57 - 152
Perfluorotetradecanoic acid	25.0	26.80		ug/Kg		107	60 - 147
Perfluorobutanesulfonic acid	22.1	20.82		ug/Kg		94	62 - 137
Perfluorohexanesulfonic acid	22.8	21.97		ug/Kg		96	57 - 135
Perfluorooctanesulfonic acid	23.1	23.71		ug/Kg		102	48 - 134
NEtFOSAA	25.0	23.58		ug/Kg		94	50 - 140
NMeFOSAA	25.0	27.93		ug/Kg		112	53 - 149
Perfluoroheptanesulfonic acid	23.8	24.30		ug/Kg		102	67 - 138
Perfluorodecanesulfonic acid	24.1	23.02		ug/Kg		96	60 - 142
Perfluorooctanesulfonamide	25.0	25.78		ug/Kg		103	52 - 132
Perfluorobutanoic acid	25.0	25.97		ug/Kg		104	50 - 185
Perfluoroundecanoic acid	25.0	27.35		ug/Kg		109	62 - 144
Perfluorododecanoic acid	25.0	29.01		ug/Kg		116	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	23.49		ug/Kg		99	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	25.88		ug/Kg		108	50 - 147
Perfluoropentanoic acid	25.0	28.37		ug/Kg		113	69 - 144

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	94		10 - 178
M2-6:2 FTS	102		10 - 182
13C5 PFHxA	102		11 - 138
13C4 PFHpA	103		15 - 139
13C8 PFOA	102		21 - 133

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-168908/2-B

Matrix: Solid

Analysis Batch: 168794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168908

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C9 PFNA	103		15 - 145
13C6 PFDA	105		21 - 134
13C7 PFUnA	115		15 - 138
13C2-PFDoDA	106		28 - 126
13C2 PFTeDA	109		10 - 138
13C3 PFBS	124		23 - 130
13C3 PFHxS	101		24 - 136
13C8 PFOS	99		31 - 130
d3-NMeFOSAA	102		10 - 172
d5-NEtFOSAA	105		10 - 176
13C8 FOSA	107		25 - 135
13C4 PFBA	104		12 - 137
13C5 PFPeA	109		12 - 135

Lab Sample ID: LCSD 410-168908/3-B

Matrix: Solid

Analysis Batch: 168794

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 168908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Perfluorohexanoic acid	25.0	28.85		ug/Kg		115	61 - 147	2		30
Perfluoroheptanoic acid	25.0	30.46		ug/Kg		122	61 - 151	0		30
Perfluorooctanoic acid	25.0	24.88		ug/Kg		100	62 - 144	4		30
Perfluorononanoic acid	25.0	30.08		ug/Kg		120	62 - 148	5		30
Perfluorodecanoic acid	25.0	26.89		ug/Kg		108	62 - 142	1		30
Perfluorotridecanoic acid	25.0	32.35		ug/Kg		129	57 - 152	9		30
Perfluorotetradecanoic acid	25.0	27.38		ug/Kg		110	60 - 147	2		30
Perfluorobutanesulfonic acid	22.1	21.00		ug/Kg		95	62 - 137	1		30
Perfluorohexanesulfonic acid	22.8	21.61		ug/Kg		95	57 - 135	2		30
Perfluorooctanesulfonic acid	23.1	23.20		ug/Kg		100	48 - 134	2		30
NEtFOSAA	25.0	25.35		ug/Kg		101	50 - 140	7		30
NMeFOSAA	25.0	26.30		ug/Kg		105	53 - 149	6		30
Perfluoroheptanesulfonic acid	23.8	23.87		ug/Kg		100	67 - 138	2		30
Perfluorodecanesulfonic acid	24.1	24.70		ug/Kg		103	60 - 142	7		30
Perfluorooctanesulfonamide	25.0	26.43		ug/Kg		106	52 - 132	2		30
Perfluorobutanoic acid	25.0	26.11		ug/Kg		104	50 - 185	1		30
Perfluoroundecanoic acid	25.0	27.90		ug/Kg		112	62 - 144	2		30
Perfluorododecanoic acid	25.0	29.49		ug/Kg		118	60 - 147	2		30
6:2 Fluorotelomer sulfonic acid	23.7	23.29		ug/Kg		98	53 - 137	1		30
8:2 Fluorotelomer sulfonic acid	24.0	23.83		ug/Kg		99	50 - 147	8		30
Perfluoropentanoic acid	25.0	28.00		ug/Kg		112	69 - 144	1		30

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
M2-8:2 FTS	106		10 - 178
M2-6:2 FTS	112		10 - 182
13C5 PFHxA	104		11 - 138
13C4 PFHpA	108		15 - 139
13C8 PFOA	112		21 - 133
13C9 PFNA	101		15 - 145
13C6 PFDA	115		21 - 134

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-168908/3-B

Matrix: Solid

Analysis Batch: 168794

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 168908

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C7 PUnA	118		15 - 138
13C2-PFDoDA	104		28 - 126
13C2 PFTeDA	109		10 - 138
13C3 PFBS	128		23 - 130
13C3 PFHxS	113		24 - 136
13C8 PFOS	100		31 - 130
d3-NMeFOSAA	111		10 - 172
d5-NEtFOSAA	103		10 - 176
13C8 FOSA	102		25 - 135
13C4 PFBA	108		12 - 137
13C5 PFPeA	113		12 - 135

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-800569/1-A

Matrix: Solid

Analysis Batch: 800823

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800569

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	1.0	U	1.0	0.089	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Arsenic	1.0	U	1.0	0.10	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Barium	2.0	U	2.0	0.15	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Beryllium	0.40	U	0.40	0.057	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Cadmium	1.0	U	1.0	0.11	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Chromium	0.637	J	2.0	0.17	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Copper	2.0	U	2.0	0.22	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Manganese	4.0	U	4.0	0.40	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Nickel	2.0	U	2.0	0.19	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Lead	0.60	U	0.60	0.20	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Selenium	1.3	U	1.3	0.12	mg/Kg		09/10/21 07:58	09/11/21 00:10	1
Zinc	8.0	U	8.0	2.3	mg/Kg		09/10/21 07:58	09/11/21 00:10	1

Lab Sample ID: LCSSRM 460-800569/2-A

Matrix: Solid

Analysis Batch: 800823

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800569

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Silver	33.6	20.80		mg/Kg		61.9	48.2 - 73.5	
Arsenic	140	143.7		mg/Kg		102.6	82.9 - 117.9	
Barium	202	213.5		mg/Kg		105.7	81.2 - 118.3	
Beryllium	42.6	42.59		mg/Kg		100	81.0 - 119.0	
Cadmium	97.9	98.65		mg/Kg		100.8	80.0 - 119.5	
Chromium	60.4	57.55		mg/Kg		95.3	80.3 - 119.7	
Copper	122	122.0		mg/Kg		100	82.8 - 117.2	

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 460-800569/2-A
Matrix: Solid
Analysis Batch: 800823

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 800569

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	457	471.4		mg/Kg		103.1	79.6 - 120.6
Nickel	151	152.3		mg/Kg		100.9	79.5 - 121.2
Lead	56.7	56.95		mg/Kg		100.4	82.9 - 116.9
Selenium	35.5	36.21		mg/Kg		102.0	77.5 - 122.3
Zinc	186	187.0		mg/Kg		100.5	79.0 - 121.0

Lab Sample ID: 460-242245-B-5-H MS
Matrix: Solid
Analysis Batch: 800823

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 800569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	0.33	J	5.61	5.54		mg/Kg	⊛	93	75 - 125
Arsenic	4.8		11.2	15.36		mg/Kg	⊛	94	75 - 125
Barium	130		11.2	125.1	4	mg/Kg	⊛	-42	75 - 125
Beryllium	0.41	J	5.61	5.79		mg/Kg	⊛	96	75 - 125
Cadmium	1.2		5.61	6.08		mg/Kg	⊛	87	75 - 125
Chromium	19.9	B	11.2	26.61	N	mg/Kg	⊛	60	75 - 125
Copper	22.3		11.2	34.85		mg/Kg	⊛	112	75 - 125
Manganese	222		56.1	296.6	N	mg/Kg	⊛	133	75 - 125
Nickel	13.6		11.2	23.20		mg/Kg	⊛	86	75 - 125
Lead	553		5.61	535.3	4	mg/Kg	⊛	-316	75 - 125
Selenium	0.48	J	11.2	11.20		mg/Kg	⊛	96	75 - 125
Zinc	132		56.1	159.3	N	mg/Kg	⊛	49	75 - 125

Lab Sample ID: 460-242245-B-5-G DU
Matrix: Solid
Analysis Batch: 800823

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 800569

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	0.33	J	0.303	J	mg/Kg	⊛	9	20
Arsenic	4.8		4.55		mg/Kg	⊛	5	20
Barium	130		113.9		mg/Kg	⊛	13	20
Beryllium	0.41	J	0.372	J	mg/Kg	⊛	11	20
Cadmium	1.2		0.846	J	mg/Kg	⊛	35	20
Chromium	19.9	B	16.81		mg/Kg	⊛	17	20
Copper	22.3		24.45		mg/Kg	⊛	9	20
Manganese	222		229.3		mg/Kg	⊛	3	20
Nickel	13.6		13.16		mg/Kg	⊛	3	20
Lead	553		529.8		mg/Kg	⊛	4	20
Selenium	0.48	J	0.450	J	mg/Kg	⊛	7	20
Zinc	132		135.5		mg/Kg	⊛	3	20

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-799965/1-A

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799965

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.0040	mg/Kg		09/07/21 04:13	09/07/21 09:23	1

Lab Sample ID: LCSSRM 460-799965/2-A ^40

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799965

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	16.5	16.27		mg/Kg		98.6	74.5 - 124.8

Lab Sample ID: 460-241919-A-4-G MS

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799965

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.031		0.101	0.127		mg/Kg	☼	94	80 - 120

Lab Sample ID: 460-241919-A-4-F DU

Matrix: Solid

Analysis Batch: 800040

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 799965

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.031		0.0331		mg/Kg	☼	5	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-800986/1-A

Matrix: Solid

Analysis Batch: 801013

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 800986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0	U	2.0	0.85	mg/Kg		09/13/21 09:29	09/13/21 13:00	1

Lab Sample ID: LCSi 460-800986/3-A

Matrix: Solid

Analysis Batch: 801013

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800986

Analyte	Spike Added	LCSi Result	LCSi Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	637.9		mg/Kg		90	80 - 120

Lab Sample ID: LCSSRM 460-800986/2-A

Matrix: Solid

Analysis Batch: 801013

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 800986

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	12.3	12.47		mg/Kg		101.0	84.0 - 114.6

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-242245-B-19-H MSS

Matrix: Solid

Analysis Batch: 801013

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 800986

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.3	U	45.2	42.68		mg/Kg	✱	94	75 - 125

Lab Sample ID: 460-242245-B-19-I MSI

Matrix: Solid

Analysis Batch: 801013

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 800986

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	2.3	U	800	743.1		mg/Kg	✱	93	75 - 125

Lab Sample ID: 460-242245-B-19-G DU

Matrix: Solid

Analysis Batch: 801013

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 800986

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	2.3	U	2.3	U	mg/Kg	✱	NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MRL 460-799927/1-A

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799927

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.0100	0.0134		mg/L		134	50 - 150

Lab Sample ID: MB 460-799931/1-A

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 799931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0055	mg/Kg		09/05/21 15:08	09/06/21 19:32	1

Lab Sample ID: LCSSRM 460-799931/2-A ^20

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	95.3	71.52		mg/Kg		75.0	23.7 - 123.8

Lab Sample ID: 460-242115-F-11-J MS

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.26	U	5.25	4.59		mg/Kg	✱	88	11 - 108

Eurofins Edison

QC Sample Results

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 460-242115-F-11-K MSD

Matrix: Solid

Analysis Batch: 799943

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 799931

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.26	U	5.25	5.72	N	mg/Kg	☆	109	11 - 108	22	40

Method: Moisture - Percent Moisture

Lab Sample ID: 460-242141-7 DU

Matrix: Solid

Analysis Batch: 800030

Client Sample ID: 089_LB-47-15-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	16.5		16.5		%		0	20
Percent Solids	83.5		83.5		%		0	20

Lab Sample ID: 460-242141-11 DU

Matrix: Solid

Analysis Batch: 800030

Client Sample ID: 093_LB-27-15-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	15.6		15.6		%		0	20
Percent Solids	84.4		84.4		%		0	20

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

GC/MS VOA

Prep Batch: 799762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	5035	
460-242141-2	084_DUP-5	Total/NA	Solid	5035	
460-242141-3	085_LB-49-8-10	Total/NA	Solid	5035	
460-242141-4	086_LB-49-15-16	Total/NA	Solid	5035	
460-242141-5	087_LB-48-5-7	Total/NA	Solid	5035	
460-242141-6	088_LB-48-15-16	Total/NA	Solid	5035	
460-242141-7	089_LB-47-15-16	Total/NA	Solid	5035	
460-242141-8	090_HS-1-8-10	Total/NA	Solid	5035	
460-242141-9	091_HS-1-10-12	Total/NA	Solid	5035	
460-242141-10	092_LB-27-6-8	Total/NA	Solid	5035	
460-242141-11	093_LB-27-15-16	Total/NA	Solid	5035	
460-242141-12	094_HS-2-8-10	Total/NA	Solid	5035	
460-242141-13	095_HS-2-10-12	Total/NA	Solid	5035	
460-242141-7 MS	089_LB-47-15-16	Total/NA	Solid	5035	
460-242141-7 MSD	089_LB-47-15-16	Total/NA	Solid	5035	
460-242141-11 MS	093_LB-27-15-16	Total/NA	Solid	5035	
460-242141-11 MSD	093_LB-27-15-16	Total/NA	Solid	5035	

Analysis Batch: 799878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	8260D	799762
460-242141-2	084_DUP-5	Total/NA	Solid	8260D	799762
460-242141-4	086_LB-49-15-16	Total/NA	Solid	8260D	799762
460-242141-5	087_LB-48-5-7	Total/NA	Solid	8260D	799762
460-242141-6	088_LB-48-15-16	Total/NA	Solid	8260D	799762
460-242141-7	089_LB-47-15-16	Total/NA	Solid	8260D	799762
460-242141-9	091_HS-1-10-12	Total/NA	Solid	8260D	799762
460-242141-10	092_LB-27-6-8	Total/NA	Solid	8260D	799762
460-242141-12	094_HS-2-8-10	Total/NA	Solid	8260D	799762
460-242141-13	095_HS-2-10-12	Total/NA	Solid	8260D	799762
MB 460-799878/8	Method Blank	Total/NA	Solid	8260D	
LCS 460-799878/4	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-799878/5	Lab Control Sample Dup	Total/NA	Solid	8260D	
460-242141-7 MS	089_LB-47-15-16	Total/NA	Solid	8260D	799762
460-242141-7 MSD	089_LB-47-15-16	Total/NA	Solid	8260D	799762
460-242141-11 MS	093_LB-27-15-16	Total/NA	Solid	8260D	799762
460-242141-11 MSD	093_LB-27-15-16	Total/NA	Solid	8260D	799762

Analysis Batch: 799950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-8	090_HS-1-8-10	Total/NA	Solid	8260D	799762
460-242141-11	093_LB-27-15-16	Total/NA	Solid	8260D	799762
MB 460-799950/7	Method Blank	Total/NA	Solid	8260D	
LCS 460-799950/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-799950/4	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 800180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-14	096_TB-5	Total/NA	Water	8260D	
MB 460-800180/10	Method Blank	Total/NA	Water	8260D	
LCS 460-800180/6	Lab Control Sample	Total/NA	Water	8260D	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

GC/MS VOA (Continued)

Analysis Batch: 800180 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 460-800180/7	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 800337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-3	085_LB-49-8-10	Total/NA	Solid	8260D	799762
MB 460-800337/6	Method Blank	Total/NA	Solid	8260D	
LCS 460-800337/3	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 460-800337/4	Lab Control Sample Dup	Total/NA	Solid	8260D	

GC/MS Semi VOA

Prep Batch: 799848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	3546	
460-242141-2	084_DUP-5	Total/NA	Solid	3546	
MB 460-799848/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799848/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799848/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-242115-F-11-A MS	Matrix Spike	Total/NA	Solid	3546	
460-242115-F-11-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 799863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-799848/1-A	Method Blank	Total/NA	Solid	8270E	799848
LCS 460-799848/2-A	Lab Control Sample	Total/NA	Solid	8270E	799848
LCSD 460-799848/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	799848
460-242115-F-11-A MS	Matrix Spike	Total/NA	Solid	8270E	799848
460-242115-F-11-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8270E	799848

Analysis Batch: 799926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	8270E	799848
460-242141-2	084_DUP-5	Total/NA	Solid	8270E	799848

GC Semi VOA

Prep Batch: 799833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	3546	
460-242141-2	084_DUP-5	Total/NA	Solid	3546	
MB 460-799833/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799833/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799833/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 799834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	3546	
460-242141-2	084_DUP-5	Total/NA	Solid	3546	
MB 460-799834/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-799834/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-799834/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

GC Semi VOA

Analysis Batch: 799904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	8082A	799833
460-242141-2	084_DUP-5	Total/NA	Solid	8082A	799833
MB 460-799833/1-A	Method Blank	Total/NA	Solid	8082A	799833
LCS 460-799833/2-A	Lab Control Sample	Total/NA	Solid	8082A	799833
LCSD 460-799833/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	799833

Analysis Batch: 799955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	8081B	799834
460-242141-2	084_DUP-5	Total/NA	Solid	8081B	799834
MB 460-799834/1-A	Method Blank	Total/NA	Solid	8081B	799834
LCS 460-799834/2-A	Lab Control Sample	Total/NA	Solid	8081B	799834
LCSD 460-799834/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	799834

Prep Batch: 800298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	8151A	
460-242141-2	084_DUP-5	Total/NA	Solid	8151A	
MB 460-800298/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 460-800298/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 460-800298/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 800372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	8151A	800298
460-242141-2	084_DUP-5	Total/NA	Solid	8151A	800298
MB 460-800298/1-A	Method Blank	Total/NA	Solid	8151A	800298
LCS 460-800298/2-A	Lab Control Sample	Total/NA	Solid	8151A	800298
LCSD 460-800298/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	800298

LCMS

Analysis Batch: 168794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	537 IDA	168989
460-242141-2	084_DUP-5	Total/NA	Solid	537 IDA	168989
MB 410-168908/1-B	Method Blank	Total/NA	Solid	537 IDA	168989
LCS 410-168908/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	168989
LCSD 410-168908/3-B	Lab Control Sample Dup	Total/NA	Solid	537 IDA	168989

Prep Batch: 168908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	SHAKE	
460-242141-2	084_DUP-5	Total/NA	Solid	SHAKE	
MB 410-168908/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-168908/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
LCSD 410-168908/3-B	Lab Control Sample Dup	Total/NA	Solid	SHAKE	

Cleanup Batch: 168989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	Extract Aliquot	168908

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

LCMS (Continued)

Cleanup Batch: 168989 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-2	084_DUP-5	Total/NA	Solid	Extract Aliquot	168908
MB 410-168908/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	168908
LCS 410-168908/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	168908
LCSD 410-168908/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	168908

Metals

Prep Batch: 799965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	7471B	
460-242141-2	084_DUP-5	Total/NA	Solid	7471B	
MB 460-799965/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-799965/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-241919-A-4-G MS	Matrix Spike	Total/NA	Solid	7471B	
460-241919-A-4-F DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 800040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	7471B	799965
460-242141-2	084_DUP-5	Total/NA	Solid	7471B	799965
MB 460-799965/1-A	Method Blank	Total/NA	Solid	7471B	799965
LCSSRM 460-799965/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	799965
460-241919-A-4-G MS	Matrix Spike	Total/NA	Solid	7471B	799965
460-241919-A-4-F DU	Duplicate	Total/NA	Solid	7471B	799965

Prep Batch: 800569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	3050B	
460-242141-2	084_DUP-5	Total/NA	Solid	3050B	
MB 460-800569/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-800569/2-A	Lab Control Sample	Total/NA	Solid	3050B	
460-242245-B-5-H MS	Matrix Spike	Total/NA	Solid	3050B	
460-242245-B-5-G DU	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 800823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-2	084_DUP-5	Total/NA	Solid	6020B	800569
MB 460-800569/1-A	Method Blank	Total/NA	Solid	6020B	800569
LCSSRM 460-800569/2-A	Lab Control Sample	Total/NA	Solid	6020B	800569
460-242245-B-5-H MS	Matrix Spike	Total/NA	Solid	6020B	800569
460-242245-B-5-G DU	Duplicate	Total/NA	Solid	6020B	800569

Analysis Batch: 800998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	6020B	800569

General Chemistry

Prep Batch: 799927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-799927/1-A	Lab Control Sample	Total/NA	Solid	9012B	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

General Chemistry

Prep Batch: 799931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	9012B	
460-242141-2	084_DUP-5	Total/NA	Solid	9012B	
MB 460-799931/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 460-799931/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	
460-242115-F-11-J MS	Matrix Spike	Total/NA	Solid	9012B	
460-242115-F-11-K MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	

Analysis Batch: 799943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	9012B	799931
460-242141-2	084_DUP-5	Total/NA	Solid	9012B	799931
MB 460-799931/1-A	Method Blank	Total/NA	Solid	9012B	799931
LCSSRM 460-799931/2-A ^2	Lab Control Sample	Total/NA	Solid	9012B	799931
MRL 460-799927/1-A	Lab Control Sample	Total/NA	Solid	9012B	799927
460-242115-F-11-J MS	Matrix Spike	Total/NA	Solid	9012B	799931
460-242115-F-11-K MSD	Matrix Spike Duplicate	Total/NA	Solid	9012B	799931

Analysis Batch: 799991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	7196A	
460-242141-2	084_DUP-5	Total/NA	Solid	7196A	

Analysis Batch: 800030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	Moisture	
460-242141-2	084_DUP-5	Total/NA	Solid	Moisture	
460-242141-3	085_LB-49-8-10	Total/NA	Solid	Moisture	
460-242141-4	086_LB-49-15-16	Total/NA	Solid	Moisture	
460-242141-5	087_LB-48-5-7	Total/NA	Solid	Moisture	
460-242141-6	088_LB-48-15-16	Total/NA	Solid	Moisture	
460-242141-7	089_LB-47-15-16	Total/NA	Solid	Moisture	
460-242141-8	090_HS-1-8-10	Total/NA	Solid	Moisture	
460-242141-9	091_HS-1-10-12	Total/NA	Solid	Moisture	
460-242141-10	092_LB-27-6-8	Total/NA	Solid	Moisture	
460-242141-11	093_LB-27-15-16	Total/NA	Solid	Moisture	
460-242141-12	094_HS-2-8-10	Total/NA	Solid	Moisture	
460-242141-13	095_HS-2-10-12	Total/NA	Solid	Moisture	
460-242115-E-11 MSI	Matrix Spike	Total/NA	Solid	Moisture	
460-242115-E-11 MSS	Matrix Spike	Total/NA	Solid	Moisture	
460-242141-7 MS	089_LB-47-15-16	Total/NA	Solid	Moisture	
460-242141-7 MSD	089_LB-47-15-16	Total/NA	Solid	Moisture	
460-242141-11 MS	093_LB-27-15-16	Total/NA	Solid	Moisture	
460-242141-11 MSD	093_LB-27-15-16	Total/NA	Solid	Moisture	
460-242141-7 DU	089_LB-47-15-16	Total/NA	Solid	Moisture	
460-242141-11 DU	093_LB-27-15-16	Total/NA	Solid	Moisture	

Prep Batch: 800986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	3060A	
460-242141-2	084_DUP-5	Total/NA	Solid	3060A	
MB 460-800986/1-A	Method Blank	Total/NA	Solid	3060A	

Eurofins Edison

QC Association Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

General Chemistry (Continued)

Prep Batch: 800986 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSI 460-800986/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-800986/2-A	Lab Control Sample	Total/NA	Solid	3060A	
460-242245-B-19-H MSS	Matrix Spike	Total/NA	Solid	3060A	
460-242245-B-19-I MSI	Matrix Spike	Total/NA	Solid	3060A	
460-242245-B-19-G DU	Duplicate	Total/NA	Solid	3060A	

Analysis Batch: 801013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-242141-1	083_LB-28_15-16	Total/NA	Solid	7196A	800986
460-242141-2	084_DUP-5	Total/NA	Solid	7196A	800986
MB 460-800986/1-A	Method Blank	Total/NA	Solid	7196A	800986
LCSI 460-800986/3-A	Lab Control Sample	Total/NA	Solid	7196A	800986
LCSSRM 460-800986/2-A	Lab Control Sample	Total/NA	Solid	7196A	800986
460-242245-B-19-H MSS	Matrix Spike	Total/NA	Solid	7196A	800986
460-242245-B-19-I MSI	Matrix Spike	Total/NA	Solid	7196A	800986
460-242245-B-19-G DU	Duplicate	Total/NA	Solid	7196A	800986

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 083_LB-28_15-16

Lab Sample ID: 460-242141-1

Date Collected: 09/02/21 18:05

Matrix: Solid

Date Received: 09/03/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 083_LB-28_15-16

Lab Sample ID: 460-242141-1

Date Collected: 09/02/21 18:05

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:11
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 09:49
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799926	YAH	EET EDI	09/06/21 00:38
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 08:32
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 19:41
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 11:25
Total/NA	Prep	SHAKE			168908	RDL8	ELLE	09/08/21 08:57
Total/NA	Cleanup	Extract Aliquot			168989	RDL8	ELLE	09/08/21 10:56
Total/NA	Analysis	537 IDA		1	168794	MT26	ELLE	09/08/21 18:16
Total/NA	Prep	3050B			800569	SXC	EET EDI	09/10/21 07:58
Total/NA	Analysis	6020B		1	800998	MDC	EET EDI	09/13/21 13:09
Total/NA	Prep	7471B			799965	TJS	EET EDI	09/07/21 04:13
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 09:42
Total/NA	Prep	3060A			800986	RAK	EET EDI	09/13/21 09:29 - 09/13/21 11:00 ¹
Total/NA	Analysis	7196A		1	801013	RAK	EET EDI	09/13/21 14:55
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 19:59

Client Sample ID: 084_DUP-5

Lab Sample ID: 460-242141-2

Date Collected: 09/02/21 18:10

Matrix: Solid

Date Received: 09/03/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	799991	TJW	EET EDI	09/07/21 06:53
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 10:00

Client Sample ID: 084_DUP-5

Lab Sample ID: 460-242141-2

Date Collected: 09/02/21 18:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:12
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 10:11

Eurofins Edison

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 084_DUP-5

Date Collected: 09/02/21 18:10

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-2

Matrix: Solid

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			799848	DMS	EET EDI	09/04/21 16:35
Total/NA	Analysis	8270E		1	799926	YAH	EET EDI	09/06/21 00:55
Total/NA	Prep	3546			799834	ZXB	EET EDI	09/04/21 13:11
Total/NA	Analysis	8081B		1	799955	FAM	EET EDI	09/07/21 08:44
Total/NA	Prep	3546			799833	ZXB	EET EDI	09/04/21 13:08
Total/NA	Analysis	8082A		1	799904	FAM	EET EDI	09/05/21 20:03
Total/NA	Prep	8151A			800298	AFR	EET EDI	09/08/21 20:14
Total/NA	Analysis	8151A		1	800372	SAK	EET EDI	09/09/21 14:42
Total/NA	Prep	SHAKE			168908	RDL8	ELLE	09/08/21 08:57
Total/NA	Cleanup	Extract Aliquot			168989	RDL8	ELLE	09/08/21 10:56
Total/NA	Analysis	537 IDA		1	168794	MT26	ELLE	09/08/21 18:27
Total/NA	Prep	3050B			800569	SXC	EET EDI	09/10/21 07:58
Total/NA	Analysis	6020B		1	800823	VAD	EET EDI	09/11/21 00:43
Total/NA	Prep	7471B			799965	TJS	EET EDI	09/07/21 04:13
Total/NA	Analysis	7471B		1	800040	TJS	EET EDI	09/07/21 09:44
Total/NA	Prep	3060A			800986	RAK	EET EDI	09/13/21 09:29 - 09/13/21 11:00 ¹
Total/NA	Analysis	7196A		1	801013	RAK	EET EDI	09/13/21 14:55
Total/NA	Prep	9012B			799931	VBG	EET EDI	09/05/21 15:08
Total/NA	Analysis	9012B		1	799943	VBG	EET EDI	09/06/21 20:03

Client Sample ID: 085_LB-49-8-10

Date Collected: 09/02/21 17:00

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Client Sample ID: 085_LB-49-8-10

Date Collected: 09/02/21 17:00

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-3

Matrix: Solid

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	A/M	EET EDI	09/03/21 23:15
Total/NA	Analysis	8260D		1	800337	AAT	EET EDI	09/09/21 13:43

Client Sample ID: 086_LB-49-15-16

Date Collected: 09/02/21 17:05

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 086_LB-49-15-16

Lab Sample ID: 460-242141-4

Date Collected: 09/02/21 17:05

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:16
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 10:33

Client Sample ID: 087_LB-48-5-7

Lab Sample ID: 460-242141-5

Date Collected: 09/02/21 17:10

Matrix: Solid

Date Received: 09/03/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Client Sample ID: 087_LB-48-5-7

Lab Sample ID: 460-242141-5

Date Collected: 09/02/21 17:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:18
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 10:54

Client Sample ID: 088_LB-48-15-16

Lab Sample ID: 460-242141-6

Date Collected: 09/02/21 17:10

Matrix: Solid

Date Received: 09/03/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Client Sample ID: 088_LB-48-15-16

Lab Sample ID: 460-242141-6

Date Collected: 09/02/21 17:10

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:19
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 11:16

Client Sample ID: 089_LB-47-15-16

Lab Sample ID: 460-242141-7

Date Collected: 09/02/21 17:15

Matrix: Solid

Date Received: 09/03/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 089_LB-47-15-16

Lab Sample ID: 460-242141-7

Date Collected: 09/02/21 17:15

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:21
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 11:37

Client Sample ID: 090_HS-1-8-10

Lab Sample ID: 460-242141-8

Date Collected: 09/02/21 17:25

Matrix: Solid

Date Received: 09/03/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Client Sample ID: 090_HS-1-8-10

Lab Sample ID: 460-242141-8

Date Collected: 09/02/21 17:25

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 71.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:27
Total/NA	Analysis	8260D		1	799950	AAT	EET EDI	09/07/21 07:44

Client Sample ID: 091_HS-1-10-12

Lab Sample ID: 460-242141-9

Date Collected: 09/02/21 17:30

Matrix: Solid

Date Received: 09/03/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Client Sample ID: 091_HS-1-10-12

Lab Sample ID: 460-242141-9

Date Collected: 09/02/21 17:30

Matrix: Solid

Date Received: 09/03/21 08:51

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:28
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 12:20

Client Sample ID: 092_LB-27-6-8

Lab Sample ID: 460-242141-10

Date Collected: 09/02/21 17:30

Matrix: Solid

Date Received: 09/03/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 092_LB-27-6-8

Date Collected: 09/02/21 17:30

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-10

Matrix: Solid

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:30
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 12:41

Client Sample ID: 093_LB-27-15-16

Date Collected: 09/02/21 17:35

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Client Sample ID: 093_LB-27-15-16

Date Collected: 09/02/21 17:35

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-11

Matrix: Solid

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:33
Total/NA	Analysis	8260D		1	799950	AAT	EET EDI	09/07/21 08:06

Client Sample ID: 094_HS-2-8-10

Date Collected: 09/02/21 17:35

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Client Sample ID: 094_HS-2-8-10

Date Collected: 09/02/21 17:35

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-12

Matrix: Solid

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:37
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 13:24

Client Sample ID: 095_HS-2-10-12

Date Collected: 09/02/21 17:40

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	800030	NZP	EET EDI	09/07/21 14:34

Lab Chronicle

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Client Sample ID: 095_HS-2-10-12

Date Collected: 09/02/21 17:40

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-13

Matrix: Solid

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			799762	AVM	EET EDI	09/03/21 23:39
Total/NA	Analysis	8260D		1	799878	AAT	EET EDI	09/05/21 13:45

Client Sample ID: 096_TB-5

Date Collected: 09/02/21 00:00

Date Received: 09/03/21 08:51

Lab Sample ID: 460-242141-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	800180	MZS	EET EDI	09/08/21 16:10

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	12-09-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
8270E	3546	Solid	3 & 4 Methylphenol
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	12-13-21
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	10-12-21
Alaska (UST)	State	17-027	02-21-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-00660	08-08-22
California	State	2792	01-31-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-10-22
Delaware (DW)	State	N/A	01-30-22
Florida	NELAP	E87997	10-12-21
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	10-19-21
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-21
Kentucky (DW)	State	KY90088	12-31-21
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-16-22
Massachusetts	State	M-PA009	10-17-21
Michigan	State	9930	09-29-21
Minnesota	NELAP	042-999-487	11-04-21
Missouri	State	450	11-09-21
Montana (DW)	State	0098	12-31-21
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	09-19-21
New York	NELAP	10670	10-11-21
North Carolina (DW)	State	42705	06-30-22
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22

Eurofins Edison

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-21
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	09-13-21
Rhode Island	State	LAO00338	12-29-21
South Carolina	State	89002	01-26-22
Tennessee	State	02838	01-30-22
Texas	NELAP	T104704194-22-43	10-14-21
USDA	US Federal Programs	P330-19-00197	07-03-22
Vermont	State	VT - 36037	10-27-21
Virginia	NELAP	460182	10-25-21
Washington	State	C457	04-11-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	09-30-21
Wyoming	State	8TMS-L	01-10-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET EDI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET EDI
8081B	Organochlorine Pesticides (GC)	SW846	EET EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET EDI
8151A	Herbicides (GC)	SW846	EET EDI
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	EET EDI
7471B	Mercury (CVAA)	SW846	EET EDI
7196A	Chromium, Hexavalent	SW846	EET EDI
7196A	Chromium, Trivalent (Colorimetric)	SW846	EET EDI
9012B	Cyanide, Total and/or Amenable	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET EDI
3050B	Preparation, Metals	SW846	EET EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET EDI
3546	Microwave Extraction	SW846	EET EDI
5030C	Purge and Trap	SW846	EET EDI
5035	Closed System Purge and Trap	SW846	EET EDI
7471B	Preparation, Mercury	SW846	EET EDI
8151A	Extraction (Herbicides)	SW846	EET EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET EDI
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Langan Engineering & Environmental Svcs
Project/Site: 2455 Third Avenue , Bronx, NY

Job ID: 460-242141-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-242141-1	083_LB-28_15-16	Solid	09/02/21 18:05	09/03/21 08:51
460-242141-2	084_DUP-5	Solid	09/02/21 18:10	09/03/21 08:51
460-242141-3	085_LB-49-8-10	Solid	09/02/21 17:00	09/03/21 08:51
460-242141-4	086_LB-49-15-16	Solid	09/02/21 17:05	09/03/21 08:51
460-242141-5	087_LB-48-5-7	Solid	09/02/21 17:10	09/03/21 08:51
460-242141-6	088_LB-48-15-16	Solid	09/02/21 17:10	09/03/21 08:51
460-242141-7	089_LB-47-15-16	Solid	09/02/21 17:15	09/03/21 08:51
460-242141-8	090_HS-1-8-10	Solid	09/02/21 17:25	09/03/21 08:51
460-242141-9	091_HS-1-10-12	Solid	09/02/21 17:30	09/03/21 08:51
460-242141-10	092_LB-27-6-8	Solid	09/02/21 17:30	09/03/21 08:51
460-242141-11	093_LB-27-15-16	Solid	09/02/21 17:35	09/03/21 08:51
460-242141-12	094_HS-2-8-10	Solid	09/02/21 17:35	09/03/21 08:51
460-242141-13	095_HS-2-10-12	Solid	09/02/21 17:40	09/03/21 08:51
460-242141-14	096_TB-5	Water	09/02/21 00:00	09/03/21 08:51

Chain of Custody Record

518510

Environment Testing
TestAmerica

Address: 2455 Third Ave, Bronx NY

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: NYSDEC

Project Manager: A. Foran

Tel/Email: 973 500 4574

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below

☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

STANDARD

Project Name: 2455 Third Ave

Site: 10051701

PO #

COC No: 1 of COCs

Date: 9/3/21

Carrier:

Sampler:

For Lab Use Only:

Walk-in Client:

Lab Sampling:

Job / SDG No.:

Sample Specific Notes:

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Filtered Sample (Y/N)

Perform MS/MSD (Y/N)

Pesticides

Fungicides

Herbicides

Insecticides

Cyanide

Metals including

Hexavalent and

Trivalent Chromium

PFAS

1,4-dioxane

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

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

Possible Hazard Identification:

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the

Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Special Instructions/QC Requirements & Comments:

ASP B and NYSDEC EDD/ all samples were kept frozen and on ice overnight

Custody Seals Intact: ☐ Yes ☐ No

Custody Seal No.:

Relinquished by: Morgan McBride

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Company: Langan

Company:

Company:

Company:

Company:

Company:

Company:

Date/Time: 9/3/21 0730

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Received by: Langan

Received by:

Received by:

Received by:

Received by:

Received by:

Received by:

Company: Langan

Company:

Company:

Company:

Company:

Company:

Company:

Date/Time: 9/3/21 8:50pm

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Company: Langan

Company:

Company:

Company:

Company:

Company:

Company:

Cooler Temp. (°C): Obs'd:

Cooler Temp. (°C): Obs'd:

Cooler Temp. (°C): Obs'd:

Cooler Temp. (°C): Obs'd:

Cooler Temp. (°C): Obs'd:

Cooler Temp. (°C): Obs'd:

Cooler Temp. (°C): Obs'd:

Cooler Temp. (°C): Obs'd:

Archive for

Archive for

Archive for

Archive for

Archive for

Archive for

Archive for

Archive for

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

4.5 0L

Months

Months

Months

Months

Months

Months

Months

Months

Months

Months

Months

Months

Months

Months

Months

Months

Months

Address: 2455 Third Ave

ITAL-8210

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: MSDE

ITAL-8210

Client Contact		Project Manager: A Forsburg Tel/Email: 973 860 4874		Site Contact: M McGraw Date: 9/3/21	COC No: 2 of 2 COCs
Company Name:		Analysis Turnaround Time		Lab Contact: P. Gilco	Sampler:
Address:		☐ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below _____ ☐ 2 weeks ☒ STANDARD ☐ 1 week ☐ 2 days ☐ 1 day		Carrier:	For Lab Use Only: Walk-in Client: Lab Sampling:
City/State/Zip:				Job / SDG No.:	
Phone:					
Fax:					
Project Name:					
Site:					
P O #					

Sample Identification			Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
09S/HIS-2-10-12			9/12	1740	G	S	4	N	X	
09G/TB-S			9/12	—	—	AQ	2	X		
(M)										

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

Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments:

Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months ☐

4.5°

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Cor'd: _____	Therm ID No.:
Relinquished by: Morgan Mubriche	Company: Vorgan	Received by: K. Sinos San Marcos	Date/Time: 9/3/21 8:50 AM
Relinquished by:	Company:	Received by:	Date/Time: 9/3/21 8:51 AM

Number of Coolers:

.....

	RAW		CORRECTED	
	RAW	CORRECTED	RAW	CORRECTED
Cooler #1	°C	°C		
Cooler #2	°C	°C		
Cooler #3	°C	°C		
Cooler #4	°C	°C		
Cooler #5	°C	°C		
Cooler #6	°C	°C		
Cooler #7	°C	°C		
Cooler #8	°C	°C		
Cooler #9	°C	°C		

[illegible]

Volume of Preservative used (ml):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Date: _____



9/20/2022

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-242141-1

Login Number: 242141

List Number: 1

Creator: Sgro, Angela M

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 460-242141-1

Login Number: 242141

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 2

List Creation: 09/07/21 08:19 PM

Creator: Metzger, Katherine A

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	