



May 31, 2024

## Soil Sampling Summary

The New York City Department of Environmental Protection (DEP) is progressing on construction of the underground storage tanks that will capture millions of gallons of combined sewage and rainwater that would otherwise overflow into the Gowanus Canal during rainstorms. This important project complements the US EPA's on-going Superfund dredging project and will significantly improve the health of the neighborhood. DEP's project will also create new public waterfront open space and amenities for the Gowanus community.

DEP is currently working to construct an underground concrete wall that will support the removal of soil necessary to build the first tank. The construction site is located along the eastern side of the Canal, bounded by Butler Street, Nevins Street and Degraw Street. As a part of our routine soil testing, we have detected lead levels that require publishing soil analysis on our website, per Local Law 72 of 2019.

The soil sampling indicated that the contaminated soil is located in the northwest corner and the center of the project site, totaling approximately 2,550 cubic yards. A small portion of this soil has been excavated with dust controls in place. It was isolated and covered on site to prevent any exposure and then safely transported offsite. The remainder of the lead-impacted soils will be removed when the broader excavation of the tanks beginning in November 2024. That soil will also be isolated and covered before it is transported offsite to a disposal facility.

DEP has a robust community air monitoring program to monitor emissions and protect residents and our workers while we undertake this important project. The monitoring program includes eight automatic monitoring stations around the perimeter of the construction site that operate continuously and monitor air quality for particulate matter and chemicals, including lead. During excavation of the lead-impacted soils, all air quality readings were below public health guidelines.

# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

NYCDEP Gowanus Canal CSO Facilities

## JOB NUMBER

460-302948-1

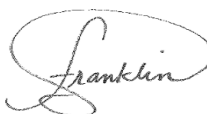
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## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

## Authorization



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# Definitions/Glossary

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

## Qualifiers

### 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.
F3	Duplicate RPD exceeds the control limit
U	Indicates the analyte was analyzed for but not detected.

### General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

## 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)
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: Arecon Ltd  
Project: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

**Job ID: 460-302948-1**

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## CASE NARRATIVE

**Client: Arecon Ltd**

**Project: NYCDEP Gowanus Canal CSO Facilities**

**Report Number: 460-302948-1**

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 4/29/2024 6:00 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 time was 1.7°C.

The following sample was activated for TCLP Pb by the client on 5/8/24: WC-04IC-BR (460-302948-4).

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.

### **METALS - TCLP**

Samples WC-03IC-A(5') (460-302948-1), WC-03IC-BR (460-302948-2), WC-03IC-C(14') (460-302948-3) and WC-04IC-BR (460-302948-4) were analyzed for Metals - TCLP in accordance with EPA SW-846 Method 6020B - TCLP/1311. The samples were leached on 05/01/2024 and 05/12/2024, prepared on 05/03/2024 and 05/14/2024 and analyzed on 05/03/2024 and 05/15/2024.

No difficulties were encountered during the TCLP Metals analysis.

All quality control parameters were within the acceptance limits.

### **METALS - TOTAL (ICP/MS)**

Samples WC-03IC-A(5') (460-302948-1), WC-03IC-BR (460-302948-2), WC-03IC-C(14') (460-302948-3) and WC-04IC-BR (460-302948-4) were analyzed for Metals - Total (ICP/MS) in accordance with EPA SW-846 Method 6020B - Total. The samples were prepared on 05/01/2024 and 05/04/2024 and analyzed on 05/01/2024 and 05/05/2024.

Lead failed the recovery criteria low for the MS of sample 460-302938-1 in batch 460-972423.

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

Lead exceeded the RPD limit for the duplicate of sample 460-302938-1.

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.

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## Case Narrative

Client: Arecon Ltd  
Project: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

**Job ID: 460-302948-1 (Continued)**

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### **PERCENT SOLIDS/PERCENT MOISTURE**

Samples WC-03IC-A(5') (460-302948-1), WC-03IC-BR (460-302948-2), WC-03IC-C(14') (460-302948-3) and WC-04IC-BR (460-302948-4) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 04/30/2024 and 05/03/2024.

Percent Moisture exceeded the RPD limit for the duplicate of sample 460-302929-5. 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.

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## Detection Summary

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

### Client Sample ID: WC-03IC-A(5')

### Lab Sample ID: 460-302948-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lead	281		0.49	0.16	mg/Kg	1		✱	6020B	Total/NA
Lead	0.79		0.012	0.0084	mg/L	10			6020B	TCLP

### Client Sample ID: WC-03IC-BR

### Lab Sample ID: 460-302948-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lead	42.2		0.62	0.21	mg/Kg	1		✱	6020B	Total/NA
Lead	0.14		0.012	0.0084	mg/L	10			6020B	TCLP

### Client Sample ID: WC-03IC-C(14')

### Lab Sample ID: 460-302948-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lead	714		0.60	0.20	mg/Kg	1		✱	6020B	Total/NA
Lead	3.4		0.012	0.0084	mg/L	10			6020B	TCLP

### Client Sample ID: WC-04IC-BR

### Lab Sample ID: 460-302948-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lead	168		0.67	0.22	mg/Kg	1		✱	6020B	Total/NA
Lead	1.5		0.012	0.0084	mg/L	10			6020B	TCLP

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

Client Sample ID: WC-03IC-A(5')

Lab Sample ID: 460-302948-1

Date Collected: 04/26/24 08:44

Matrix: Solid

Date Received: 04/29/24 18:00

## Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.79		0.012	0.0084	mg/L		05/03/24 09:47	05/03/24 14:18	10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	7.8		1.0	1.0	%			04/30/24 17:15	1
Percent Solids (EPA Moisture)	92.2		1.0	1.0	%			04/30/24 17:15	1

Client Sample ID: WC-03IC-A(5')

Lab Sample ID: 460-302948-1

Date Collected: 04/26/24 08:44

Matrix: Solid

Date Received: 04/29/24 18:00

Percent Solids: 92.2

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	281		0.49	0.16	mg/Kg	☆	05/01/24 09:01	05/01/24 16:59	1

Client Sample ID: WC-03IC-BR

Lab Sample ID: 460-302948-2

Date Collected: 04/26/24 08:50

Matrix: Solid

Date Received: 04/29/24 18:00

## Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.14		0.012	0.0084	mg/L		05/03/24 09:47	05/03/24 14:20	10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	26.3		1.0	1.0	%			04/30/24 17:15	1
Percent Solids (EPA Moisture)	73.7		1.0	1.0	%			04/30/24 17:15	1

Client Sample ID: WC-03IC-BR

Lab Sample ID: 460-302948-2

Date Collected: 04/26/24 08:50

Matrix: Solid

Date Received: 04/29/24 18:00

Percent Solids: 73.7

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	42.2		0.62	0.21	mg/Kg	☆	05/01/24 09:01	05/01/24 17:02	1

Client Sample ID: WC-03IC-C(14')

Lab Sample ID: 460-302948-3

Date Collected: 04/26/24 08:53

Matrix: Solid

Date Received: 04/29/24 18:00

## Method: SW846 6020B - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3.4		0.012	0.0084	mg/L		05/03/24 09:47	05/03/24 14:22	10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	25.3		1.0	1.0	%			05/03/24 16:08	1
Percent Solids (EPA Moisture)	74.7		1.0	1.0	%			05/03/24 16:08	1

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# Client Sample Results

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

**Client Sample ID: WC-03IC-C(14')**

Date Collected: 04/26/24 08:53

Date Received: 04/29/24 18:00

**Lab Sample ID: 460-302948-3**

Matrix: Solid

Percent Solids: 74.7

**Method: SW846 6020B - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	714		0.60	0.20	mg/Kg	☆	05/04/24 23:30	05/05/24 12:28	1

**Client Sample ID: WC-04IC-BR**

Date Collected: 04/26/24 08:01

Date Received: 04/29/24 18:00

**Lab Sample ID: 460-302948-4**

Matrix: Solid

**Method: SW846 6020B - Metals (ICP/MS) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.5		0.012	0.0084	mg/L		05/14/24 07:32	05/15/24 10:55	10

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	21.7		1.0	1.0	%			04/30/24 17:15	1
Percent Solids (EPA Moisture)	78.3		1.0	1.0	%			04/30/24 17:15	1

**Client Sample ID: WC-04IC-BR**

Date Collected: 04/26/24 08:01

Date Received: 04/29/24 18:00

**Lab Sample ID: 460-302948-4**

Matrix: Solid

Percent Solids: 78.3

**Method: SW846 6020B - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	168		0.67	0.22	mg/Kg	☆	05/01/24 09:01	05/01/24 17:04	1

# QC Sample Results

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

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

Lab Sample ID: MB 460-972377/1-A

Matrix: Solid

Analysis Batch: 972423

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 972377

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.20	U	0.60	0.20	mg/Kg		05/01/24 09:01	05/01/24 16:26	1

Lab Sample ID: LCSSRM 460-972377/2-A ^3

Matrix: Solid

Analysis Batch: 972423

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 972377

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Lead	92.8	94.23		mg/Kg		101.5	81.8 - 118.5

Lab Sample ID: 460-302938-F-1-E MS

Matrix: Solid

Analysis Batch: 972423

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 972377

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	74.5		5.28	63.73	4	mg/Kg	✱	-204	75 - 125

Lab Sample ID: 460-302938-F-1-D DU

Matrix: Solid

Analysis Batch: 972423

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 972377

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	74.5		55.43	F3	mg/Kg	✱	29	20

Lab Sample ID: MB 460-972845/1-A

Matrix: Solid

Analysis Batch: 972889

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 972845

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00084	U	0.0012	0.00084	mg/L		05/03/24 09:47	05/03/24 13:56	1

Lab Sample ID: LCS 460-972845/2-A ^10

Matrix: Solid

Analysis Batch: 972889

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 972845

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	5.00	5.07		mg/L		101	80 - 120

Lab Sample ID: MB 460-973069/1-A

Matrix: Solid

Analysis Batch: 973122

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 973069

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.20	U	0.60	0.20	mg/Kg		05/04/24 23:30	05/05/24 12:11	1

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# QC Sample Results

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

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

Lab Sample ID: LCSSRM 460-973069/2-A ^3  
Matrix: Solid  
Analysis Batch: 973122

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 973069

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Lead	92.8	89.22		mg/Kg		96.1	81.8 - 118.5

Lab Sample ID: 460-302174-A-6-C MS  
Matrix: Solid  
Analysis Batch: 973122

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 973069

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	22.0		4.26	26.44	4	mg/Kg	✱	105	75 - 125

Lab Sample ID: 460-302174-A-6-B DU  
Matrix: Solid  
Analysis Batch: 973122

Client Sample ID: Duplicate  
Prep Type: Total/NA  
Prep Batch: 973069

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	22.0		18.01		mg/Kg	✱	20	20

Lab Sample ID: MB 460-974700/1-A  
Matrix: Solid  
Analysis Batch: 975071

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 974700

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00084	U	0.0012	0.00084	mg/L		05/14/24 07:32	05/15/24 10:36	1

Lab Sample ID: LCS 460-974700/2-A ^10  
Matrix: Solid  
Analysis Batch: 975071

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 974700

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	5.00	5.01		mg/L		100	80 - 120

Lab Sample ID: LB 460-972442/1-C ^10  
Matrix: Solid  
Analysis Batch: 972889

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 972845

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0084	U	0.012	0.0084	mg/L		05/03/24 09:47	05/03/24 14:25	10

Lab Sample ID: 460-302936-A-2-F MS ^10  
Matrix: Solid  
Analysis Batch: 972889

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 972845

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.21		5.00	5.41		mg/L		104	75 - 125

# QC Sample Results

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

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

Lab Sample ID: 460-302936-A-2-E DU ^10  
Matrix: Solid  
Analysis Batch: 972889

Client Sample ID: Duplicate  
Prep Type: TCLP  
Prep Batch: 972845

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Lead	0.21		0.214		mg/L		3	20

Lab Sample ID: LB 460-974423/1-E ^10  
Matrix: Solid  
Analysis Batch: 975071

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 974700

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0084	U	0.012	0.0084	mg/L		05/14/24 07:32	05/15/24 11:48	10

Lab Sample ID: LB 460-974425/1-E ^10  
Matrix: Solid  
Analysis Batch: 975071

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 974700

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0084	U	0.012	0.0084	mg/L		05/14/24 07:33	05/15/24 12:00	10

Lab Sample ID: 460-303718-B-1-G MS ^10  
Matrix: Solid  
Analysis Batch: 975071

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 974700

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0084	U	5.00	4.98		mg/L		100	75 - 125

Lab Sample ID: 460-303718-B-1-F DU ^10  
Matrix: Solid  
Analysis Batch: 975071

Client Sample ID: Duplicate  
Prep Type: TCLP  
Prep Batch: 974700

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Lead	0.0084	U	0.0084	U	mg/L		NC	20

## Method: Moisture - Percent Moisture

Lab Sample ID: 460-302929-A-5 DU  
Matrix: Solid  
Analysis Batch: 972253

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	3.2		4.3	F3	%		29	20
Percent Solids	96.8		95.7		%		1	20

Lab Sample ID: 460-302420-A-12 DU  
Matrix: Solid  
Analysis Batch: 972906

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	10.8		10.7		%		1	20
Percent Solids	89.2		89.3		%		0.2	20

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# QC Association Summary

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

## Metals

### Prep Batch: 972377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-1	WC-03IC-A(5')	Total/NA	Solid	3050B	
460-302948-2	WC-03IC-BR	Total/NA	Solid	3050B	
460-302948-4	WC-04IC-BR	Total/NA	Solid	3050B	
MB 460-972377/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-972377/2-A ^3	Lab Control Sample	Total/NA	Solid	3050B	
460-302938-F-1-E MS	Matrix Spike	Total/NA	Solid	3050B	
460-302938-F-1-D DU	Duplicate	Total/NA	Solid	3050B	

### Analysis Batch: 972423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-1	WC-03IC-A(5')	Total/NA	Solid	6020B	972377
460-302948-2	WC-03IC-BR	Total/NA	Solid	6020B	972377
460-302948-4	WC-04IC-BR	Total/NA	Solid	6020B	972377
MB 460-972377/1-A	Method Blank	Total/NA	Solid	6020B	972377
LCSSRM 460-972377/2-A ^3	Lab Control Sample	Total/NA	Solid	6020B	972377
460-302938-F-1-E MS	Matrix Spike	Total/NA	Solid	6020B	972377
460-302938-F-1-D DU	Duplicate	Total/NA	Solid	6020B	972377

### Leach Batch: 972442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-1	WC-03IC-A(5')	TCLP	Solid	1311	
460-302948-2	WC-03IC-BR	TCLP	Solid	1311	
460-302948-3	WC-03IC-C(14')	TCLP	Solid	1311	
LB 460-972442/1-C ^10	Method Blank	TCLP	Solid	1311	
460-302936-A-2-F MS ^10	Matrix Spike	TCLP	Solid	1311	
460-302936-A-2-E DU ^10	Duplicate	TCLP	Solid	1311	

### Prep Batch: 972845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-1	WC-03IC-A(5')	TCLP	Solid	3010A	972442
460-302948-2	WC-03IC-BR	TCLP	Solid	3010A	972442
460-302948-3	WC-03IC-C(14')	TCLP	Solid	3010A	972442
LB 460-972442/1-C ^10	Method Blank	TCLP	Solid	3010A	972442
MB 460-972845/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 460-972845/2-A ^10	Lab Control Sample	Total/NA	Solid	3010A	
460-302936-A-2-F MS ^10	Matrix Spike	TCLP	Solid	3010A	972442
460-302936-A-2-E DU ^10	Duplicate	TCLP	Solid	3010A	972442

### Analysis Batch: 972889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-1	WC-03IC-A(5')	TCLP	Solid	6020B	972845
460-302948-2	WC-03IC-BR	TCLP	Solid	6020B	972845
460-302948-3	WC-03IC-C(14')	TCLP	Solid	6020B	972845
LB 460-972442/1-C ^10	Method Blank	TCLP	Solid	6020B	972845
MB 460-972845/1-A	Method Blank	Total/NA	Solid	6020B	972845
LCS 460-972845/2-A ^10	Lab Control Sample	Total/NA	Solid	6020B	972845
460-302936-A-2-F MS ^10	Matrix Spike	TCLP	Solid	6020B	972845
460-302936-A-2-E DU ^10	Duplicate	TCLP	Solid	6020B	972845

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# QC Association Summary

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

## Metals

### Prep Batch: 973069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-3	WC-03IC-C(14')	Total/NA	Solid	3050B	
MB 460-973069/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-973069/2-A ^3	Lab Control Sample	Total/NA	Solid	3050B	
460-302174-A-6-C MS	Matrix Spike	Total/NA	Solid	3050B	
460-302174-A-6-B DU	Duplicate	Total/NA	Solid	3050B	

### Analysis Batch: 973122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-3	WC-03IC-C(14')	Total/NA	Solid	6020B	973069
MB 460-973069/1-A	Method Blank	Total/NA	Solid	6020B	973069
LCSSRM 460-973069/2-A ^3	Lab Control Sample	Total/NA	Solid	6020B	973069
460-302174-A-6-C MS	Matrix Spike	Total/NA	Solid	6020B	973069
460-302174-A-6-B DU	Duplicate	Total/NA	Solid	6020B	973069

### Leach Batch: 974423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-4	WC-04IC-BR	TCLP	Solid	1311	
LB 460-974423/1-E ^10	Method Blank	TCLP	Solid	1311	

### Leach Batch: 974425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 460-974425/1-E ^10	Method Blank	TCLP	Solid	1311	
460-303718-B-1-G MS ^10	Matrix Spike	TCLP	Solid	1311	
460-303718-B-1-F DU ^10	Duplicate	TCLP	Solid	1311	

### Prep Batch: 974700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-4	WC-04IC-BR	TCLP	Solid	3010A	974423
LB 460-974423/1-E ^10	Method Blank	TCLP	Solid	3010A	974423
LB 460-974425/1-E ^10	Method Blank	TCLP	Solid	3010A	974425
MB 460-974700/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 460-974700/2-A ^10	Lab Control Sample	Total/NA	Solid	3010A	
460-303718-B-1-G MS ^10	Matrix Spike	TCLP	Solid	3010A	974425
460-303718-B-1-F DU ^10	Duplicate	TCLP	Solid	3010A	974425

### Analysis Batch: 975071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-4	WC-04IC-BR	TCLP	Solid	6020B	974700
LB 460-974423/1-E ^10	Method Blank	TCLP	Solid	6020B	974700
LB 460-974425/1-E ^10	Method Blank	TCLP	Solid	6020B	974700
MB 460-974700/1-A	Method Blank	Total/NA	Solid	6020B	974700
LCS 460-974700/2-A ^10	Lab Control Sample	Total/NA	Solid	6020B	974700
460-303718-B-1-G MS ^10	Matrix Spike	TCLP	Solid	6020B	974700
460-303718-B-1-F DU ^10	Duplicate	TCLP	Solid	6020B	974700

## General Chemistry

### Analysis Batch: 972253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-1	WC-03IC-A(5')	Total/NA	Solid	Moisture	
460-302948-2	WC-03IC-BR	Total/NA	Solid	Moisture	

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## QC Association Summary

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

### General Chemistry (Continued)

#### Analysis Batch: 972253 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-4	WC-04IC-BR	Total/NA	Solid	Moisture	
460-302776-B-27 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-302776-B-27 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-302929-A-5 DU	Duplicate	Total/NA	Solid	Moisture	

#### Analysis Batch: 972906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-302948-3	WC-03IC-C(14')	Total/NA	Solid	Moisture	
460-303170-D-1 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-303170-D-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-303239-D-3 MSS	Matrix Spike	Total/NA	Solid	Moisture	
460-302420-A-12 DU	Duplicate	Total/NA	Solid	Moisture	



# Lab Chronicle

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

**Client Sample ID: WC-03IC-A(5')**

**Date Collected: 04/26/24 08:44**

**Date Received: 04/29/24 18:00**

**Lab Sample ID: 460-302948-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			972442	YAH	EET EDI	05/01/24 14:46 - 05/02/24 06:46 <sup>1</sup>
TCLP	Prep	3010A			972845	KXN	EET EDI	05/03/24 09:47
TCLP	Analysis	6020B		10	972889	FBT	EET EDI	05/03/24 14:18
Total/NA	Analysis	Moisture		1	972253	CJC	EET EDI	04/30/24 17:15

**Client Sample ID: WC-03IC-A(5')**

**Date Collected: 04/26/24 08:44**

**Date Received: 04/29/24 18:00**

**Lab Sample ID: 460-302948-1**

**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	3050B			972377	KXN	EET EDI	05/01/24 09:01
Total/NA	Analysis	6020B		1	972423	CDC	EET EDI	05/01/24 16:59

**Client Sample ID: WC-03IC-BR**

**Date Collected: 04/26/24 08:50**

**Date Received: 04/29/24 18:00**

**Lab Sample ID: 460-302948-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			972442	YAH	EET EDI	05/01/24 14:46 - 05/02/24 06:46 <sup>1</sup>
TCLP	Prep	3010A			972845	KXN	EET EDI	05/03/24 09:47
TCLP	Analysis	6020B		10	972889	FBT	EET EDI	05/03/24 14:20
Total/NA	Analysis	Moisture		1	972253	CJC	EET EDI	04/30/24 17:15

**Client Sample ID: WC-03IC-BR**

**Date Collected: 04/26/24 08:50**

**Date Received: 04/29/24 18:00**

**Lab Sample ID: 460-302948-2**

**Matrix: Solid**

**Percent Solids: 73.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			972377	KXN	EET EDI	05/01/24 09:01
Total/NA	Analysis	6020B		1	972423	CDC	EET EDI	05/01/24 17:02

**Client Sample ID: WC-03IC-C(14')**

**Date Collected: 04/26/24 08:53**

**Date Received: 04/29/24 18:00**

**Lab Sample ID: 460-302948-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			972442	YAH	EET EDI	05/01/24 14:46 - 05/02/24 06:46 <sup>1</sup>
TCLP	Prep	3010A			972845	KXN	EET EDI	05/03/24 09:47
TCLP	Analysis	6020B		10	972889	FBT	EET EDI	05/03/24 14:22
Total/NA	Analysis	Moisture		1	972906	CJC	EET EDI	05/03/24 16:08

# Lab Chronicle

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

**Client Sample ID: WC-03IC-C(14')**

**Date Collected: 04/26/24 08:53**

**Date Received: 04/29/24 18:00**

**Lab Sample ID: 460-302948-3**

**Matrix: Solid**

**Percent Solids: 74.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			973069	GAE	EET EDI	05/04/24 23:30
Total/NA	Analysis	6020B		1	973122	CDC	EET EDI	05/05/24 12:28

**Client Sample ID: WC-04IC-BR**

**Date Collected: 04/26/24 08:01**

**Date Received: 04/29/24 18:00**

**Lab Sample ID: 460-302948-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			974423	YXG	EET EDI	05/12/24 16:00 - 05/13/24 08:00 <sup>1</sup>
TCLP	Prep	3010A			974700	KXN	EET EDI	05/14/24 07:32
TCLP	Analysis	6020B		10	975071	JKF	EET EDI	05/15/24 10:55
Total/NA	Analysis	Moisture		1	972253	CJC	EET EDI	04/30/24 17:15

**Client Sample ID: WC-04IC-BR**

**Date Collected: 04/26/24 08:01**

**Date Received: 04/29/24 18:00**

**Lab Sample ID: 460-302948-4**

**Matrix: Solid**

**Percent Solids: 78.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			972377	KXN	EET EDI	05/01/24 09:01
Total/NA	Analysis	6020B		1	972423	CDC	EET EDI	05/01/24 17:04

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

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

## Accreditation/Certification Summary

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

### Laboratory: Eurofins Edison

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

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0818	09-30-24
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-02-25
Georgia	State	12028 (NJ)	06-30-24
Massachusetts	State	M-NJ312	06-30-24
New Jersey	NELAP	12028	06-30-24
New York	NELAP	11452	04-01-25
Pennsylvania	NELAP	68-00522	02-28-25
Rhode Island	State	LAO00376	12-31-24
USDA	US Federal Programs	P330-20-00244	05-31-24

# Method Summary

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET EDI
1311	TCLP Extraction	SW846	EET EDI
3010A	Preparation, Total Metals	SW846	EET EDI
3050B	Preparation, Metals	SW846	EET EDI

### Protocol References:

EPA = US Environmental Protection Agency

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

# Sample Summary

Client: Arecon Ltd  
Project/Site: NYCDEP Gowanus Canal CSO Facilities

Job ID: 460-302948-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-302948-1	WC-03IC-A(5')	Solid	04/26/24 08:44	04/29/24 18:00
460-302948-2	WC-03IC-BR	Solid	04/26/24 08:50	04/29/24 18:00
460-302948-3	WC-03IC-C(14')	Solid	04/26/24 08:53	04/29/24 18:00
460-302948-4	WC-04IC-BR	Solid	04/26/24 08:01	04/29/24 18:00



[illegible]





## Login Sample Receipt Checklist

Client: Arecon Ltd

Job Number: 460-302948-1

**Login Number: 302948**

**List Source: Eurofins Edison**

**List Number: 1**

**Creator: Lysy, Susan**

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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	