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ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS
GENERAL CHEMISTRY
METALS
GC SEMI-VOLATILES
SEMI-VOLATILE ORGANICS

PROJECT NAME : NYCDDC SANTWOBR BROOKLYN BRIDGE BBMCR

RU2 ENGINEERING, LLC

2 Melinda Drive

Monroe Township, NJ - 08831

Phone No: 732-261-2236

ORDER ID : Q1242

ATTENTION : Rutu Manani

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q1242

Project ID : NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Client : RU2 Engineering, LLC

Lab Sample Number	Client Sample Number
Q1242-01	JPP-6.2-013025
Q1242-02	JPP-6.2-013025
Q1242-03	JPP-6.2-013025
Q1242-04	JPP-6.2-013025

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____ Date: 2/14/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
JPP-6.2-013025	Q1242-01	8260D			8015D		Chemtech -SOP
JPP-6.2-013025	Q1242-02	8260D			8015D		Chemtech -SOP
JPP-6.2-013025	Q1242-03	8260D	8270E		8015D, 8081B, 8082A	6010D, 7471B	Chemtech -SOP, 9095B
JPP-6.2-013025	Q1242-04	8260D	8270E		8015D, 8081B, 8082A, 8151A	6010D, 7471B, 7470A	Chemtech -SOP, 9095B, 1030, 9012B, 9034, 9045D

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-03	SOIL	01/30/25	01/30/25	01/31/25	02/07/25

*** Details For Test :** SVOC-TCL BNA -20

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-04	TCLP	01/30/25	01/30/25	02/03/25	02/04/25

*** Details For Test :** TCLP BNA

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-02	TCLP	01/30/25	01/30/25		02/03/25

*** Details For Test :** TCLP VOA

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-01	SOIL	01/30/25	01/30/25		02/04/25

*** Details For Test :** VOCMS Group1

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-01	SOIL	01/30/25	01/30/25	01/31/25	01/31/25

*** Details For Test :** Diesel Range Organics

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-01	SOIL	01/30/25	01/30/25		01/31/25

*** Details For Test :** Gasoline Range Organics

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FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-03	SOIL	01/30/25	01/30/25	01/31/25	02/01/25

*** Details For Test :** PCB

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FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-03	SOIL	01/30/25	01/30/25	01/31/25	01/31/25

*** Details For Test :** Pesticide-TCL

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FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-04	TCLP	01/30/25	01/30/25	02/03/25	02/03/25

*** Details For Test :** TCLP Herbicide

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FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
Q1242-04	TCLP	01/30/25	01/30/25	02/03/25	02/03/25

*** Details For Test :** TCLP Pesticide

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1242-01	Solid	8260D	5035		
Q1242-02	Solid	8260D	1311_ZHE		

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1242-03	Solid	8270E	3550		
Q1242-04	Solid	8270E			

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1242-01	Solid	8015D	3541		
Q1242-01	Solid	8015D	NA		
Q1242-03	Solid	8081B	3541		
Q1242-03	Solid	8082A	3541		
Q1242-04	Solid	8081B			
Q1242-04	Solid	8151A			

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1242-03	SOIL	Mercury	01/30/25	02/03/25	02/03/25

*** Details For Test :** Mercury

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1242-03	SOIL	Metals ICP-TAL	01/30/25	01/31/25	02/10/25

*** Details For Test :** Metals ICP-TAL

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1242-04	TCLP	TCLP ICP Metals	01/30/25	02/03/25	02/07/25

*** Details For Test :** TCLP ICP Metals

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
Q1242-04	TCLP	TCLP Mercury	01/30/25	02/03/25	02/04/25

*** Details For Test :** TCLP Mercury

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for VOCMS Group1.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_Y were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868.The analysis of VOCMS Group1 was based on method 8260D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.

The RPD for {VY0204SBSD01} with File ID: VY021049.D met criteria except for 1,2-Dibromo-3-Chloropropane[25%], Acetone[23%], Tert butyl alcohol [21%] due to difference in results of BS and BSD.

The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

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E. Additional Comments:

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Trip Blank was not provided with this set of samples.
The soil samples results are based on a dry weight basis.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: TCLP VOA

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for TCLP VOA.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868.The analysis of TCLP VOA was based on method 8260D and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration method met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

E. Additional Comments:
Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.
Trip Blank was not provided with this set of samples.
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial

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Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: Gasoline Range Organics

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for Gasoline Range Organics.

C. Analytical Techniques:
The analysis performed on instrument FID_B were done using GC column RTX502.2 which is 60 meters, 0.53mm ID, 3.0 um df, cat#10909.The analysis of Gasoline Range Organics was based on method 8015D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

E. Additional Comments:
The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: SVOC-TCL BNA -20

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for SVOC-TCL BNA -20.

C. Analytical Techniques:
The samples were analyzed on instrument BNA_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um dfThe analysis of SVOC-TCL BNA -20 was based on method 8270E and extraction was done based on method 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for JPP-6.2-013025 [2,4,6-Tribromophenol - 4% and 2-Fluorophenol - 8%], due to dirty and concentrated matrix as corrective action lab reanalyzed the sample but surrogate is failing therefore reported run is Final.

The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.

The MS {Q1239-10MS} with File ID: BF141345.D recoveries met the requirements for all compounds except for 2-Chlorophenol[75%], Acenaphthylene[78%], Isophorone[75%] and Naphthalene[71%] due to matrix interference.

The MSD {Q1239-10MSD} with File ID: BF141346.D recoveries met the acceptable requirements except for Benzaldehyde[92%] due to matrix interference.

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The RPD for {Q1239-10MSD} with File ID: BF141346.D met criteria except for Benzo(k)fluoranthene[22%] due to difference in results of MS and MSD.

The Blank Spike for {PB166418BS} with File ID: BF141441.D met requirements for all samples except for Acetophenone[100%], Hexachlorocyclopentadiene[191%] but no positive hit in associated sample therefore no corrective action taken.

The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .

The Continuous Calibration File ID BF141336.D met the requirements except for 4-Nitrophenol and Pentachlorophenol but associated QC within limits therefore no corrective action taken.

The Tuning criteria met requirements.

Samples JPP-6.2-013025 was diluted due to viscous and concentrated matrix.

E. Additional Comments:
The Form 6 is not included in the data package because the Initial Calibration was performed using 8 points.

The soil samples results are based on a dry weight basis.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: TCLP BNA

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for TCLP BNA.

C. Analytical Techniques:
The samples were analyzed on instrument BNA_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um df The analysis of TCLP BNA was based on method 8270E and extraction was done based on method 3510 and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

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E. Additional Comments:

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: Pesticide-TCL

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for Pesticide-TCL.

C. Analytical Techniques:
The analysis was performed on instrument ECD_L. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11.The analysis of Pesticide-TCLs was based on method 8081B and extraction was done based on method 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .

The RPD for {Q1239-10MSD} with File ID: PL093961.D met criteria except for Endrin aldehyde[30%]due to difference in results of MS-MSD.

The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

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E. Additional Comments:
Sample #JPP-6.2-013025 was reported with J flag on form 1 for com#17 based on reporting criteria of high concentration from both column. Now for other column compound detection is below MDL therefore it is not detecting on form 10.

The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: TCLP Pesticide

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for TCLP Pesticide.

C. Analytical Techniques:
The analysis was performed on instrument ECD_L. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11.The analysis of TCLP Pesticides was based on method 8081B and extraction was done based on method 3510 and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

E. Additional Comments:

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: PCB

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for PCB.

C. Analytical Techniques:
The analyses were performed on instrument GCECD_O. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11.The analysis of PCBs was based on method 8082A and extraction was done based on method 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .

The Continuous Calibration File ID PO109331.D met the requirements except for Decachlorobiphenyl is failing in 1st column but it is passing for 2nd column therefore no corrective action taken.

The Continuous Calibration File ID PO109364.D met the requirements except for Aroclor-1260(Peak-03),Aroclor-1260(Peak-04),Aroclor-1260(Peak-

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05),Decachlorobiphenyl is failing in 1st column AND Aroclor-1260(Peak-05),Decachlorobiphenyl is failing in 2nd column as a corrective action sample reanalyzed for confirmation.

The Continuous Calibration File ID PO109422.D met the requirements except for Aroclor-1260(Peak-01),Aroclor-1260(Peak-02),Aroclor-1260(Peak-03),Aroclor-1260(Peak-04),Aroclor-1260(Peak-05),Decachlorobiphenyl is failing in 1st column AND Aroclor-1260(Peak-01),Aroclor-1260(Peak-02),Aroclor-1260(Peak-03),Aroclor-1260(Peak-04),Aroclor-1260(Peak-05),Decachlorobiphenyl is failing in 2nd column, CCAL failure confirmed and both run reported.

E. Additional Comments:
The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: TCLP Herbicide

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for TCLP Herbicide.

C. Analytical Techniques:
The analysis was performed on instrument ECD_S. The front column is RTX-CLPesticides which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 11139. The rear column is RTX-CLPesticides2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 11324The analysis of TCLP Herbicides was based on method 8151A and extraction was done based on method 3510 and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

E. Additional Comments:

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for Diesel Range Organics.

C. Analytical Techniques:
The analysis were performed on instrument FID_E. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224.The analysis of Diesel Range Organics was based on method 8015D and extraction was done based on method 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.

The MS {Q1241-05MS} with File ID: FE052181.D recoveries met the requirements for all compounds except for DRO[-242%] due to sample matrix interference.

The MSD {Q1241-05MSD} with File ID: FE052182.D recoveries met the acceptable requirements except for DRO[-214%]due to sample matrix interference.

The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

Samples JPP-6.2-013025 was diluted due to bad matrix, The above samples original run is reported as screening data in miscellaneous data.

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E. Additional Comments:
The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: Metals ICP-TAL,Mercury

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for Metals ICP-TAL,Mercury.

C. Analytical Techniques:
The analysis of Metals ICP-TAL was based on method 6010D, digestion based on method 3050 (soils). The analysis and digestion of Mercury was based on method 7471B.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate (JPP-51.4-013025DUP) analysis met criteria for all samples except for Silver due to matrix interference. The Duplicate (VNJ-231MSD) analysis met criteria for all samples except for Mercury due to matrix interference.
The Matrix Spike (JPP-51.4-013025MS) analysis met criteria for all samples except for Antimony, Vanadium due to matrix interference.
The Matrix Spike Duplicate (JPP-51.4-013025MSD) analysis met criteria for all samples except for Antimony, Vanadium due to matrix interference.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met criteria for all samples.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: TCLP Mercury,TCLP ICP Metals

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for TCLP Mercury,TCLP ICP Metals.

C. Analytical Techniques:
The analysis of TCLP ICP Metals was based on method 6010D, digestion based on method 3010 (waters). The analysis and digestion of TCLP Mercury was based on method 7470A and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed

above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1242
Test Name: Corrosivity,Paint Filter,Ignitability,Reactive Cyanide,Reactive Sulfide

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 01/30/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for Corrosivity,Paint Filter,Ignitability,Reactive Cyanide,Reactive Sulfide.

C. Analytical Techniques:
The analysis of Ignitability was based on method 1030, The analysis of Reactive Cyanide was based on method 9012B, The analysis of Reactive Sulfide was based on method 9034, The analysis of Corrosivity was based on method 9045D and The analysis of Paint Filter was based on method 9095B.

D. QA/ QC Samples:
The Holding Times were met for all samples except for JPP-6.2-013025 of Corrosivity as this sample received out of hold.

The Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed

above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers **"P"** for ICP instrument **"PM"** for ICP when Microwave Digestion is used **"CV"** for Manual Cold Vapor AA **"AV"** for automated Cold Vapor AA **"CA"** for MIDI-Distillation Spectrophotometric **"AS"** for Semi –Automated Spectrophotometric **"C"** for Manual Spectrophotometric **"T"** for Titrimetric **"NR"** for analyte not required to be analyzed
OR	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

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DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1242

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: SOHIL JODHANI **Date:** 02/14/2025

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-01	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			VOCMS Group1	8260D			02/04/25	
Q1242-02	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID:	**JPP-6.2-013025**								
Q1242-01	JPP-6.2-013025	SOIL	Acetone		16.4		4.00	16.0	ug/Kg
Q1242-01	JPP-6.2-013025	SOIL	Carbon Disulfide		2.20	J	0.82	3.20	ug/Kg
Q1242-01	JPP-6.2-013025	SOIL	Toluene		3.70		0.43	3.20	ug/Kg
Q1242-01	JPP-6.2-013025	SOIL	Isopropylbenzene		1.50	J	0.43	3.20	ug/Kg
			Total Voc :		23.8				
Q1242-01	JPP-6.2-013025	SOIL	.beta.-Pinene	*	5.00	J	0	0	ug/Kg
Q1242-01	JPP-6.2-013025	SOIL	p-Isopropyltoluene	*	8.60	J	0.37	3.20	ug/Kg
			Total Tics :		13.6				
			Total Concentration:		37.4				

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.5
Sample Wt/Vol:	9.58 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021068.D	1		02/04/25 18:57	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	3.20	U	1.10	3.20	ug/Kg
74-87-3	Chloromethane	3.20	U	0.74	3.20	ug/Kg
75-01-4	Vinyl Chloride	3.20	U	0.49	3.20	ug/Kg
74-83-9	Bromomethane	3.20	U	0.66	3.20	ug/Kg
75-00-3	Chloroethane	3.20	U	0.65	3.20	ug/Kg
75-69-4	Trichlorofluoromethane	3.20	U	0.58	3.20	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.20	U	0.69	3.20	ug/Kg
75-65-0	Tert butyl alcohol	16.0	U	10.0	16.0	ug/Kg
75-35-4	1,1-Dichloroethene	3.20	U	0.50	3.20	ug/Kg
67-64-1	Acetone	16.4		4.00	16.0	ug/Kg
75-15-0	Carbon Disulfide	2.20	J	0.82	3.20	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.20	U	0.43	3.20	ug/Kg
79-20-9	Methyl Acetate	3.20	U	1.20	3.20	ug/Kg
75-09-2	Methylene Chloride	6.40	U	2.20	6.40	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.20	U	0.54	3.20	ug/Kg
75-34-3	1,1-Dichloroethane	3.20	U	0.40	3.20	ug/Kg
110-82-7	Cyclohexane	3.20	U	0.44	3.20	ug/Kg
78-93-3	2-Butanone	16.0	U	3.60	16.0	ug/Kg
56-23-5	Carbon Tetrachloride	3.20	U	0.56	3.20	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.20	U	0.39	3.20	ug/Kg
74-97-5	Bromochloromethane	3.20	U	1.50	3.20	ug/Kg
67-66-3	Chloroform	3.20	U	0.43	3.20	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.20	U	0.50	3.20	ug/Kg
108-87-2	Methylcyclohexane	3.20	U	0.56	3.20	ug/Kg
71-43-2	Benzene	3.20	U	0.46	3.20	ug/Kg
107-06-2	1,2-Dichloroethane	3.20	U	0.39	3.20	ug/Kg
79-01-6	Trichloroethene	3.20	U	0.48	3.20	ug/Kg
78-87-5	1,2-Dichloropropane	3.20	U	0.42	3.20	ug/Kg
75-27-4	Bromodichloromethane	3.20	U	0.36	3.20	ug/Kg
108-10-1	4-Methyl-2-Pentanone	16.0	U	2.80	16.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.5
Sample Wt/Vol:	9.58 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021068.D	1		02/04/25 18:57	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	3.70		0.43	3.20	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.20	U	0.38	3.20	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.20	U	0.37	3.20	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.20	U	0.54	3.20	ug/Kg
591-78-6	2-Hexanone	16.0	U	3.10	16.0	ug/Kg
124-48-1	Dibromochloromethane	3.20	U	0.42	3.20	ug/Kg
106-93-4	1,2-Dibromoethane	3.20	U	0.51	3.20	ug/Kg
127-18-4	Tetrachloroethene	3.20	U	0.57	3.20	ug/Kg
108-90-7	Chlorobenzene	3.20	U	0.47	3.20	ug/Kg
100-41-4	Ethyl Benzene	3.20	U	0.40	3.20	ug/Kg
179601-23-1	m/p-Xylenes	6.40	U	0.86	6.40	ug/Kg
95-47-6	o-Xylene	3.20	U	0.45	3.20	ug/Kg
100-42-5	Styrene	3.20	U	0.38	3.20	ug/Kg
75-25-2	Bromoform	3.20	U	0.52	3.20	ug/Kg
98-82-8	Isopropylbenzene	1.50	J	0.43	3.20	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.20	U	0.70	3.20	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.20	U	0.47	3.20	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.20	U	0.51	3.20	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.20	U	0.38	3.20	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.20	U	1.00	3.20	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.20	U	0.51	3.20	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.20	U	0.50	3.20	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.6		50 - 163	119%	SPK: 50
1868-53-7	Dibromofluoromethane	37.4		54 - 147	75%	SPK: 50
2037-26-5	Toluene-d8	49.6		58 - 134	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		29 - 146	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	137000	7.707			
540-36-3	1,4-Difluorobenzene	244000	8.616			
3114-55-4	Chlorobenzene-d5	215000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	86800	13.347			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.5
Sample Wt/Vol:	9.58 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021068.D	1		02/04/25 18:57	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TENTATIVE IDENTIFIED COMPOUNDS						
000127-91-3	.beta.-Pinene	5.00	J		12.8	ug/Kg
99-87-6	p-Isopropyltoluene	8.60	J		13.3	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1242-01	JPP-6.2-013025	1,2-Dichloroethane-d4	50	59.6	119	50	163
		Dibromofluoromethane	50	37.4	75	54	147
		Toluene-d8	50	49.6	99	58	134
		4-Bromofluorobenzene	50	48.6	97	29	146
VY0204SBL01	VY0204SBL01	1,2-Dichloroethane-d4	50	57.4	115	50	163
		Dibromofluoromethane	50	51.6	103	54	147
		Toluene-d8	50	49.8	100	58	134
		4-Bromofluorobenzene	50	47.5	95	29	146
VY0204SBS01	VY0204SBS01	1,2-Dichloroethane-d4	50	44.3	89	50	163
		Dibromofluoromethane	50	44.6	89	54	147
		Toluene-d8	50	45.4	91	58	134
		4-Bromofluorobenzene	50	45.0	90	29	146
VY0204SBSD01	VY0204SBSD01	1,2-Dichloroethane-d4	50	55.2	110	50	163
		Dibromofluoromethane	50	53.3	107	54	147
		Toluene-d8	50	54.0	108	58	134
		4-Bromofluorobenzene	50	56.3	113	29	146

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021048.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBS01	Dichlorodifluoromethane	19.9	18.6	ug/Kg	93			64	136	
	Chloromethane	19.9	18.0	ug/Kg	90			70	130	
	Vinyl chloride	19.9	17.9	ug/Kg	90			72	129	
	Bromomethane	19.9	17.7	ug/Kg	89			58	141	
	Chloroethane	19.9	17.7	ug/Kg	89			69	130	
	Trichlorofluoromethane	19.9	18.0	ug/Kg	90			69	134	
	1,1,2-Trichlorotrifluoroethane	19.9	18.8	ug/Kg	94			81	123	
	Tert butyl alcohol	99.6	97.1	ug/Kg	97			24	175	
	1,1-Dichloroethene	19.9	18.0	ug/Kg	90			79	121	
	Acetone	99.6	94.9	ug/Kg	95			60	131	
	Carbon disulfide	19.9	17.6	ug/Kg	88			45	154	
	Methyl tert-butyl Ether	19.9	17.7	ug/Kg	89			77	129	
	Methyl Acetate	19.9	17.9	ug/Kg	90			69	149	
	Methylene Chloride	19.9	18.2	ug/Kg	91			56	174	
	trans-1,2-Dichloroethene	19.9	17.9	ug/Kg	90			80	123	
	1,1-Dichloroethane	19.9	18.6	ug/Kg	93			82	123	
	Cyclohexane	19.9	18.4	ug/Kg	92			76	122	
	2-Butanone	99.6	91.9	ug/Kg	92			69	131	
	Carbon Tetrachloride	19.9	18.8	ug/Kg	94			76	129	
	cis-1,2-Dichloroethene	19.9	18.3	ug/Kg	92			82	123	
	Bromochloromethane	19.9	19.8	ug/Kg	99			80	127	
	Chloroform	19.9	18.4	ug/Kg	92			82	125	
	1,1,1-Trichloroethane	19.9	18.8	ug/Kg	94			80	126	
	Methylcyclohexane	19.9	18.3	ug/Kg	92			77	123	
	Benzene	19.9	18.5	ug/Kg	93			84	121	
	1,2-Dichloroethane	19.9	18.1	ug/Kg	91			81	126	
	Trichloroethene	19.9	18.5	ug/Kg	93			83	122	
	1,2-Dichloropropane	19.9	19.0	ug/Kg	95			83	122	
	Bromodichloromethane	19.9	18.6	ug/Kg	93			82	123	
	4-Methyl-2-Pentanone	99.6	92.0	ug/Kg	92			70	135	
	Toluene	19.9	18.8	ug/Kg	94			83	122	
	t-1,3-Dichloropropene	19.9	18.2	ug/Kg	91			78	124	
	cis-1,3-Dichloropropene	19.9	18.5	ug/Kg	93			81	122	
	1,1,2-Trichloroethane	19.9	18.3	ug/Kg	92			82	125	
	2-Hexanone	99.6	90.5	ug/Kg	91			66	138	
	Dibromochloromethane	19.9	18.3	ug/Kg	92			79	125	
	1,2-Dibromoethane	19.9	17.7	ug/Kg	89			80	125	
	Tetrachloroethene	19.9	18.8	ug/Kg	94			83	125	
	Chlorobenzene	19.9	18.5	ug/Kg	93			84	122	
	Ethyl Benzene	19.9	18.7	ug/Kg	94			82	124	
	m/p-Xylenes	39.8	37.6	ug/Kg	94			83	124	
	o-Xylene	19.9	18.5	ug/Kg	93			83	123	
	Styrene	19.9	18.8	ug/Kg	94			82	124	
	Bromoform	19.9	18.5	ug/Kg	93			75	127	
	Isopropylbenzene	19.9	17.6	ug/Kg	88			82	124	
	1,1,2,2-Tetrachloroethane	19.9	17.4	ug/Kg	87			77	127	
	1,3-Dichlorobenzene	19.9	17.8	ug/Kg	89			83	122	
	1,4-Dichlorobenzene	19.9	18.2	ug/Kg	91			84	121	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021048.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBS01	1,2-Dichlorobenzene	19.9	18.2	ug/Kg	91			83	124	
	1,2-Dibromo-3-Chloropropane	19.9	16.2	ug/Kg	81			66	134	
	1,2,4-Trichlorobenzene	19.9	18.2	ug/Kg	91			78	127	
	1,2,3-Trichlorobenzene	19.9	17.8	ug/Kg	89			70	137	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021049.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBSD01	Dichlorodifluoromethane	19.9	19.3	ug/Kg	97	4		64	136	20
	Chloromethane	19.9	19.6	ug/Kg	98	9		70	130	20
	Vinyl chloride	19.9	18.0	ug/Kg	90	0		72	129	20
	Bromomethane	19.9	19.2	ug/Kg	96	8		58	141	20
	Chloroethane	19.9	17.5	ug/Kg	88	1		69	130	20
	Trichlorofluoromethane	19.9	18.4	ug/Kg	92	2		69	134	20
	1,1,2-Trichlorotrifluoroethane	19.9	19.0	ug/Kg	95	1		81	123	20
	Tert butyl alcohol	99.6	120	ug/Kg	120	21	*	24	175	20
	1,1-Dichloroethene	19.9	18.8	ug/Kg	94	4		79	121	20
	Acetone	99.6	120	ug/Kg	120	23	*	60	131	20
	Carbon disulfide	19.9	18.2	ug/Kg	91	3		45	154	20
	Methyl tert-butyl Ether	19.9	20.3	ug/Kg	102	14		77	129	20
	Methyl Acetate	19.9	21.6	ug/Kg	109	19		69	149	20
	Methylene Chloride	19.9	20.1	ug/Kg	101	10		56	174	20
	trans-1,2-Dichloroethene	19.9	19.4	ug/Kg	97	7		80	123	20
	1,1-Dichloroethane	19.9	20.0	ug/Kg	101	8		82	123	20
	Cyclohexane	19.9	18.5	ug/Kg	93	1		76	122	20
	2-Butanone	99.6	110	ug/Kg	110	18		69	131	20
	Carbon Tetrachloride	19.9	19.3	ug/Kg	97	3		76	129	20
	cis-1,2-Dichloroethene	19.9	19.9	ug/Kg	100	8		82	123	20
	Bromochloromethane	19.9	23.3	ug/Kg	117	17		80	127	20
	Chloroform	19.9	20.0	ug/Kg	101	9		82	125	20
	1,1,1-Trichloroethane	19.9	19.8	ug/Kg	99	5		80	126	20
	Methylcyclohexane	19.9	18.4	ug/Kg	92	0		77	123	20
	Benzene	19.9	19.9	ug/Kg	100	7		84	121	20
	1,2-Dichloroethane	19.9	20.4	ug/Kg	103	12		81	126	20
	Trichloroethene	19.9	19.4	ug/Kg	97	4		83	122	20
	1,2-Dichloropropane	19.9	20.0	ug/Kg	101	6		83	122	20
	Bromodichloromethane	19.9	20.6	ug/Kg	104	11		82	123	20
	4-Methyl-2-Pentanone	99.6	110	ug/Kg	110	18		70	135	20
	Toluene	19.9	20.0	ug/Kg	101	7		83	122	20
	t-1,3-Dichloropropene	19.9	20.2	ug/Kg	102	11		78	124	20
	cis-1,3-Dichloropropene	19.9	20.1	ug/Kg	101	8		81	122	20
	1,1,2-Trichloroethane	19.9	20.4	ug/Kg	103	11		82	125	20
	2-Hexanone	99.6	110	ug/Kg	110	19		66	138	20
	Dibromochloromethane	19.9	20.6	ug/Kg	104	12		79	125	20
	1,2-Dibromoethane	19.9	20.0	ug/Kg	101	13		80	125	20
	Tetrachloroethene	19.9	19.5	ug/Kg	98	4		83	125	20
	Chlorobenzene	19.9	19.6	ug/Kg	98	5		84	122	20
	Ethyl Benzene	19.9	19.5	ug/Kg	98	4		82	124	20
	m/p-Xylenes	39.8	39.5	ug/Kg	99	5		83	124	20
	o-Xylene	19.9	20.0	ug/Kg	101	8		83	123	20
	Styrene	19.9	20.2	ug/Kg	102	8		82	124	20
	Bromoform	19.9	21.2	ug/Kg	107	14		75	127	20
	Isopropylbenzene	19.9	18.5	ug/Kg	93	6		82	124	20
	1,1,2,2-Tetrachloroethane	19.9	20.2	ug/Kg	102	16		77	127	20
	1,3-Dichlorobenzene	19.9	19.1	ug/Kg	96	8		83	122	20
	1,4-Dichlorobenzene	19.9	19.7	ug/Kg	99	8		84	121	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021049.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VY0204SBSD01	1,2-Dichlorobenzene	19.9	19.8	ug/Kg	99	8		83	124	20
	1,2-Dibromo-3-Chloropropane	19.9	20.7	ug/Kg	104	25	*	66	134	20
	1,2,4-Trichlorobenzene	19.9	20.0	ug/Kg	101	10		78	127	20
	1,2,3-Trichlorobenzene	19.9	20.8	ug/Kg	105	16		70	137	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0204SBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021047.D Lab Sample ID: VY0204SBL01

Date Analyzed: 02/04/2025 Time Analyzed: 10:15

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY0204SBS01	VY0204SBS01	VY021048.D	02/04/2025
VY0204SBSD01	VY0204SBSD01	VY021049.D	02/04/2025
JPP-6.2-013025	Q1242-01	VY021068.D	02/04/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021019.D BFB Injection Date: 02/03/2025

Instrument ID: MSVOA_Y BFB Injection Time: 09:51

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.3
75	30.0 - 60.0% of mass 95	49
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.3 (0.4) 1
174	50.0 - 100.0% of mass 95	89.7
175	5.0 - 9.0% of mass 174	7 (7.8) 1
176	95.0 - 101.0% of mass 174	87 (97) 1
177	5.0 - 9.0% of mass 176	5.9 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VY021020.D	02/03/2025	10:35
VSTDICC010	VSTDICC010	VY021021.D	02/03/2025	10:57
VSTDICC020	VSTDICC020	VY021022.D	02/03/2025	11:20
VSTDICCC050	VSTDICCC050	VY021023.D	02/03/2025	11:43
VSTDICC100	VSTDICC100	VY021024.D	02/03/2025	12:21
VSTDICC150	VSTDICC150	VY021025.D	02/03/2025	12:44

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021045.D BFB Injection Date: 02/04/2025

Instrument ID: MSVOA_Y BFB Injection Time: 09:16

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	55.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.3 (1.5) 1
174	50.0 - 100.0% of mass 95	88.1
175	5.0 - 9.0% of mass 174	7 (7.9) 1
176	95.0 - 101.0% of mass 174	84.8 (96.1) 1
177	5.0 - 9.0% of mass 176	5.3 (6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VY021046.D	02/04/2025	09:47
VY0204SBL01	VY0204SBL01	VY021047.D	02/04/2025	10:15
VY0204SBS01	VY0204SBS01	VY021048.D	02/04/2025	10:52
VY0204SBSD01	VY0204SBSD01	VY021049.D	02/04/2025	11:15
JPP-6.2-013025	Q1242-01	VY021068.D	02/04/2025	18:57

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021046.D Date Analyzed: 02/04/2025

Instrument ID: MSVOA_Y Time Analyzed: 09:47

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	154178	7.71	233780	8.62	206737	11.42
UPPER LIMIT	308356	8.213	467560	9.115	413474	11.92
LOWER LIMIT	77089	7.213	116890	8.115	103369	10.92
EPA SAMPLE NO.						
JPP-6.2-013025	137351	7.71	243790	8.62	214926	11.41
VY0204SBL01	173019	7.71	321305	8.62	292351	11.42
VY0204SBS01	159738	7.71	247448	8.62	212473	11.42
VY0204SBSD01	146628	7.71	228862	8.62	199914	11.42

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021046.D Date Analyzed: 02/04/2025

Instrument ID: MSVOA_Y Time Analyzed: 09:47

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	102470	13.352				
UPPER LIMIT	204940	13.852				
LOWER LIMIT	51235	12.852				
EPA SAMPLE NO.						
JPP-6.2-013025	86830	13.35				
VY0204SBL01	114535	13.35				
VY0204SBS01	108974	13.35				
VY0204SBSD01	101483	13.35				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	U	1.70	5.00	ug/Kg
74-87-3	Chloromethane	5.00	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	5.00	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	5.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	5.00	U	1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	5.00	U	0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	25.0	U	15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	5.00	U	0.78	5.00	ug/Kg
67-64-1	Acetone	25.0	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	5.00	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.00	U	0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	5.00	U	1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	10.0	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	5.00	U	0.63	5.00	ug/Kg
110-82-7	Cyclohexane	5.00	U	0.69	5.00	ug/Kg
78-93-3	2-Butanone	25.0	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.00	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	5.00	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	5.00	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.00	U	0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	5.00	U	0.87	5.00	ug/Kg
71-43-2	Benzene	5.00	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	5.00	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	5.00	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	5.00	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	5.00	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	25.0	U	4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.00	U	0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.00	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.00	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	25.0	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	5.00	U	0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	5.00	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	5.00	U	0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	5.00	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	5.00	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	10.0	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	5.00	U	0.70	5.00	ug/Kg
100-42-5	Styrene	5.00	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	5.00	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	5.00	U	0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.00	U	0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.00	U	0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.00	U	0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.00	U	0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.4		50 - 163	115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	49.8		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		29 - 146	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	173000	7.713			
540-36-3	1,4-Difluorobenzene	321000	8.616			
3114-55-4	Chlorobenzene-d5	292000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	115000	13.353			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	18.7		1.70	5.00	ug/Kg
74-87-3	Chloromethane	18.1		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	17.9		0.77	5.00	ug/Kg
74-83-9	Bromomethane	17.8		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.7		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.1		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	18.9		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	97.5		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.1		0.78	5.00	ug/Kg
67-64-1	Acetone	95.3		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	17.7		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	17.8		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	18.0		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	18.3		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	17.9		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	18.6		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.5		0.69	5.00	ug/Kg
78-93-3	2-Butanone	92.2		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	18.8		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	18.3		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	19.9		2.40	5.00	ug/Kg
67-66-3	Chloroform	18.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	18.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.4		0.87	5.00	ug/Kg
71-43-2	Benzene	18.5		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	18.1		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	18.6		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.1		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	18.6		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	92.4		4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	18.9		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	18.2		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	18.6		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	18.4		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	90.8		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	18.3		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	17.8		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	18.9		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	18.6		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.7		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	37.8		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.6		0.70	5.00	ug/Kg
100-42-5	Styrene	18.8		0.60	5.00	ug/Kg
75-25-2	Bromoform	18.6		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	17.7		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	17.4		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	17.9		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	18.3		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	18.2		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	16.3		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.3		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.8		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.3		50 - 163	89%	SPK: 50
1868-53-7	Dibromofluoromethane	44.6		54 - 147	89%	SPK: 50
2037-26-5	Toluene-d8	45.4		58 - 134	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.0		29 - 146	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	7.707			
540-36-3	1,4-Difluorobenzene	247000	8.616			
3114-55-4	Chlorobenzene-d5	212000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	109000	13.353			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	19.3		1.70	5.00	ug/Kg
74-87-3	Chloromethane	19.7		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.1		0.77	5.00	ug/Kg
74-83-9	Bromomethane	19.2		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.6		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.4		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	19.1		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	120		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.9		0.78	5.00	ug/Kg
67-64-1	Acetone	120		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.3		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	20.4		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	21.7		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	20.2		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	19.5		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.1		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.6		0.69	5.00	ug/Kg
78-93-3	2-Butanone	110		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.3		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.0		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	23.4		2.40	5.00	ug/Kg
67-66-3	Chloroform	20.1		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.5		0.87	5.00	ug/Kg
71-43-2	Benzene	20.0		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.4		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	19.4		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.1		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.6		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.40	25.0	ug/Kg

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	20.1		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	20.3		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.1		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	20.5		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.7		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.1		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.6		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	19.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.6		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	39.7		1.40	10.0	ug/Kg
95-47-6	o-Xylene	20.1		0.70	5.00	ug/Kg
100-42-5	Styrene	20.2		0.60	5.00	ug/Kg
75-25-2	Bromoform	21.3		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.5		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.3		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.2		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.8		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.9		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20.8		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	20.1		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	20.9		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.2		50 - 163	110%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	53.9		58 - 134	108%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.3		29 - 146	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	147000	7.707			
540-36-3	1,4-Difluorobenzene	229000	8.616			
3114-55-4	Chlorobenzene-d5	200000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	101000	13.346			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF005 = VY021020.D RRF010 = VY021021.D RRF020 = VY021022.D
RRF050 = VY021023.D RRF100 = VY021024.D RRF150 = VY021025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.503	0.438	0.413	0.445	0.419	0.457	0.446	7.2
Chloromethane	0.524	0.445	0.408	0.421	0.404	0.437	0.440	10.1
Vinyl Chloride	0.535	0.441	0.404	0.424	0.408	0.443	0.443	10.9
Bromomethane	0.356	0.275	0.249	0.258	0.246	0.257	0.274	15.2
Chloroethane	0.316	0.270	0.240	0.255	0.239	0.261	0.263	10.7
Trichlorofluoromethane	0.924	0.814	0.755	0.789	0.743	0.813	0.806	8
1,1,2-Trichlorotrifluoroethane	0.587	0.507	0.472	0.494	0.466	0.510	0.506	8.6
Tert butyl alcohol	0.042	0.039	0.035	0.032	0.028	0.032	0.035	14.8
1,1-Dichloroethene	0.529	0.471	0.441	0.469	0.452	0.498	0.477	6.8
Acetone	0.087	0.083	0.078	0.077	0.070	0.083	0.080	7.5
Carbon Disulfide	1.673	1.456	1.389	1.475	1.421	1.556	1.495	7
Methyl tert-butyl Ether	1.271	1.185	1.168	1.216	1.124	1.265	1.205	4.8
Methyl Acetate	0.300	0.282	0.268	0.287	0.253	0.291	0.280	6.1
Methylene Chloride	0.570	0.506	0.473	0.485	0.452	0.494	0.497	8.2
trans-1,2-Dichloroethene	0.578	0.518	0.502	0.522	0.490	0.538	0.525	5.8
1,1-Dichloroethane	1.104	0.948	0.923	0.947	0.911	0.989	0.970	7.3
Cyclohexane	1.093	0.885	0.807	0.827	0.779	0.852	0.874	13
2-Butanone	0.134	0.133	0.126	0.135	0.121	0.139	0.131	5.2
Carbon Tetrachloride	0.604	0.551	0.522	0.547	0.522	0.581	0.555	5.9
cis-1,2-Dichloroethene	0.662	0.584	0.577	0.599	0.575	0.626	0.604	5.7
Bromochloromethane	0.373	0.368	0.381	0.413	0.374	0.394	0.384	4.4
Chloroform	1.107	1.016	0.947	0.982	0.921	1.006	0.997	6.5
1,1,1-Trichloroethane	1.067	0.901	0.867	0.912	0.863	0.949	0.927	8.2
Methylcyclohexane	0.609	0.550	0.536	0.588	0.570	0.629	0.581	6.1
Benzene	1.512	1.382	1.327	1.378	1.323	1.436	1.393	5.1
1,2-Dichloroethane	0.435	0.390	0.367	0.379	0.352	0.395	0.386	7.4
Trichloroethene	0.401	0.355	0.341	0.349	0.338	0.375	0.360	6.7
1,2-Dichloropropane	0.357	0.329	0.319	0.327	0.311	0.341	0.331	5
Bromodichloromethane	0.528	0.500	0.469	0.482	0.459	0.506	0.491	5.2
4-Methyl-2-Pentanone	0.202	0.211	0.202	0.216	0.194	0.224	0.208	5.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF005 = VY021020.D RRF010 = VY021021.D RRF020 = VY021022.D
RRF050 = VY021023.D RRF100 = VY021024.D RRF150 = VY021025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Toluene	0.913	0.856	0.840	0.876	0.844	0.918	0.875	3.9
t-1,3-Dichloropropene	0.441	0.426	0.419	0.449	0.427	0.483	0.441	5.3
cis-1,3-Dichloropropene	0.528	0.516	0.502	0.525	0.501	0.560	0.522	4.2
1,1,2-Trichloroethane	0.261	0.235	0.231	0.235	0.217	0.242	0.237	6.1
2-Hexanone	0.124	0.131	0.128	0.144	0.129	0.149	0.134	7.4
Dibromochloromethane	0.359	0.330	0.324	0.329	0.310	0.346	0.333	5.2
1,2-Dibromoethane	0.232	0.223	0.215	0.225	0.203	0.233	0.222	5
Tetrachloroethene	0.409	0.367	0.352	0.361	0.351	0.387	0.371	6.2
Chlorobenzene	1.237	1.115	1.054	1.080	1.048	1.146	1.113	6.4
Ethyl Benzene	2.101	1.899	1.865	1.943	1.914	2.093	1.969	5.2
m/p-Xylenes	0.772	0.723	0.709	0.733	0.711	0.773	0.737	3.9
o-Xylene	0.723	0.658	0.660	0.681	0.670	0.729	0.687	4.6
Styrene	1.154	1.118	1.105	1.156	1.128	1.208	1.145	3.2
Bromoform	0.231	0.222	0.217	0.216	0.205	0.229	0.220	4.4
Isopropylbenzene	4.122	3.695	3.673	3.809	3.871	4.263	3.906	6.1
1,1,2,2-Tetrachloroethane	0.707	0.646	0.635	0.632	0.597	0.680	0.650	6
1,3-Dichlorobenzene	1.937	1.686	1.660	1.683	1.652	1.824	1.740	6.6
1,4-Dichlorobenzene	1.906	1.702	1.632	1.665	1.599	1.778	1.714	6.6
1,2-Dichlorobenzene	1.668	1.524	1.440	1.460	1.405	1.567	1.510	6.4
1,2-Dibromo-3-Chloropropane	0.099	0.099	0.089	0.097	0.089	0.109	0.097	7.6
1,2,4-Trichlorobenzene	0.796	0.754	0.743	0.875	0.873	1.004	0.841	11.6
1,2,3-Trichlorobenzene	0.641	0.640	0.626	0.733	0.726	0.832	0.700	11.4
1,2-Dichloroethane-d4	0.566	0.557	0.478	0.503	0.454	0.516	0.512	8.5
Dibromofluoromethane	0.351	0.326	0.301	0.313	0.297	0.333	0.320	6.4
Toluene-d8	1.295	1.237	1.139	1.202	1.158	1.288	1.220	5.3
4-Bromofluorobenzene	0.417	0.408	0.371	0.403	0.375	0.418	0.399	5.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_Y Calibration Date/Time: 02/04/2025 09:47

Lab File ID: VY021046.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.446	0.470		5.38	20
Chloromethane	0.440	0.443	0.1	0.68	20
Vinyl Chloride	0.443	0.443		0	20
Bromomethane	0.274	0.270		-1.46	20
Chloroethane	0.263	0.263		0	20
Trichlorofluoromethane	0.806	0.812		0.74	20
1,1,2-Trichlorotrifluoroethane	0.506	0.522		3.16	20
Tert butyl alcohol	0.035	0.035		0	20
1,1-Dichloroethene	0.477	0.489		2.52	20
Acetone	0.080	0.085		6.25	20
Carbon Disulfide	1.495	1.571		5.08	20
Methyl tert-butyl Ether	1.205	1.270		5.39	20
Methyl Acetate	0.280	0.312		11.43	20
Methylene Chloride	0.497	0.513		3.22	20
trans-1,2-Dichloroethene	0.525	0.550		4.76	20
1,1-Dichloroethane	0.970	1.014	0.1	4.54	20
Cyclohexane	0.874	0.883		1.03	20
2-Butanone	0.131	0.143		9.16	20
Carbon Tetrachloride	0.555	0.591		6.49	20
cis-1,2-Dichloroethene	0.604	0.639		5.8	20
Bromochloromethane	0.384	0.407		5.99	20
Chloroform	0.997	1.045		4.81	20
1,1,1-Trichloroethane	0.927	0.969		4.53	20
Methylcyclohexane	0.581	0.623		7.23	20
Benzene	1.393	1.501		7.75	20
1,2-Dichloroethane	0.386	0.414		7.25	20
Trichloroethene	0.360	0.380		5.56	20
1,2-Dichloropropane	0.331	0.357		7.86	20
Bromodichloromethane	0.491	0.518		5.5	20
4-Methyl-2-Pentanone	0.208	0.238		14.42	20
Toluene	0.875	0.954		9.03	20
t-1,3-Dichloropropene	0.441	0.486		10.2	20
cis-1,3-Dichloropropene	0.522	0.569		9	20
1,1,2-Trichloroethane	0.237	0.253		6.75	20
2-Hexanone	0.134	0.157		17.16	20
Dibromochloromethane	0.333	0.359		7.81	20
1,2-Dibromoethane	0.222	0.240		8.11	20
Tetrachloroethene	0.371	0.387		4.31	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_Y Calibration Date/Time: 02/04/2025 09:47

Lab File ID: VY021046.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chlorobenzene	1.113	1.159	0.3	4.13	20
Ethyl Benzene	1.969	2.119		7.62	20
m/p-Xylenes	0.737	0.793		7.6	20
o-Xylene	0.687	0.747		8.73	20
Styrene	1.145	1.261		10.13	20
Bromoform	0.220	0.240	0.1	9.09	20
Isopropylbenzene	3.906	4.054		3.76	20
1,1,2,2-Tetrachloroethane	0.650	0.677	0.3	4.15	20
1,3-Dichlorobenzene	1.740	1.821		4.66	20
1,4-Dichlorobenzene	1.714	1.787		4.26	20
1,2-Dichlorobenzene	1.510	1.568		3.84	20
1,2-Dibromo-3-Chloropropane	0.097	0.101		4.12	20
1,2,4-Trichlorobenzene	0.841	0.932		10.82	20
1,2,3-Trichlorobenzene	0.700	0.777		11	20
1,2-Dichloroethane-d4	0.512	0.534		4.3	20
Dibromofluoromethane	0.320	0.343		7.19	20
Toluene-d8	1.220	1.329		8.93	20
4-Bromofluorobenzene	0.399	0.446		11.78	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-02	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:								

0

Total Voc :

Total Concentration:

SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-02	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085640.D	1		02/03/25 22:25	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.9		74 - 125	108%	SPK: 50
1868-53-7	Dibromofluoromethane	49.7		75 - 124	99%	SPK: 50
2037-26-5	Toluene-d8	52.2		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.6		77 - 121	85%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	157000	8.224			
540-36-3	1,4-Difluorobenzene	329000	9.1			
3114-55-4	Chlorobenzene-d5	308000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	104000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1242-02	JPP-6.2-013025	1,2-Dichloroethane-d4	50	53.9	108	74	125
		Dibromofluoromethane	50	49.7	99	75	124
		Toluene-d8	50	52.2	104	86	113
		4-Bromofluorobenzene	50	42.6	85	77	121
VN0203WBL01	VN0203WBL01	1,2-Dichloroethane-d4	50	50.4	101	74	125
		Dibromofluoromethane	50	50.6	101	75	124
		Toluene-d8	50	50.1	100	86	113
		4-Bromofluorobenzene	50	42.6	85	77	121
VN0203WBS01	VN0203WBS01	1,2-Dichloroethane-d4	50	47.8	96	74	125
		Dibromofluoromethane	50	52.2	104	75	124
		Toluene-d8	50	54.6	109	86	113
		4-Bromofluorobenzene	50	51.1	102	77	121
VN0203WBSD0	VN0203WBSD01	1,2-Dichloroethane-d4	50	48.0	96	74	125
		Dibromofluoromethane	50	51.0	102	75	124
		Toluene-d8	50	51.7	103	86	113
		4-Bromofluorobenzene	50	48.8	98	77	121

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VN085619.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0203WBS01	Vinyl chloride	20	18.0	ug/L	90			65	117	
	1,1-Dichloroethene	20	17.3	ug/L	86			74	110	
	2-Butanone	100	88.6	ug/L	89			65	122	
	Carbon Tetrachloride	20	17.5	ug/L	88			77	113	
	Chloroform	20	19.0	ug/L	95			79	113	
	Benzene	20	18.6	ug/L	93			82	109	
	1,2-Dichloroethane	20	17.2	ug/L	86			80	115	
	Trichloroethene	20	18.4	ug/L	92			77	113	
	Tetrachloroethene	20	19.2	ug/L	96			67	123	
	Chlorobenzene	20	19.0	ug/L	95			82	109	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VN085620.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0203WBSD01	Vinyl chloride	20	18.9	ug/L	95	5		65	117	20
	1,1-Dichloroethene	20	18.1	ug/L	91	6		74	110	20
	2-Butanone	100	94.6	ug/L	95	7		65	122	20
	Carbon Tetrachloride	20	17.8	ug/L	89	1		77	113	20
	Chloroform	20	19.8	ug/L	99	4		79	113	20
	Benzene	20	18.8	ug/L	94	1		82	109	20
	1,2-Dichloroethane	20	17.5	ug/L	88	2		80	115	20
	Trichloroethene	20	18.2	ug/L	91	1		77	113	20
	Tetrachloroethene	20	19.1	ug/L	96	0		67	123	20
	Chlorobenzene	20	19.6	ug/L	98	3		82	109	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0203WBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VN085618.D Lab Sample ID: VN0203WBL01

Date Analyzed: 02/03/2025 Time Analyzed: 13:34

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0203WBS01	VN0203WBS01	VN085619.D	02/03/2025
VN0203WBSD01	VN0203WBSD01	VN085620.D	02/03/2025
JPP-6.2-013025	Q1242-02	VN085640.D	02/03/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VN085437.D BFB Injection Date: 01/14/2025

Instrument ID: MSVOA_N BFB Injection Time: 14:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	58
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	1.4 (1.8) 1
174	50.0 - 100.0% of mass 95	76
175	5.0 - 9.0% of mass 174	5.4 (7.1) 1
176	95.0 - 101.0% of mass 174	74.1 (97.4) 1
177	5.0 - 9.0% of mass 176	4.9 (6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC100	VSTDICC100	VN085438.D	01/14/2025	14:56
VSTDICCC050	VSTDICCC050	VN085439.D	01/14/2025	15:19
VSTDICC020	VSTDICC020	VN085440.D	01/14/2025	15:43
VSTDICC010	VSTDICC010	VN085441.D	01/14/2025	16:07
VSTDICC005	VSTDICC005	VN085442.D	01/14/2025	16:31
VSTDICC001	VSTDICC001	VN085443.D	01/14/2025	17:19

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VN085616.D BFB Injection Date: 02/03/2025

Instrument ID: MSVOA_N BFB Injection Time: 12:23

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	54.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1.4 (1.9) 1
174	50.0 - 100.0% of mass 95	76.2
175	5.0 - 9.0% of mass 174	5.5 (7.2) 1
176	95.0 - 101.0% of mass 174	75 (98.4) 1
177	5.0 - 9.0% of mass 176	5.1 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN085617.D	02/03/2025	12:56
VN0203WBL01	VN0203WBL01	VN085618.D	02/03/2025	13:34
VN0203WBS01	VN0203WBS01	VN085619.D	02/03/2025	13:58
VN0203WBSD01	VN0203WBSD01	VN085620.D	02/03/2025	14:22
JPP-6.2-013025	Q1242-02	VN085640.D	02/03/2025	22:25

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VN085617.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_N Time Analyzed: 12:56

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	193909	8.22	331362	9.10	301323	11.87
UPPER LIMIT	387818	8.718	662724	9.6	602646	12.365
LOWER LIMIT	96954.5	7.718	165681	8.6	150662	11.365
EPA SAMPLE NO.						
JPP-6.2-013025	157387	8.22	329244	9.10	308219	11.87
VN0203WBL01	183958	8.22	354826	9.10	307130	11.87
VN0203WBS01	188870	8.22	327054	9.10	287245	11.87
VN0203WBSD01	177381	8.22	316818	9.10	277592	11.87

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VN085617.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_N Time Analyzed: 12:56

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	152662	13.788				
UPPER LIMIT	305324	14.288				
LOWER LIMIT	76331	13.288				
EPA SAMPLE NO.						
JPP-6.2-013025	103804	13.79				
VN0203WBL01	111992	13.79				
VN0203WBS01	141185	13.79				
VN0203WBSD01	132351	13.79				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0203WBL01	SDG No.:	Q1242
Lab Sample ID:	VN0203WBL01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085618.D	1		02/03/25 13:34	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.4		74 - 125	101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	50.1		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.6		77 - 121	85%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	184000	8.224			
540-36-3	1,4-Difluorobenzene	355000	9.1			
3114-55-4	Chlorobenzene-d5	307000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	112000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0203WBS01	SDG No.:	Q1242
Lab Sample ID:	VN0203WBS01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085619.D	1		02/03/25 13:58	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	18.0		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	17.3		0.26	5.00	ug/L
78-93-3	2-Butanone	88.6		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	17.5		0.25	5.00	ug/L
67-66-3	Chloroform	19.0		0.26	5.00	ug/L
71-43-2	Benzene	18.6		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	17.2		0.24	5.00	ug/L
79-01-6	Trichloroethene	18.4		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	19.2		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.0		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.8		74 - 125	96%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	54.6		86 - 113	109%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.1		77 - 121	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	189000	8.224			
540-36-3	1,4-Difluorobenzene	327000	9.1			
3114-55-4	Chlorobenzene-d5	287000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	141000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0203WBSD01	SDG No.:	Q1242
Lab Sample ID:	VN0203WBSD01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085620.D	1		02/03/25 14:22	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	18.9		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	18.1		0.26	5.00	ug/L
78-93-3	2-Butanone	94.6		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	17.8		0.25	5.00	ug/L
67-66-3	Chloroform	19.8		0.26	5.00	ug/L
71-43-2	Benzene	18.8		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	17.5		0.24	5.00	ug/L
79-01-6	Trichloroethene	18.2		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	19.1		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.6		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.0		74 - 125	96%	SPK: 50
1868-53-7	Dibromofluoromethane	51.0		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	51.7		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		77 - 121	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	177000	8.224			
540-36-3	1,4-Difluorobenzene	317000	9.1			
3114-55-4	Chlorobenzene-d5	278000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	132000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_N Calibration Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Calibration Time(s): 14:56 17:19

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF100 = VN085438.D RRF050 = VN085439.D RRF020 = VN085440.D
RRF010 = VN085441.D RRF005 = VN085442.D RRF001 = VN085443.D

COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	$\overline{RRF}$	% RSD
Vinyl Chloride	0.697	0.686	0.727	0.711	0.781	0.819	0.737	7.1
1,1-Dichloroethene	0.548	0.533	0.556	0.526	0.559	0.497	0.537	4.3
2-Butanone	0.378	0.390	0.398	0.363	0.387	0.386	0.384	3.1
Carbon Tetrachloride	0.574	0.530	0.579	0.529	0.565	0.567	0.557	4
Chloroform	1.197	1.175	1.241	1.169	1.253	1.273	1.218	3.6
Benzene	1.551	1.449	1.527	1.376	1.474	1.400	1.463	4.7
1,2-Dichloroethane	0.569	0.547	0.575	0.522	0.574	0.517	0.551	4.8
Trichloroethene	0.362	0.324	0.352	0.310	0.343	0.352	0.341	5.8
Tetrachloroethene	0.351	0.322	0.365	0.338	0.346	0.323	0.341	4.9
Chlorobenzene	1.133	1.076	1.154	1.047	1.110	1.051	1.095	4
1,2-Dichloroethane-d4	0.774	0.831	0.754	0.762	0.914		0.807	8.3
Dibromofluoromethane	0.359	0.358	0.335	0.310	0.373		0.347	7.1
Toluene-d8	1.339	1.267	1.207	1.076	1.274		1.232	8.1
4-Bromofluorobenzene	0.475	0.449	0.410	0.357	0.417		0.422	10.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_N Calibration Date/Time: 02/03/2025 12:56

Lab File ID: VN085617.D Init. Calib. Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.737	0.636		-13.7	20
1,1-Dichloroethene	0.537	0.488		-9.13	20
2-Butanone	0.384	0.336		-12.5	20
Carbon Tetrachloride	0.557	0.512		-8.08	20
Chloroform	1.218	1.179		-3.2	20
Benzene	1.463	1.422		-2.8	20
1,2-Dichloroethane	0.551	0.500		-9.26	20
Trichloroethene	0.341	0.329		-3.52	20
Tetrachloroethene	0.341	0.330		-3.23	20
Chlorobenzene	1.095	1.101	0.3	0.55	20
1,2-Dichloroethane-d4	0.807	0.719		-10.9	20
Dibromofluoromethane	0.347	0.346		-0.29	20
Toluene-d8	1.232	1.296		5.2	20
4-Bromofluorobenzene	0.422	0.438		3.79	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-01	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1242-03	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			PCB	8082A		01/31/25	02/01/25	
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1242-03RE	**JPP-6.2-013025RE**	**SOIL**			**01/30/25**			**01/30/25**
			PCB	8082A		01/31/25	02/04/25	
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP Herbicide	8151A		02/03/25	02/03/25	
			TCLP Pesticide	8081B		02/03/25	02/03/25	

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	81.5 Decanted:
Sample Wt/Vol:	9.66 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031416.D	1	01/31/25 11:25	FB013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	33.0		5.00	29.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	12.9		50 - 150	65%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

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SOIL GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

EPA SAMPLE NO.	S1 AAA-TFT	S2	S3	S4	TOT OUT
VBF0131S1	103				0
BSF0131S1	98				0
JPP-6.2-013025	65				0
BSF0131S2	91				0

	QC LIMITS
AAA-TFT	For Water : 50-150 For Soil : 50-150

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICAT

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1242 **SAS No :** Q1242 **SDG No:** Q1242

Matrix Spike - EPA Sample No : BSF0131S1 **Datafile:** FB031415.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	173	96	50-150

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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICAT

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1242 **SAS No :** Q1242 **SDG No:** Q1242

Matrix Spike - EPA Sample No : BSF0131S2 **Datafile:** FB031420.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	168	93	50-150

LCS/LCSD % Recovery RPD : 3.0

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METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF0131S1

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: FB031413.D Lab Sample ID: VBF0131S1

Date Analyzed: 01/31/25 Time Analyzed: 9:41

GC Column: RTX-502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: FB

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSF0131S1	BSF0131S1	FB031415.D	01/31/25
JPP-6.2-013025	Q1242-01	FB031416.D	01/31/25
BSF0131S2	BSF0131S2	FB031420.D	01/31/25

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VBF0131S1	SDG No.:	Q1242
Lab Sample ID:	VBF0131S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031413.D	1	01/31/25 9:41	FB013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	45.0	U	8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	20.6		50 - 150	103%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	BSF0131S1	SDG No.:	Q1242
Lab Sample ID:	BSF0131S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031415.D	1	01/31/25 10:47	FB013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	173		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	19.5		50 - 150	98%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	BSF0131S2	SDG No.:	Q1242
Lab Sample ID:	BSF0131S2	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031420.D	1	01/31/25 13:12	FB013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	168		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.3		50 - 150	91%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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GASOLINE RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Calibration Sequence : FB011525		Test : Gasoline Range Organics	
Concentration (PPB)	**Area Count**	**Reference Factor**	**File ID**
45	1619248	35983	FB031307.D
90	2849383	31660	FB031308.D
180	5927461	32930	FB031309.D
450	17402832	38673	FB031310.D
900	36014388	40016	FB031311.D
AVG RF : 35852	**% RSD : 10.001**		**AVG RT : 8.7886**

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

DataFile: FB031412.D Analyst Name: YP/AJ Analyst Date: 01-31-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	6268334	34824	35852	2.867

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

DataFile: FB031421.D Analyst Name: YP/AJ Analyst Date: 01-31-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	5823973	32355	35852	9.754

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **Instrument ID:** FID_B

GC Column: RTX-502.2 **ID:** 0.53 **(mm)**

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION **8.7886**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
20 PPB GRO STD	20 PPB GRO STD	31 Jan 2025 9:03	FB031412.D	8.786	
VBF0131S1	VBF0131S1	31 Jan 2025 9:41	FB031413.D	8.789	
BSF0131S1	BSF0131S1	31 Jan 2025 10:47	FB031415.D	8.791	
JPP-6.2-013025	Q1242-01	31 Jan 2025 11:25	FB031416.D	8.791	
BSF0131S2	BSF0131S2	31 Jan 2025 13:12	FB031420.D	8.792	
20 PPB GRO STD	20 PPB GRO STD	31 Jan 2025 13:38	FB031421.D	8.791	

 # Column used to flag RT values with an * values outside of QC limits

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	8.6886	8.8886

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-03	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/07/25	
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP BNA	8270E		02/03/25	02/04/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID :	**JPP-6.2-013025**								
Q1242-03	JPP-6.2-013025	SOIL	Naphthalene		600.000		200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	2-Methylnaphthalene		240.000	J	200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Acenaphthene		480.000		200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Dibenzofuran		310.000	J	210	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Fluorene		390.000	J	210	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Phenanthrene		3,600.000		210	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Anthracene		910.000		210	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Carbazole		280.000	J	200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Fluoranthene		4,300.000		200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Pyrene		4,800.000		200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Benzo(a)anthracene		2,400.000		200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Chrysene		2,000.000		200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Benzo(b)fluoranthene		2,200.000		200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Benzo(k)fluoranthene		1,300.000		200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Benzo(a)pyrene		2,300.000		230	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Indeno(1,2,3-cd)pyrene		990.000		190	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Dibenzo(a,h)anthracene		310.000	J	200	420	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Benzo(g,h,i)perylene		1,100.000		200	420	ug/Kg
			Total Svoc :		**28,510.00**				
Q1242-03	JPP-6.2-013025	SOIL	.alpha.-Pinene	*	500.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	11H-Benzo[a]fluorene	*	210.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	11H-Benzo[b]fluorene	*	270.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	1H-Cyclopropa[l]phenanthrene,1a	*	280.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	2-[2-Phenylethenyl]phenol	*	210.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	2,400.000	AB	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	4b,8-Dimethyl-2-isopropylphenan	*	750.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	4H-Cyclopenta[def]phenanthrene	*	1,100.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	9,10-di(Chloromethyl)anthracene	*	250.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Anthracene, 1,2,3,4-tetrahydro-	*	260.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Benzo[e]pyrene	*	1,600.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Benzophenone	*	410.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Dibenzothiophene	*	280.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Hexadecane	*	210.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Naphthalene, 2-phenyl-	*	230.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	p-Cymene	*	310.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Phenanthrene, 1-methyl-	*	450.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Phenanthrene, 2-methyl-	*	630.000	J	0	0	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1242-03	JPP-6.2-013025	SOIL	Pyrene, 1-methyl-	* 360.000	J	0	0	ug/Kg
Q1242-03	JPP-6.2-013025	SOIL	Retene	* 230.000	J	0	0	ug/Kg
			Total Tics :	**10,940.00**				
			Total Concentration:	**39,450.00**				

SAMPLE DATA

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	81.2
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141526.D	2	01/31/25 10:20	02/07/25 23:27	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	810	U	450	810	ug/Kg
108-95-2	Phenol	420	U	200	420	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	420	U	210	420	ug/Kg
95-57-8	2-Chlorophenol	420	U	210	420	ug/Kg
95-48-7	2-Methylphenol	420	U	200	420	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	420	U	220	420	ug/Kg
98-86-2	Acetophenone	420	UQ	210	420	ug/Kg
65794-96-9	3+4-Methylphenols	810	U	200	810	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	200	U	99.0	200	ug/Kg
67-72-1	Hexachloroethane	420	U	200	420	ug/Kg
98-95-3	Nitrobenzene	420	U	220	420	ug/Kg
78-59-1	Isophorone	420	U	210	420	ug/Kg
88-75-5	2-Nitrophenol	420	U	230	420	ug/Kg
105-67-9	2,4-Dimethylphenol	420	U	230	420	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	420	U	210	420	ug/Kg
120-83-2	2,4-Dichlorophenol	420	U	190	420	ug/Kg
91-20-3	Naphthalene	600		200	420	ug/Kg
106-47-8	4-Chloroaniline	420	U	200	420	ug/Kg
87-68-3	Hexachlorobutadiene	420	U	200	420	ug/Kg
105-60-2	Caprolactam	810	U	210	810	ug/Kg
59-50-7	4-Chloro-3-methylphenol	420	U	190	420	ug/Kg
91-57-6	2-Methylnaphthalene	240	J	200	420	ug/Kg
77-47-4	Hexachlorocyclopentadiene	810	UQ	380	810	ug/Kg
88-06-2	2,4,6-Trichlorophenol	420	U	180	420	ug/Kg
95-95-4	2,4,5-Trichlorophenol	420	U	180	420	ug/Kg
92-52-4	1,1-Biphenyl	420	U	210	420	ug/Kg
91-58-7	2-Chloronaphthalene	420	U	200	420	ug/Kg
88-74-4	2-Nitroaniline	420	U	230	420	ug/Kg
131-11-3	Dimethylphthalate	420	U	200	420	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	81.2
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141526.D	2	01/31/25 10:20	02/07/25 23:27	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	420	U	210	420	ug/Kg
606-20-2	2,6-Dinitrotoluene	420	U	200	420	ug/Kg
99-09-2	3-Nitroaniline	420	U	220	420	ug/Kg
83-32-9	Acenaphthene	480		200	420	ug/Kg
51-28-5	2,4-Dinitrophenol	810	U	600	810	ug/Kg
100-02-7	4-Nitrophenol	810	U	290	810	ug/Kg
132-64-9	Dibenzofuran	310	J	210	420	ug/Kg
121-14-2	2,4-Dinitrotoluene	420	U	210	420	ug/Kg
84-66-2	Diethylphthalate	420	U	200	420	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	420	U	210	420	ug/Kg
86-73-7	Fluorene	390	J	210	420	ug/Kg
100-01-6	4-Nitroaniline	420	U	260	420	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	810	U	290	810	ug/Kg
86-30-6	n-Nitrosodiphenylamine	420	U	200	420	ug/Kg
101-55-3	4-Bromophenyl-phenylether	420	U	190	420	ug/Kg
118-74-1	Hexachlorobenzene	420	U	210	420	ug/Kg
1912-24-9	Atrazine	420	U	220	420	ug/Kg
87-86-5	Pentachlorophenol	810	U	190	810	ug/Kg
85-01-8	Phenanthrene	3600		210	420	ug/Kg
120-12-7	Anthracene	910		210	420	ug/Kg
86-74-8	Carbazole	280	J	200	420	ug/Kg
84-74-2	Di-n-butylphthalate	420	U	210	420	ug/Kg
206-44-0	Fluoranthene	4300		200	420	ug/Kg
129-00-0	Pyrene	4800		200	420	ug/Kg
85-68-7	Butylbenzylphthalate	420	U	240	420	ug/Kg
91-94-1	3,3-Dichlorobenzidine	810	U	240	810	ug/Kg
56-55-3	Benzo(a)anthracene	2400		200	420	ug/Kg
218-01-9	Chrysene	2000		200	420	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	420	U	220	420	ug/Kg
117-84-0	Di-n-octyl phthalate	810	U	270	810	ug/Kg
205-99-2	Benzo(b)fluoranthene	2200		200	420	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	81.2
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141526.D	2	01/31/25 10:20	02/07/25 23:27	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1300		200	420	ug/Kg
50-32-8	Benzo(a)pyrene	2300		230	420	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	990		190	420	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	310	J	200	420	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1100		200	420	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	420	U	210	420	ug/Kg
123-91-1	1,4-Dioxane	420	U	270	420	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	420	U	180	420	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	11.5	*	18 - 112	8%	SPK: 150
13127-88-3	Phenol-d6	61.9		15 - 107	41%	SPK: 150
4165-60-0	Nitrobenzene-d5	60.4		18 - 107	60%	SPK: 100
321-60-8	2-Fluorobiphenyl	65.5		20 - 109	65%	SPK: 100
118-79-6	2,4,6-Tribromophenol	5.80	*	10 - 116	4%	SPK: 150
1718-51-0	Terphenyl-d14	66.5		10 - 105	67%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	82600	6.793			
1146-65-2	Naphthalene-d8	302000	8.075			
15067-26-2	Acenaphthene-d10	146000	9.828			
1517-22-2	Phenanthrene-d10	231000	11.316			
1719-03-5	Chrysene-d12	137000	13.963			
1520-96-3	Perylene-d12	112000	15.439			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2400	AB		4.99	ug/Kg
000080-56-8	.alpha.-Pinene	500	J		6.06	ug/Kg
000099-87-6	p-Cymene	310	J		6.87	ug/Kg
000544-76-3	Hexadecane	210	J		9.23	ug/Kg
000119-61-9	Benzophenone	410	J		10.5	ug/Kg
042224-48-6	2-[2-Phenylethenyl]phenol	210	J		11.1	ug/Kg
002141-42-6	Anthracene, 1,2,3,4-tetrahydro-	260	J		11.2	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	81.2
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141526.D	2	01/31/25 10:20	02/07/25 23:27	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000132-65-0	Dibenzothiophene	280	J		11.2	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	450	J		11.8	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	630	J		11.8	ug/Kg
000949-41-7	1H-Cyclopropa[l]phenanthrene,1a,9b	280	J		11.9	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	1100	J		11.9	ug/Kg
000612-94-2	Naphthalene, 2-phenyl-	230	J		12.1	ug/Kg
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	750	J		12.3	ug/Kg
010387-13-0	9,10-di(Chloromethyl)anthracene	250	J		12.4	ug/Kg
000238-84-6	11H-Benzo[a]fluorene	210	J		13.0	ug/Kg
000483-65-8	Retene	230	J		13.0	ug/Kg
000243-17-4	11H-Benzo[b]fluorene	270	J		13.1	ug/Kg
002381-21-7	Pyrene, 1-methyl-	360	J		13.2	ug/Kg
000192-97-2	Benzo[e]pyrene	1600	J		15.3	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB166418BL	PB166418BL	2-Fluorophenol	150	134	89		18	112
		Phenol-d6	150	129	86		15	107
		Nitrobenzene-d5	100	96.1	96		18	107
		2-Fluorobiphenyl	100	96.5	97		20	109
		2,4,6-Tribromophenol	150	147	98		10	116
		Terphenyl-d14	100	94.3	94		10	105
PB166418BS	PB166418BS	2-Fluorophenol	150	139	92		18	112
		Phenol-d6	150	133	89		15	107
		Nitrobenzene-d5	100	97.1	97		18	107
		2-Fluorobiphenyl	100	98.9	99		20	109
		2,4,6-Tribromophenol	150	160	106		10	116
		Terphenyl-d14	100	96.1	96		10	105
Q1239-10MS	357MS	2-Fluorophenol	150	80.0	53		18	112
		Phenol-d6	150	78.3	52		15	107
		Nitrobenzene-d5	100	54.3	54		18	107
		2-Fluorobiphenyl	100	53.2	53		20	109
		2,4,6-Tribromophenol	150	80.6	54		10	116
		Terphenyl-d14	100	46.0	46		10	105
Q1239-10MSD	357MSD	2-Fluorophenol	150	84.0	56		18	112
		Phenol-d6	150	82.0	55		15	107
		Nitrobenzene-d5	100	57.9	58		18	107
		2-Fluorobiphenyl	100	55.5	55		20	109
		2,4,6-Tribromophenol	150	84.1	56		10	116
		Terphenyl-d14	100	49.7	50		10	105
Q1242-03	JPP-6.2-013025	2-Fluorophenol	150	11.5	8	*	18	112
		Phenol-d6	150	61.9	41		15	107
		Nitrobenzene-d5	100	60.4	60		18	107
		2-Fluorobiphenyl	100	65.5	65		20	109
		2,4,6-Tribromophenol	150	5.80	4	*	10	116
		Terphenyl-d14	100	66.5	67		10	105

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1239-10MS		**Client Sample ID: 357MS**						**DataFile: BF141345.D**			
Benzaldehyde	1200	0	1000	ug/Kg	83				10	86	
Phenol	1200	0	880	ug/Kg	73				67	126	
bis(2-Chloroethyl)ether	1200	0	900	ug/Kg	75				54	125	
2-Chlorophenol	1200	0	900	ug/Kg	75	*			79	107	
2-Methylphenol	1200	0	860	ug/Kg	72				66	122	
2,2-oxybis(1-Chloropropane)	1200	0	880	ug/Kg	73				65	110	
Acetophenone	1200	0	990	ug/Kg	83				75	111	
3+4-Methylphenols	1200	0	920	ug/Kg	77				66	104	
N-Nitroso-di-n-propylamine	1200	0	900	ug/Kg	75				59	119	
Hexachloroethane	1200	0	860	ug/Kg	72				65	117	
Nitrobenzene	1200	0	840	ug/Kg	70				70	119	
Isophorone	1200	0	900	ug/Kg	75	*			76	122	
2-Nitrophenol	1200	0	900	ug/Kg	75				54	145	
2,4-Dimethylphenol	1200	0	1100	ug/Kg	92				44	135	
bis(2-Chloroethoxy)methane	1200	0	880	ug/Kg	73				68	112	
2,4-Dichlorophenol	1200	0	900	ug/Kg	75				72	118	
Naphthalene	1200	0	850	ug/Kg	71	*			72	110	
4-Chloroaniline	1200	0	210	ug/Kg	18				10	91	
Hexachlorobutadiene	1200	0	840	ug/Kg	70				66	114	
Caprolactam	1200	0	990	ug/Kg	83				51	134	
4-Chloro-3-methylphenol	1200	0	870	ug/Kg	73				57	132	
2-Methylnaphthalene	1200	0	840	ug/Kg	70				59	123	
Hexachlorocyclopentadiene	2400	0	3200	ug/Kg	133				10	175	
2,4,6-Trichlorophenol	1200	0	920	ug/Kg	77				72	117	
2,4,5-Trichlorophenol	1200	0	890	ug/Kg	74				72	117	
1,1-Biphenyl	1200	0	990	ug/Kg	83				75	113	
2-Chloronaphthalene	1200	0	850	ug/Kg	71				67	118	
2-Nitroaniline	1200	0	900	ug/Kg	75				69	127	
Dimethylphthalate	1200	0	910	ug/Kg	76				70	113	
Acenaphthylene	1200	0	940	ug/Kg	78	*			79	118	
2,6-Dinitrotoluene	1200	0	860	ug/Kg	72				70	125	
3-Nitroaniline	1200	0	530	ug/Kg	44				30	99	
Acenaphthene	1200	0	980	ug/Kg	82				70	121	
2,4-Dinitrophenol	2400	0	2200	ug/Kg	92				10	155	
4-Nitrophenol	2400	0	1600	ug/Kg	67				45	133	
Dibenzofuran	1200	0	870	ug/Kg	73				72	110	
2,4-Dinitrotoluene	1200	0	880	ug/Kg	73				55	128	
Diethylphthalate	1200	0	900	ug/Kg	75				70	112	
4-Chlorophenyl-phenylether	1200	0	850	ug/Kg	71				71	108	
Fluorene	1200	0	850	ug/Kg	71				68	116	
4-Nitroaniline	1200	0	800	ug/Kg	67				55	120	
4,6-Dinitro-2-methylphenol	1200	0	1100	ug/Kg	92				10	160	
N-Nitrosodiphenylamine	1200	0	990	ug/Kg	83				73	118	
4-Bromophenyl-phenylether	1200	0	970	ug/Kg	81				65	121	
Hexachlorobenzene	1200	0	940	ug/Kg	78				67	118	
Atrazine	1200	0	1000	ug/Kg	83				79	127	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Pentachlorophenol	2400	0	1800	ug/Kg	75				47	128	
Phenanthrene	1200	0	940	ug/Kg	78				52	128	
Anthracene	1200	0	950	ug/Kg	79				62	124	
Carbazole	1200	0	850	ug/Kg	71				59	119	
Di-n-butylphthalate	1200	0	960	ug/Kg	80				69	118	
Fluoranthene	1200	0	840	ug/Kg	70				44	125	
Pyrene	1200	0	740	ug/Kg	62				26	142	
Butylbenzylphthalate	1200	0	860	ug/Kg	72				64	126	
3,3-Dichlorobenzidine	1200	0	670	ug/Kg	56				33	116	
Benzo(a)anthracene	1200	0	860	ug/Kg	72				71	114	
Chrysene	1200	0	910	ug/Kg	76				57	121	
bis(2-Ethylhexyl)phthalate	1200	0	890	ug/Kg	74				42	169	
Di-n-octyl phthalate	1200	0	1000	ug/Kg	83				23	175	
Benzo(b)fluoranthene	1200	0	1000	ug/Kg	83				67	121	
Benzo(k)fluoranthene	1200	0	890	ug/Kg	74				57	134	
Benzo(a)pyrene	1200	0	990	ug/Kg	83				70	142	
Indeno(1,2,3-cd)pyrene	1200	0	720	ug/Kg	60				40	129	
Dibenz(a,h)anthracene	1200	0	730	ug/Kg	61				43	123	
Benzo(g,h,i)perylene	1200	0	640	ug/Kg	53				24	125	
1,2,4,5-Tetrachlorobenzene	1200	0	960	ug/Kg	80				69	124	
1,4-Dioxane	1200	0	900	ug/Kg	75				46	112	
2,3,4,6-Tetrachlorophenol	1200	0	930	ug/Kg	78				69	112	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1239-10MSD		**Client Sample ID: 357MSD**						**DataFile:**	**BF141346.D**		
Benzaldehyde	1200	0	1100	ug/Kg	92	*	10		10	86	20
Phenol	1200	0	920	ug/Kg	77		5		67	126	20
bis(2-Chloroethyl)ether	1200	0	940	ug/Kg	78		4		54	125	20
2-Chlorophenol	1200	0	950	ug/Kg	79		5		79	107	20
2-Methylphenol	1200	0	900	ug/Kg	75		4		66	122	20
2,2-oxybis(1-Chloropropane)	1200	0	920	ug/Kg	77		5		65	110	20
Acetophenone	1200	0	1100	ug/Kg	92		10		75	111	20
3+4-Methylphenols	1200	0	970	ug/Kg	81		5		66	104	20
N-Nitroso-di-n-propylamine	1200	0	940	ug/Kg	78		4		59	119	20
Hexachloroethane	1200	0	910	ug/Kg	76		5		65	117	20
Nitrobenzene	1200	0	910	ug/Kg	76		8		70	119	20
Isophorone	1200	0	960	ug/Kg	80		6		76	122	20
2-Nitrophenol	1200	0	970	ug/Kg	81		8		54	145	20
2,4-Dimethylphenol	1200	0	1200	ug/Kg	100		8		44	135	20
bis(2-Chloroethoxy)methane	1200	0	950	ug/Kg	79		8		68	112	20
2,4-Dichlorophenol	1200	0	950	ug/Kg	79		5		72	118	20
Naphthalene	1200	0	900	ug/Kg	75		5		72	110	20
4-Chloroaniline	1200	0	240	ug/Kg	20		11		10	91	20
Hexachlorobutadiene	1200	0	890	ug/Kg	74		6		66	114	20
Caprolactam	1200	0	1100	ug/Kg	92		10		51	134	20
4-Chloro-3-methylphenol	1200	0	930	ug/Kg	78		7		57	132	20
2-Methylnaphthalene	1200	0	890	ug/Kg	74		6		59	123	20
Hexachlorocyclopentadiene	2400	0	3400	ug/Kg	142		7		10	175	20
2,4,6-Trichlorophenol	1200	0	970	ug/Kg	81		5		72	117	20
2,4,5-Trichlorophenol	1200	0	950	ug/Kg	79		7		72	117	20
1,1-Biphenyl	1200	0	1000	ug/Kg	83		0		75	113	20
2-Chloronaphthalene	1200	0	900	ug/Kg	75		5		67	118	20
2-Nitroaniline	1200	0	950	ug/Kg	79		5		69	127	20
Dimethylphthalate	1200	0	970	ug/Kg	81		6		70	113	20
Acenaphthylene	1200	0	990	ug/Kg	83		6		79	118	20
2,6-Dinitrotoluene	1200	0	910	ug/Kg	76		5		70	125	20
3-Nitroaniline	1200	0	550	ug/Kg	46		4		30	99	20
Acenaphthene	1200	0	1000	ug/Kg	83		1		70	121	20
2,4-Dinitrophenol	2400	0	2300	ug/Kg	96		4		10	155	20
4-Nitrophenol	2400	0	1700	ug/Kg	71		6		45	133	20
Dibenzofuran	1200	0	920	ug/Kg	77		5		72	110	20
2,4-Dinitrotoluene	1200	0	930	ug/Kg	78		7		55	128	20
Diethylphthalate	1200	0	950	ug/Kg	79		5		70	112	20
4-Chlorophenyl-phenylether	1200	0	900	ug/Kg	75		5		71	108	20
Fluorene	1200	0	900	ug/Kg	75		5		68	116	20
4-Nitroaniline	1200	0	870	ug/Kg	73		9		55	120	20
4,6-Dinitro-2-methylphenol	1200	0	1200	ug/Kg	100		8		10	160	20
N-Nitrosodiphenylamine	1200	0	1100	ug/Kg	92		10		73	118	20
4-Bromophenyl-phenylether	1200	0	1000	ug/Kg	83		2		65	121	20
Hexachlorobenzene	1200	0	990	ug/Kg	83		6		67	118	20
Atrazine	1200	0	1100	ug/Kg	92		10		79	127	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Pentachlorophenol	2400	0	2000	ug/Kg	83		10		47	128	20
Phenanthrene	1200	0	1000	ug/Kg	83		6		52	128	20
Anthracene	1200	0	1000	ug/Kg	83		5		62	124	20
Carbazole	1200	0	920	ug/Kg	77		8		59	119	20
Di-n-butylphthalate	1200	0	1000	ug/Kg	83		4		69	118	20
Fluoranthene	1200	0	920	ug/Kg	77		10		44	125	20
Pyrene	1200	0	810	ug/Kg	68		9		26	142	20
Butylbenzylphthalate	1200	0	930	ug/Kg	78		8		64	126	20
3,3-Dichlorobenzidine	1200	0	750	ug/Kg	63		12		33	116	20
Benzo(a)anthracene	1200	0	930	ug/Kg	78		8		71	114	20
Chrysene	1200	0	980	ug/Kg	82		8		57	121	20
bis(2-Ethylhexyl)phthalate	1200	0	970	ug/Kg	81		9		42	169	20
Di-n-octyl phthalate	1200	0	1100	ug/Kg	92		10		23	175	20
Benzo(b)fluoranthene	1200	0	990	ug/Kg	83		0		67	121	20
Benzo(k)fluoranthene	1200	0	1100	ug/Kg	92		22	*	57	134	20
Benzo(a)pyrene	1200	0	1100	ug/Kg	92		10		70	142	20
Indeno(1,2,3-cd)pyrene	1200	0	770	ug/Kg	64		6		40	129	20
Dibenz(a,h)anthracene	1200	0	780	ug/Kg	65		6		43	123	20
Benzo(g,h,i)perylene	1200	0	690	ug/Kg	58		9		24	125	20
1,2,4,5-Tetrachlorobenzene	1200	0	1000	ug/Kg	83		4		69	124	20
1,4-Dioxane	1200	0	950	ug/Kg	79		5		46	112	20
2,3,4,6-Tetrachlorophenol	1200	0	1000	ug/Kg	83		6		69	112	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141441.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB166418BS	Benzaldehyde	1700	1700	ug/Kg	100				10	133	
	Phenol	1700	1400	ug/Kg	82				62	112	
	bis(2-Chloroethyl)ether	1700	1400	ug/Kg	82				60	101	
	2-Chlorophenol	1700	1500	ug/Kg	88				65	112	
	2-Methylphenol	1700	1400	ug/Kg	82				61	108	
	2,2-oxybis(1-Chloropropane)	1700	1300	ug/Kg	76				51	100	
	Acetophenone	1700	1700	ug/Kg	100		*		66	98	
	3+4-Methylphenols	1700	1500	ug/Kg	88				58	111	
	N-Nitroso-di-n-propylamine	1700	1400	ug/Kg	82				63	95	
	Hexachloroethane	1700	1500	ug/Kg	88				72	108	
	Nitrobenzene	1700	1400	ug/Kg	82				57	101	
	Isophorone	1700	1500	ug/Kg	88				59	99	
	2-Nitrophenol	1700	1500	ug/Kg	88				61	111	
	2,4-Dimethylphenol	1700	1800	ug/Kg	106				46	141	
	bis(2-Chloroethoxy)methane	1700	1300	ug/Kg	76				66	97	
	2,4-Dichlorophenol	1700	1500	ug/Kg	88				62	107	
	Naphthalene	1700	1400	ug/Kg	82				62	100	
	4-Chloroaniline	1700	580	ug/Kg	34				16	100	
	Hexachlorobutadiene	1700	1500	ug/Kg	88				53	98	
	Caprolactam	1700	1600	ug/Kg	94				67	110	
	4-Chloro-3-methylphenol	1700	1500	ug/Kg	88				58	112	
	2-Methylnaphthalene	1700	1400	ug/Kg	82				60	104	
	Hexachlorocyclopentadiene	3300	6300	ug/Kg	191		*		45	165	
	2,4,6-Trichlorophenol	1700	1500	ug/Kg	88				59	102	
	2,4,5-Trichlorophenol	1700	1400	ug/Kg	82				61	98	
	1,1-Biphenyl	1700	1600	ug/Kg	94				57	103	
	2-Chloronaphthalene	1700	1400	ug/Kg	82				58	99	
	2-Nitroaniline	1700	1500	ug/Kg	88				66	101	
	Dimethylphthalate	1700	1500	ug/Kg	88				61	99	
	Acenaphthylene	1700	1600	ug/Kg	94				63	101	
	2,6-Dinitrotoluene	1700	1400	ug/Kg	82				61	104	
	3-Nitroaniline	1700	750	ug/Kg	44				28	100	
	Acenaphthene	1700	1700	ug/Kg	100				57	104	
	2,4-Dinitrophenol	3300	3700	ug/Kg	112				37	128	
	4-Nitrophenol	3300	3200	ug/Kg	97				48	119	
	Dibenzofuran	1700	1500	ug/Kg	88				63	99	
	2,4-Dinitrotoluene	1700	1500	ug/Kg	88				60	106	
	Diethylphthalate	1700	1500	ug/Kg	88				60	101	
	4-Chlorophenyl-phenylether	1700	1500	ug/Kg	88				58	98	
	Fluorene	1700	1500	ug/Kg	88				61	101	
	4-Nitroaniline	1700	1500	ug/Kg	88				64	103	
	4,6-Dinitro-2-methylphenol	1700	1700	ug/Kg	100				76	113	
	N-Nitrosodiphenylamine	1700	1500	ug/Kg	88				71	99	
	4-Bromophenyl-phenylether	1700	1500	ug/Kg	88				66	102	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141441.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166418BS	Hexachlorobenzene	1700	1500	ug/Kg	88				64	98	
	Atrazine	1700	1700	ug/Kg	100				47	152	
	Pentachlorophenol	3300	3100	ug/Kg	94				67	105	
	Phenanthrene	1700	1500	ug/Kg	88				59	103	
	Anthracene	1700	1600	ug/Kg	94				61	105	
	Carbazole	1700	1600	ug/Kg	94				61	99	
	Di-n-butylphthalate	1700	1500	ug/Kg	88				58	104	
	Fluoranthene	1700	1600	ug/Kg	94				57	107	
	Pyrene	1700	1400	ug/Kg	82				59	103	
	Butylbenzylphthalate	1700	1500	ug/Kg	88				55	103	
	3,3-Dichlorobenzidine	1700	710	ug/Kg	42				42	91	
	Benzo(a)anthracene	1700	1500	ug/Kg	88				60	102	
	Chrysene	1700	1400	ug/Kg	82				59	101	
	bis(2-Ethylhexyl)phthalate	1700	1500	ug/Kg	88				54	135	
	Di-n-octyl phthalate	1700	1400	ug/Kg	82				52	137	
	Benzo(b)fluoranthene	1700	1400	ug/Kg	82				62	109	
	Benzo(k)fluoranthene	1700	1600	ug/Kg	94				62	109	
	Benzo(a)pyrene	1700	1600	ug/Kg	94				63	103	
	Indeno(1,2,3-cd)pyrene	1700	1500	ug/Kg	88				63	101	
	Dibenz(a,h)anthracene	1700	1500	ug/Kg	88				61	112	
	Benzo(g,h,i)perylene	1700	1400	ug/Kg	82				70	108	
	1,2,4,5-Tetrachlorobenzene	1700	1600	ug/Kg	94				53	101	
	1,4-Dioxane	1700	1300	ug/Kg	76				50	96	
	2,3,4,6-Tetrachlorophenol	1700	1600	ug/Kg	94				59	108	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166418BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141440.D Lab Sample ID: PB166418BL

Instrument ID: BNA_F Date Extracted: 01/31/2025

Matrix: (soil/water) SOIL Date Analyzed: 02/05/2025

Level: (low/med) LOW Time Analyzed: 12:13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166418BS	PB166418BS	BF141441.D	02/05/2025
JPP-6.2-013025	Q1242-03	BF141526.D	02/07/2025
357MS	Q1239-10MS	BF141345.D	01/31/2025
357MSD	Q1239-10MSD	BF141346.D	01/31/2025

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141289.D DFTPP Injection Date: 01/29/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.1
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	47.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	26.5
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	13.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.2 (19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141290.D	01/29/2025	10:30
SSTDICC005	SSTDICC005	BF141291.D	01/29/2025	10:56
SSTDICC010	SSTDICC010	BF141292.D	01/29/2025	11:49
SSTDICC020	SSTDICC020	BF141293.D	01/29/2025	15:17
SSTDICCC040	SSTDICCC040	BF141294.D	01/29/2025	15:45
SSTDICC050	SSTDICC050	BF141295.D	01/29/2025	16:11
SSTDICC060	SSTDICC060	BF141296.D	01/29/2025	16:38
SSTDICC080	SSTDICC080	BF141297.D	01/29/2025	17:05

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141335.D DFTPP Injection Date: 01/31/2025

Instrument ID: BNA_F DFTPP Injection Time: 16:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	46.2
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	38.1
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	49
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.8
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	11.7
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.6 (19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141336.D	01/31/2025	17:19
357MS	Q1239-10MS	BF141345.D	01/31/2025	21:23
357MSD	Q1239-10MSD	BF141346.D	01/31/2025	21:50

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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141434.D DFTPP Injection Date: 02/05/2025

Instrument ID: BNA_F DFTPP Injection Time: 09:36

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	42.7
68	Less than 2.0% of mass 69	0.7 (2) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	48.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 60.0% of mass 198	26.8
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	12.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.5 (19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141435.D	02/05/2025	10:02
PB166418BL	PB166418BL	BF141440.D	02/05/2025	12:13
PB166418BS	PB166418BS	BF141441.D	02/05/2025	12:39

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141471.D DFTPP Injection Date: 02/06/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:41

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	43.2
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	49.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.6
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	12.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.4 (18.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141472.D	02/06/2025	11:07
SSTDICC005	SSTDICC005	BF141473.D	02/06/2025	11:34
SSTDICC010	SSTDICC010	BF141474.D	02/06/2025	12:00
SSTDICC020	SSTDICC020	BF141475.D	02/06/2025	12:26
SSTDICCC040	SSTDICCC040	BF141476.D	02/06/2025	12:55
SSTDICC050	SSTDICC050	BF141477.D	02/06/2025	13:21
SSTDICC060	SSTDICC060	BF141478.D	02/06/2025	13:47
SSTDICC080	SSTDICC080	BF141479.D	02/06/2025	14:14

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141505.D DFTPP Injection Date: 02/07/2025

Instrument ID: BNA_F DFTPP Injection Time: 14:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	40.6
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.7
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	47.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	13.6
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.3 (18.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141506.D	02/07/2025	14:33
JPP-6.2-013025	Q1242-03	BF141526.D	02/07/2025	23:27

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/31/2025

Lab File ID: BF141336.D Time Analyzed: 17:19

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	140033	6.798	558386	8.08	299701	9.84
	UPPER LIMIT	280066	7.298	1116770	8.581	599402	10.339
	LOWER LIMIT	70016.5	6.298	279193	7.581	149851	9.339
	EPA SAMPLE NO.						
01	357MS	151192	6.80	601644	8.08	313664	9.84
02	357MSD	149445	6.80	587795	8.08	309142	9.84

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/31/2025

Lab File ID: BF141336.D Time Analyzed: 17:19

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	493954	11.322	281629	13.968	286623	15.433
	UPPER LIMIT	987908	11.822	563258	14.468	573246	15.933
	LOWER LIMIT	246977	10.822	140815	13.468	143312	14.933
	EPA SAMPLE NO.						
01	357MS	473142	11.32	293043	13.97	307605	15.43
02	357MSD	457150	11.32	288493	13.97	294341	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141435.D Time Analyzed: 10:02

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	78610	6.792	301871	8.08	162758	9.83
	UPPER LIMIT	157220	7.292	603742	8.575	325516	10.328
	LOWER LIMIT	39305	6.292	150936	7.575	81379	9.328
	EPA SAMPLE NO.						
01	PB166418BL	76450	6.79	302478	8.07	163001	9.83
02	PB166418BS	69377	6.79	275008	8.08	148846	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141435.D Time Analyzed: 10:02

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	271503	11.316	168458	13.963	170248	15.427
	UPPER LIMIT	543006	11.816	336916	14.463	340496	15.927
	LOWER LIMIT	135752	10.816	84229	13.463	85124	14.927
	EPA SAMPLE NO.						
01	PB166418BL	280778	11.32	198135	13.96	160441	15.43
02	PB166418BS	260150	11.32	177509	13.96	152303	15.43

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/07/2025

Lab File ID: BF141506.D Time Analyzed: 14:33

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	91880	6.787	360290	8.08	198348	9.83
	UPPER LIMIT	183760	7.287	720580	8.575	396696	10.328
	LOWER LIMIT	45940	6.287	180145	7.575	99174	9.328
	EPA SAMPLE NO.						
01	JPP-6.2-013025	82584	6.79	302243	8.08	145966	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/07/2025

Lab File ID: BF141506.D Time Analyzed: 14:33

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	340922	11.316	238177	13.957	192868	15.416
	UPPER LIMIT	681844	11.816	476354	14.457	385736	15.916
	LOWER LIMIT	170461	10.816	119089	13.457	96434	14.916
	EPA SAMPLE NO.						
01	JPP-6.2-013025	230674	11.32	136591	13.96	112034	15.44

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BL	SDG No.:	Q1242
Lab Sample ID:	PB166418BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	330	U	180	330	ug/Kg
108-95-2	Phenol	170	U	82.8	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	170	U	83.6	170	ug/Kg
95-57-8	2-Chlorophenol	170	U	83.4	170	ug/Kg
95-48-7	2-Methylphenol	170	U	80.5	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	170	U	90.8	170	ug/Kg
98-86-2	Acetophenone	170	U	86.8	170	ug/Kg
65794-96-9	3+4-Methylphenols	330	U	79.7	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	79.9	U	40.3	79.9	ug/Kg
67-72-1	Hexachloroethane	170	U	82.9	170	ug/Kg
98-95-3	Nitrobenzene	170	U	90.7	170	ug/Kg
78-59-1	Isophorone	170	U	84.5	170	ug/Kg
88-75-5	2-Nitrophenol	170	U	94.4	170	ug/Kg
105-67-9	2,4-Dimethylphenol	170	U	93.1	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	170	U	85.7	170	ug/Kg
120-83-2	2,4-Dichlorophenol	170	U	75.4	170	ug/Kg
91-20-3	Naphthalene	170	U	82.5	170	ug/Kg
106-47-8	4-Chloroaniline	170	U	82.5	170	ug/Kg
87-68-3	Hexachlorobutadiene	170	U	83.2	170	ug/Kg
105-60-2	Caprolactam	330	U	86.7	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	170	U	77.4	170	ug/Kg
91-57-6	2-Methylnaphthalene	170	U	82.4	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	330	U	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	170	U	71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	170	U	74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	170	U	87.3	170	ug/Kg
91-58-7	2-Chloronaphthalene	170	U	83.2	170	ug/Kg
88-74-4	2-Nitroaniline	170	U	94.9	170	ug/Kg
131-11-3	Dimethylphthalate	170	U	81.6	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BL	SDG No.:	Q1242
Lab Sample ID:	PB166418BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	170	U	86.4	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	170	U	83.1	170	ug/Kg
99-09-2	3-Nitroaniline	170	U	89.1	170	ug/Kg
83-32-9	Acenaphthene	170	U	81.0	170	ug/Kg
51-28-5	2,4-Dinitrophenol	330	U	240	330	ug/Kg
100-02-7	4-Nitrophenol	330	U	120	330	ug/Kg
132-64-9	Dibenzofuran	170	U	84.3	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	170	U	86.1	170	ug/Kg
84-66-2	Diethylphthalate	170	U	80.0	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	170	U	85.5	170	ug/Kg
86-73-7	Fluorene	170	U	85.4	170	ug/Kg
100-01-6	4-Nitroaniline	170	U	110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	330	U	120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	170	U	81.5	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	170	U	78.8	170	ug/Kg
118-74-1	Hexachlorobenzene	170	U	84.9	170	ug/Kg
1912-24-9	Atrazine	170	U	91.3	170	ug/Kg
87-86-5	Pentachlorophenol	330	U	77.2	330	ug/Kg
85-01-8	Phenanthrene	170	U	83.9	170	ug/Kg
120-12-7	Anthracene	170	U	84.3	170	ug/Kg
86-74-8	Carbazole	170	U	80.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	170	U	84.2	170	ug/Kg
206-44-0	Fluoranthene	170	U	81.6	170	ug/Kg
129-00-0	Pyrene	170	U	82.9	170	ug/Kg
85-68-7	Butylbenzylphthalate	170	U	96.7	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	330	U	98.5	330	ug/Kg
56-55-3	Benzo(a)anthracene	170	U	80.6	170	ug/Kg
218-01-9	Chrysene	170	U	79.4	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	170	U	90.9	170	ug/Kg
117-84-0	Di-n-octyl phthalate	330	U	110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	170	U	81.0	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BL	SDG No.:	Q1242
Lab Sample ID:	PB166418BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	170	U	82.5	170	ug/Kg
50-32-8	Benzo(a)pyrene	170	U	92.9	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	170	U	78.0	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	170	U	81.1	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	170	U	80.0	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U	86.7	170	ug/Kg
123-91-1	1,4-Dioxane	170	U	110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	170	U	74.7	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	134		18 - 112	89%	SPK: 150
13127-88-3	Phenol-d6	129		15 - 107	86%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.1		18 - 107	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	96.5		20 - 109	97%	SPK: 100
118-79-6	2,4,6-Tribromophenol	147		10 - 116	98%	SPK: 150
1718-51-0	Terphenyl-d14	94.3		10 - 105	94%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	76500	6.786			
1146-65-2	Naphthalene-d8	302000	8.069			
15067-26-2	Acenaphthene-d10	163000	9.827			
1517-22-2	Phenanthrene-d10	281000	11.316			
1719-03-5	Chrysene-d12	198000	13.957			
1520-96-3	Perylene-d12	160000	15.433			
TENTATIVE IDENTIFIED COMPOUNDS						
004744-10-9	Propane, 1,1-dimethoxy-	120	J		2.17	ug/Kg
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	71.0	A		5.02	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	
Client Sample ID:	PB166418BL			SDG No.:	Q1242
Lab Sample ID:	PB166418BL			Matrix:	SOIL
Analytical Method:	SW8270			% Solid:	100
Sample Wt/Vol:	30.02	Units:	g	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC-TCL BNA -20
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BS	SDG No.:	Q1242
Lab Sample ID:	PB166418BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1700		180	330	ug/Kg
108-95-2	Phenol	1400		82.9	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1400		83.7	170	ug/Kg
95-57-8	2-Chlorophenol	1500		83.5	170	ug/Kg
95-48-7	2-Methylphenol	1400		80.6	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1300		90.9	170	ug/Kg
98-86-2	Acetophenone	1700		86.9	170	ug/Kg
65794-96-9	3+4-Methylphenols	1500		79.8	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1400		40.3	80.0	ug/Kg
67-72-1	Hexachloroethane	1500		83.0	170	ug/Kg
98-95-3	Nitrobenzene	1400		90.8	170	ug/Kg
78-59-1	Isophorone	1500		84.6	170	ug/Kg
88-75-5	2-Nitrophenol	1500		94.5	170	ug/Kg
105-67-9	2,4-Dimethylphenol	1800		93.2	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1300		85.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1500		75.5	170	ug/Kg
91-20-3	Naphthalene	1400		82.6	170	ug/Kg
106-47-8	4-Chloroaniline	580		82.6	170	ug/Kg
87-68-3	Hexachlorobutadiene	1500		83.3	170	ug/Kg
105-60-2	Caprolactam	1600		86.8	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		77.5	170	ug/Kg
91-57-6	2-Methylnaphthalene	1400		82.5	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	6300	E	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1500		71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1400		74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	1600		87.4	170	ug/Kg
91-58-7	2-Chloronaphthalene	1400		83.3	170	ug/Kg
88-74-4	2-Nitroaniline	1500		95.0	170	ug/Kg
131-11-3	Dimethylphthalate	1500		81.7	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BS	SDG No.:	Q1242
Lab Sample ID:	PB166418BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1600		86.5	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	1400		83.2	170	ug/Kg
99-09-2	3-Nitroaniline	750		89.2	170	ug/Kg
83-32-9	Acenaphthene	1700		81.1	170	ug/Kg
51-28-5	2,4-Dinitrophenol	3700	E	240	330	ug/Kg
100-02-7	4-Nitrophenol	3200	E	120	330	ug/Kg
132-64-9	Dibenzofuran	1500		84.4	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	1500		86.2	170	ug/Kg
84-66-2	Diethylphthalate	1500		80.1	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1500		85.6	170	ug/Kg
86-73-7	Fluorene	1500		85.5	170	ug/Kg
100-01-6	4-Nitroaniline	1500		110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1700		120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1500		81.6	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1500		78.9	170	ug/Kg
118-74-1	Hexachlorobenzene	1500		85.0	170	ug/Kg
1912-24-9	Atrazine	1700		91.4	170	ug/Kg
87-86-5	Pentachlorophenol	3100	E	77.3	330	ug/Kg
85-01-8	Phenanthrene	1500		84.0	170	ug/Kg
120-12-7	Anthracene	1600		84.4	170	ug/Kg
86-74-8	Carbazole	1600		80.3	170	ug/Kg
84-74-2	Di-n-butylphthalate	1500		84.3	170	ug/Kg
206-44-0	Fluoranthene	1600		81.7	170	ug/Kg
129-00-0	Pyrene	1400		83.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	1500		96.8	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	710		98.6	330	ug/Kg
56-55-3	Benzo(a)anthracene	1500		80.7	170	ug/Kg
218-01-9	Chrysene	1400		79.5	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1500		91.0	170	ug/Kg
117-84-0	Di-n-octyl phthalate	1400		110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1400		81.1	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166418BS	SDG No.:	Q1242
Lab Sample ID:	PB166418BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1600		82.6	170	ug/Kg
50-32-8	Benzo(a)pyrene	1600		93.0	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1500		78.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1500		81.2	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1400		80.1	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1600		86.8	170	ug/Kg
123-91-1	1,4-Dioxane	1300		110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1600		74.7	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	139		18 - 112	92%	SPK: 150
13127-88-3	Phenol-d6	133		15 - 107	89%	SPK: 150
4165-60-0	Nitrobenzene-d5	97.1		18 - 107	97%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.9		20 - 109	99%	SPK: 100
118-79-6	2,4,6-Tribromophenol	160		10 - 116	106%	SPK: 150
1718-51-0	Terphenyl-d14	96.1		10 - 105	96%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	69400	6.793			
1146-65-2	Naphthalene-d8	275000	8.075			
15067-26-2	Acenaphthene-d10	149000	9.828			
1517-22-2	Phenanthrene-d10	260000	11.316			
1719-03-5	Chrysene-d12	178000	13.963			
1520-96-3	Perylene-d12	152000	15.427			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1000		130	230	ug/Kg
108-95-2	Phenol	880		58.6	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	900		59.2	120	ug/Kg
95-57-8	2-Chlorophenol	900		59.0	120	ug/Kg
95-48-7	2-Methylphenol	860		57.0	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	880		64.2	120	ug/Kg
98-86-2	Acetophenone	990		61.4	120	ug/Kg
65794-96-9	3+4-Methylphenols	920		56.4	230	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	900		28.5	56.5	ug/Kg
67-72-1	Hexachloroethane	860		58.7	120	ug/Kg
98-95-3	Nitrobenzene	840		64.2	120	ug/Kg
78-59-1	Isophorone	900		59.8	120	ug/Kg
88-75-5	2-Nitrophenol	900		66.8	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1100		65.9	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	880		60.6	120	ug/Kg
120-83-2	2,4-Dichlorophenol	900		53.4	120	ug/Kg
91-20-3	Naphthalene	850		58.4	120	ug/Kg
106-47-8	4-Chloroaniline	210		58.4	120	ug/Kg
87-68-3	Hexachlorobutadiene	840		58.9	120	ug/Kg
105-60-2	Caprolactam	990		61.3	230	ug/Kg
59-50-7	4-Chloro-3-methylphenol	870		54.8	120	ug/Kg
91-57-6	2-Methylnaphthalene	840		58.3	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3200	E	110	230	ug/Kg
88-06-2	2,4,6-Trichlorophenol	920		50.5	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	890		52.3	120	ug/Kg
92-52-4	1,1-Biphenyl	990		61.8	120	ug/Kg
91-58-7	2-Chloronaphthalene	850		58.9	120	ug/Kg
88-74-4	2-Nitroaniline	900		67.1	120	ug/Kg
131-11-3	Dimethylphthalate	910		57.7	120	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	940		61.1	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	860		58.8	120	ug/Kg
99-09-2	3-Nitroaniline	530		63.0	120	ug/Kg
83-32-9	Acenaphthene	980		57.3	120	ug/Kg
51-28-5	2,4-Dinitrophenol	2200	E	170	230	ug/Kg
100-02-7	4-Nitrophenol	1600		82.0	230	ug/Kg
132-64-9	Dibenzofuran	870		59.6	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	880		60.9	120	ug/Kg
84-66-2	Diethylphthalate	900		56.6	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	850		60.5	120	ug/Kg
86-73-7	Fluorene	850		60.4	120	ug/Kg
100-01-6	4-Nitroaniline	800		75.6	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1100		82.7	230	ug/Kg
86-30-6	n-Nitrosodiphenylamine	990		57.7	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	970		55.8	120	ug/Kg
118-74-1	Hexachlorobenzene	940		60.1	120	ug/Kg
1912-24-9	Atrazine	1000		64.6	120	ug/Kg
87-86-5	Pentachlorophenol	1800		54.6	230	ug/Kg
85-01-8	Phenanthrene	940		59.4	120	ug/Kg
120-12-7	Anthracene	950		59.6	120	ug/Kg
86-74-8	Carbazole	850		56.7	120	ug/Kg
84-74-2	Di-n-butylphthalate	960		59.6	120	ug/Kg
206-44-0	Fluoranthene	840		57.7	120	ug/Kg
129-00-0	Pyrene	740		58.7	120	ug/Kg
85-68-7	Butylbenzylphthalate	860		68.4	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	670		69.7	230	ug/Kg
56-55-3	Benzo(a)anthracene	860		57.0	120	ug/Kg
218-01-9	Chrysene	910		56.2	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	890		64.3	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1000		77.7	230	ug/Kg
205-99-2	Benzo(b)fluoranthene	1000		57.3	120	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	890		58.4	120	ug/Kg
50-32-8	Benzo(a)pyrene	990		65.7	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	720		55.2	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	730		57.4	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	640		56.6	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	960		61.3	120	ug/Kg
123-91-1	1,4-Dioxane	900		77.7	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	930		52.8	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	80.0		18 - 112	53%	SPK: 150
13127-88-3	Phenol-d6	78.3		15 - 107	52%	SPK: 150
4165-60-0	Nitrobenzene-d5	54.3		18 - 107	54%	SPK: 100
321-60-8	2-Fluorobiphenyl	53.2		20 - 109	53%	SPK: 100
118-79-6	2,4,6-Tribromophenol	80.6		10 - 116	54%	SPK: 150
1718-51-0	Terphenyl-d14	46.0		10 - 105	46%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	151000	6.798			
1146-65-2	Naphthalene-d8	602000	8.08			
15067-26-2	Acenaphthene-d10	314000	9.839			
1517-22-2	Phenanthrene-d10	473000	11.321			
1719-03-5	Chrysene-d12	293000	13.968			
1520-96-3	Perylene-d12	308000	15.427			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141346.D	1	01/31/25 10:20	01/31/25 21:50	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1100		130	230	ug/Kg
108-95-2	Phenol	920		58.6	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	940		59.2	120	ug/Kg
95-57-8	2-Chlorophenol	950		59.0	120	ug/Kg
95-48-7	2-Methylphenol	900		57.0	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	920		64.3	120	ug/Kg
98-86-2	Acetophenone	1100		61.4	120	ug/Kg
65794-96-9	3+4-Methylphenols	970		56.4	230	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	940		28.5	56.6	ug/Kg
67-72-1	Hexachloroethane	910		58.7	120	ug/Kg
98-95-3	Nitrobenzene	910		64.2	120	ug/Kg
78-59-1	Isophorone	960		59.8	120	ug/Kg
88-75-5	2-Nitrophenol	970		66.8	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1200		65.9	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	950		60.7	120	ug/Kg
120-83-2	2,4-Dichlorophenol	950		53.4	120	ug/Kg
91-20-3	Naphthalene	900		58.4	120	ug/Kg
106-47-8	4-Chloroaniline	240		58.4	120	ug/Kg
87-68-3	Hexachlorobutadiene	890		58.9	120	ug/Kg
105-60-2	Caprolactam	1100		61.4	230	ug/Kg
59-50-7	4-Chloro-3-methylphenol	930		54.8	120	ug/Kg
91-57-6	2-Methylnaphthalene	890		58.3	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3400	E	110	230	ug/Kg
88-06-2	2,4,6-Trichlorophenol	970		50.5	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	950		52.3	120	ug/Kg
92-52-4	1,1-Biphenyl	1000		61.8	120	ug/Kg
91-58-7	2-Chloronaphthalene	900		58.9	120	ug/Kg
88-74-4	2-Nitroaniline	950		67.2	120	ug/Kg
131-11-3	Dimethylphthalate	970		57.8	120	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141346.D	1	01/31/25 10:20	01/31/25 21:50	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	990		61.2	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	910		58.8	120	ug/Kg
99-09-2	3-Nitroaniline	550		63.1	120	ug/Kg
83-32-9	Acenaphthene	1000		57.3	120	ug/Kg
51-28-5	2,4-Dinitrophenol	2300	E	170	230	ug/Kg
100-02-7	4-Nitrophenol	1700		82.0	230	ug/Kg
132-64-9	Dibenzofuran	920		59.7	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	930		61.0	120	ug/Kg
84-66-2	Diethylphthalate	950		56.6	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	900		60.5	120	ug/Kg
86-73-7	Fluorene	900		60.5	120	ug/Kg
100-01-6	4-Nitroaniline	870		75.7	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1200		82.7	230	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1100		57.7	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1000		55.8	120	ug/Kg
118-74-1	Hexachlorobenzene	990		60.1	120	ug/Kg
1912-24-9	Atrazine	1100		64.6	120	ug/Kg
87-86-5	Pentachlorophenol	2000	E	54.7	230	ug/Kg
85-01-8	Phenanthrene	1000		59.4	120	ug/Kg
120-12-7	Anthracene	1000		59.7	120	ug/Kg
86-74-8	Carbazole	920		56.8	120	ug/Kg
84-74-2	Di-n-butylphthalate	1000		59.6	120	ug/Kg
206-44-0	Fluoranthene	920		57.8	120	ug/Kg
129-00-0	Pyrene	810		58.7	120	ug/Kg
85-68-7	Butylbenzylphthalate	930		68.4	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	750		69.7	230	ug/Kg
56-55-3	Benzo(a)anthracene	930		57.1	120	ug/Kg
218-01-9	Chrysene	980		56.2	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	970		64.3	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1100		77.8	230	ug/Kg
205-99-2	Benzo(b)fluoranthene	990		57.3	120	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141346.D	1	01/31/25 10:20	01/31/25 21:50	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1100		58.4	120	ug/Kg
50-32-8	Benzo(a)pyrene	1100		65.8	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	770		55.2	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	780		57.4	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	690		56.6	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1000		61.4	120	ug/Kg
123-91-1	1,4-Dioxane	950		77.8	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1000		52.8	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	84.0		18 - 112	56%	SPK: 150
13127-88-3	Phenol-d6	82.0		15 - 107	55%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.9		18 - 107	58%	SPK: 100
321-60-8	2-Fluorobiphenyl	55.5		20 - 109	55%	SPK: 100
118-79-6	2,4,6-Tribromophenol	84.1		10 - 116	56%	SPK: 150
1718-51-0	Terphenyl-d14	49.7		10 - 105	50%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	149000	6.798			
1146-65-2	Naphthalene-d8	588000	8.081			
15067-26-2	Acenaphthene-d10	309000	9.839			
1517-22-2	Phenanthrene-d10	457000	11.322			
1719-03-5	Chrysene-d12	288000	13.968			
1520-96-3	Perylene-d12	294000	15.421			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Jan 29 17:41:25 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141290.D 5 =BF141291.D 10 =BF141292.D 20 =BF141293.D 40 =BF141294.D 50 =BF141295.D 60 =BF141296.D 80 =BF1412
97.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------									
2)		1,4-Dioxane		0.600	0.603	0.597	0.538	0.574	0.569	0.530	0.573	5.19
3)		Pyridine		1.364	1.410	1.450	1.320	1.394	1.404	1.322	1.380	3.46
4)		n-Nitrosodimet...		0.770	0.789	0.824	0.751	0.803	0.813	0.771	0.789	3.32
5)	S	2-Fluorophenol		1.428	1.391	1.402	1.201	1.267	1.268	1.163	1.303	8.03
6)		Aniline		1.480	1.511	1.542	1.359	1.404	1.350	1.174	1.403	8.93
7)	S	Phenol-d6		1.841	1.800	1.743	1.520	1.611	1.611	1.475	1.657	8.47
8)		2-Chlorophenol		1.535	1.510	1.487	1.297	1.353	1.355	1.237	1.396	8.24
9)		Benzaldehyde		1.166	1.130	1.104	0.895	0.861	0.837	0.727	0.960	17.81
10)	C	Phenol		1.938	1.879	1.884	1.643	1.696	1.704	1.554	1.757	8.22
11)		bis(2-Chloroet...		1.478	1.413	1.426	1.232	1.299	1.329	1.253	1.347	6.93
12)		1,3-Dichlorobe...		1.697	1.668	1.648	1.429	1.499	1.474	1.362	1.540	8.49
13)	C	1,4-Dichlorobe...		1.719	1.663	1.659	1.432	1.502	1.487	1.365	1.547	8.66
14)		1,2-Dichlorobe...		1.629	1.609	1.565	1.338	1.392	1.366	1.240	1.448	10.46
15)		Benzyl Alcohol		1.138	1.201	1.216	1.082	1.137	1.125	1.028	1.133	5.72
16)		2,2'-oxybis(1-...		2.533	2.484	2.495	2.189	2.296	2.287	2.112	2.342	7.01
17)		2-Methylphenol		1.237	1.175	1.210	1.042	1.107	1.120	1.053	1.135	6.62
18)		Hexachloroethane		0.609	0.612	0.610	0.530	0.560	0.561	0.513	0.571	7.09
19)	P	n-Nitroso-di-n...	1.084	1.052	1.060	1.032	0.895	0.936	0.945	0.874	0.985	8.27
20)		3+4-Methylphenols		1.561	1.564	1.502	1.287	1.331	1.323	1.186	1.393	10.65
21)	I	Naphthalene-d8	----------ISTD----------									
22)		Acetophenone		0.547	0.523	0.517	0.436	0.449	0.443	0.412	0.475	11.06
23)	S	Nitrobenzene-d5		0.405	0.396	0.406	0.354	0.373	0.373	0.349	0.379	6.14
24)		Nitrobenzene		0.418	0.411	0.420	0.371	0.385	0.389	0.358	0.393	6.14
25)		Isophorone		0.698	0.685	0.694	0.611	0.640	0.648	0.615	0.656	5.62
26)	C	2-Nitrophenol		0.176	0.187	0.199	0.177	0.189	0.191	0.179	0.185	4.66
27)		2,4-Dimethylph...		0.244	0.239	0.249	0.224	0.235	0.238	0.223	0.236	4.12
28)		bis(2-Chloroet...		0.454	0.440	0.445	0.389	0.405	0.411	0.384	0.418	6.70
29)	C	2,4-Dichloroph...		0.307	0.300	0.312	0.271	0.284	0.286	0.262	0.289	6.39
30)		1,2,4-Trichlor...		0.372	0.354	0.354	0.304	0.318	0.316	0.292	0.330	9.11
31)		Naphthalene		1.193	1.145	1.140	0.976	1.020	1.002	0.919	1.057	9.72
32)		Benzoic acid		0.140	0.178	0.238	0.221	0.241	0.259	0.242	0.217	19.59
33)		4-Chloroaniline		0.382	0.378	0.391	0.338	0.351	0.349	0.318	0.358	7.38
34)	C	Hexachlorobuta...		0.209	0.207	0.209	0.179	0.190	0.187	0.174	0.194	7.52
35)		Caprolactam		0.097	0.095	0.102	0.089	0.094	0.096	0.089	0.094	4.89
36)	C	4-Chloro-3-met...		0.328	0.328	0.334	0.287	0.301	0.307	0.283	0.310	6.71
37)		2-Methylnaphth...		0.755	0.732	0.724	0.624	0.643	0.639	0.583	0.672	9.68
38)		1-Methylnaphth...		0.757	0.723	0.711	0.606	0.625	0.623	0.573	0.660	10.56

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.615	0.613	0.603	0.534	0.555	0.551	0.512	0.569	7.25
41)	P	Hexachlorocycl...	0.136	0.157	0.174	0.172	0.182	0.181	0.174	0.168	9.69
42)	S	2,4,6-Tribromo...	0.198	0.198	0.198	0.173	0.175	0.179	0.163	0.183	7.98
43)	C	2,4,6-Trichlor...	0.381	0.380	0.390	0.364	0.375	0.369	0.347	0.372	3.79
44)		2,4,5-Trichlor...	0.429	0.425	0.429	0.377	0.391	0.403	0.383	0.405	5.50
45)	S	2-Fluorobiphenyl	1.597	1.464	1.398	1.184	1.202	1.168	1.083	1.299	14.48
46)		1,1'-Biphenyl	1.810	1.692	1.650	1.454	1.492	1.460	1.360	1.560	10.27
47)		2-Chloronaphth...	1.396	1.310	1.290	1.122	1.159	1.156	1.077	1.216	9.59
48)		2-Nitroaniline	0.386	0.389	0.407	0.364	0.382	0.385	0.364	0.382	3.91
49)		Acenaphthylene	1.921	1.854	1.815	1.595	1.620	1.612	1.495	1.702	9.38
50)		Dimethylphthalate	1.498	1.456	1.445	1.239	1.299	1.296	1.223	1.351	8.34
51)		2,6-Dinitrotol...	0.333	0.331	0.333	0.296	0.304	0.309	0.290	0.314	5.90
52)	C	Acenaphthene	1.361	1.300	1.291	1.128	1.170	1.180	1.079	1.216	8.46
53)		3-Nitroaniline	0.321	0.330	0.341	0.303	0.293	0.298	0.264	0.307	8.44
54)	P	2,4-Dinitrophenol		0.102	0.136	0.147	0.156	0.169	0.164	0.146	16.81
55)		Dibenzofuran	1.869	1.788	1.755	1.518	1.525	1.539	1.398	1.627	10.72
56)	P	4-Nitrophenol	0.187	0.215	0.251	0.224	0.231	0.244	0.222	0.225	9.21
57)		2,4-Dinitrotol...	0.424	0.431	0.443	0.386	0.392	0.404	0.362	0.406	7.03
58)		Fluorene	1.512	1.410	1.353	1.167	1.164	1.172	1.059	1.262	12.96
59)		2,3,4,6-Tetrac...	0.325	0.343	0.341	0.304	0.305	0.324	0.291	0.319	6.11
60)		Diethylphthalate	1.470	1.417	1.412	1.225	1.238	1.260	1.146	1.310	9.32
61)		4-Chlorophenyl...	0.738	0.694	0.659	0.567	0.565	0.571	0.522	0.617	13.04
62)		4-Nitroaniline	0.297	0.312	0.330	0.290	0.294	0.311	0.281	0.302	5.45
63)		Azobenzene	1.464	1.411	1.390	1.224	1.249	1.276	1.162	1.311	8.51
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...	0.080	0.105	0.122	0.125	0.131	0.134	0.131	0.118	16.29
66)	c	n-Nitrosodiphe...	0.716	0.684	0.674	0.626	0.622	0.614	0.593	0.647	6.89
67)		4-Bromophenyl-...	0.235	0.234	0.234	0.217	0.218	0.220	0.210	0.224	4.57
68)		Hexachlorobenzene	0.257	0.250	0.248	0.229	0.229	0.232	0.217	0.238	6.07
69)		Atrazine	0.211	0.202	0.213	0.213	0.215	0.235	0.224	0.216	4.86
70)	C	Pentachlorophenol	0.112	0.136	0.146	0.143	0.146	0.149	0.141	0.139	9.08
71)		Phenanthrene	1.233	1.170	1.142	1.025	1.008	1.010	0.937	1.075	9.96
72)		Anthracene	1.179	1.146	1.120	1.009	0.999	0.996	0.924	1.053	9.00
73)		Carbazole	1.019	1.014	1.021	0.899	0.878	0.900	0.807	0.934	9.04
74)		Di-n-butylphth...	1.244	1.239	1.245	1.086	1.051	1.081	0.978	1.132	9.65
75)	C	Fluoranthene	1.195	1.202	1.196	1.013	0.963	0.982	0.880	1.062	12.57
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.882	0.480	0.210	0.730	0.906	0.724	0.556	0.641	38.34
78)		Pyrene	2.178	2.063	2.002	1.754	1.870	1.898	1.674	1.920	9.14
79)	S	Terphenyl-d14	1.543	1.411	1.370	1.183	1.238	1.230	1.103	1.297	11.68
80)		Butylbenzylpht...	0.686	0.690	0.739	0.626	0.657	0.688	0.610	0.671	6.49
81)		Benzo(a)anthra...	1.532	1.410	1.453	1.270	1.375	1.355	1.265	1.380	6.96
82)		3,3'-Dichlorob...	0.412	0.422	0.427	0.418	0.478	0.466	0.449	0.439	5.82
83)		Chrysene	1.332	1.325	1.342	1.136	1.267	1.243	1.210	1.265	5.98
84)		Bis(2-ethylhex...	0.882	0.903	0.956	0.785	0.831	0.834	0.764	0.851	7.93
85)	c	Di-n-octyl pht...	1.194	1.267	1.438	1.230	1.365	1.406	1.352	1.321	6.98

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.217	1.268	1.337	1.257	1.348	1.322	1.287	1.291	3.67
88)		Benzo(b)fluora...	1.358	1.382	1.328	1.120	1.265	1.218	1.136	1.258	8.33
89)		Benzo(k)fluora...	1.167	1.114	1.274	1.083	1.049	1.060	1.054	1.114	7.32
90)	C	Benzo(a)pyrene	1.118	1.059	1.131	1.011	1.061	1.051	1.010	1.063	4.44
91)		Dibenzo(a,h)an...	0.966	1.001	1.101	1.016	1.087	1.071	1.028	1.039	4.73
92)		Benzo(g,h,i)pe...	1.011	1.075	1.139	1.043	1.123	1.105	1.063	1.080	4.22

(#) = Out of Range

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Feb 06 16:58:59 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141472.D 5 =BF141473.D 10 =BF141474.D 20 =BF141475.D 40 =BF141476.D 50 =BF141477.D 60 =BF141478.D 80 =BF1414
79.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.511	0.519	0.523	0.517	0.502	0.521	0.501	0.513	1.73
3)		Pyridine		1.053	1.205	1.311	1.263	1.256	1.261	1.204	1.222	6.79
4)		n-Nitrosodimet...		0.737	0.774	0.820	0.818	0.835	0.846	0.833	0.809	4.83
5)	S	2-Fluorophenol		1.235	1.290	1.365	1.289	1.273	1.264	1.214	1.276	3.77
6)		Aniline		1.476	1.545	1.650	1.538	1.506	1.494	1.379	1.513	5.42
7)	S	Phenol-d6		1.619	1.629	1.704	1.613	1.599	1.585	1.538	1.612	3.13
8)		2-Chlorophenol		1.399	1.410	1.446	1.379	1.368	1.345	1.302	1.378	3.38
9)		Benzaldehyde		0.892	0.993	0.981	0.821	0.747	0.706		0.857	13.92
10)	C	Phenol		1.693	1.681	1.817	1.685	1.659	1.644	1.569	1.678	4.42
11)		bis(2-Chloroet...		1.262	1.229	1.296	1.266	1.252	1.262	1.256	1.261	1.59
12)		1,3-Dichlorobe...		1.473	1.482	1.554	1.441	1.441	1.430	1.366	1.455	3.95
13)	C	1,4-Dichlorobe...		1.546	1.538	1.571	1.471	1.465	1.439	1.379	1.487	4.59
14)		1,2-Dichlorobe...		1.393	1.439	1.473	1.374	1.351	1.345	1.285	1.380	4.55
15)		Benzyl Alcohol		1.191	1.251	1.322	1.262	1.248	1.218	1.163	1.236	4.19
16)		2,2'-oxybis(1-...		2.222	2.245	2.313	2.165	2.119	2.082	1.959	2.158	5.45
17)		2-Methylphenol		1.116	1.089	1.121	1.077	1.059	1.066	1.024	1.079	3.15
18)		Hexachloroethane		0.539	0.545	0.589	0.553	0.556	0.544	0.526	0.550	3.59
19)	P	n-Nitroso-di-n...	0.950	0.978	0.985	1.039	0.969	0.947	0.941	0.907	0.964	4.03
20)		3+4-Methylphenols		1.442	1.417	1.459	1.372	1.344	1.319	1.244	1.371	5.52
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.517	0.502	0.521	0.493	0.483	0.488	0.478	0.498	3.35
23)	S	Nitrobenzene-d5		0.380	0.379	0.396	0.385	0.378	0.381	0.384	0.383	1.58
24)		Nitrobenzene		0.370	0.371	0.383	0.374	0.369	0.375	0.376	0.374	1.29
25)		Isophorone		0.611	0.594	0.633	0.611	0.601	0.617	0.614	0.611	2.04
26)	C	2-Nitrophenol		0.171	0.175	0.190	0.193	0.190	0.193	0.191	0.186	4.91
27)		2,4-Dimethylph...		0.208	0.212	0.221	0.223	0.218	0.220	0.220	0.217	2.46
28)		bis(2-Chloroet...		0.384	0.390	0.408	0.394	0.387	0.391	0.388	0.392	2.03
29)	C	2,4-Dichloroph...		0.286	0.287	0.312	0.296	0.290	0.292	0.292	0.294	2.95
30)		1,2,4-Trichlor...		0.327	0.321	0.331	0.317	0.312	0.317	0.314	0.320	2.12
31)		Naphthalene		1.067	1.041	1.096	1.037	1.012	1.022	1.012	1.041	2.98
32)		Benzoic acid			0.186	0.217	0.229	0.233	0.243	0.246	0.226	9.70
33)		4-Chloroaniline		0.354	0.352	0.382	0.364	0.360	0.364	0.370	0.363	2.82
34)	C	Hexachlorobuta...		0.193	0.191	0.200	0.192	0.188	0.191	0.189	0.192	2.01
35)		Caprolactam		0.083	0.085	0.094	0.093	0.088	0.091	0.092	0.089	4.75
36)	C	4-Chloro-3-met...		0.310	0.324	0.342	0.329	0.324	0.325	0.324	0.325	2.91
37)		2-Methylnaphth...		0.688	0.689	0.719	0.669	0.659	0.666	0.652	0.677	3.42
38)		1-Methylnaphth...		0.680	0.657	0.691	0.656	0.637	0.640	0.631	0.656	3.40

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.582	0.588	0.600	0.584	0.560	0.574	0.562	0.579	2.50
41)	P	Hexachlorocycl...		0.138	0.180	0.204	0.205	0.214	0.214	0.192	15.36
42)	S	2,4,6-Tribromo...	0.201	0.200	0.210	0.200	0.199	0.201	0.196	0.201	2.08
43)	C	2,4,6-Trichlor...	0.364	0.365	0.389	0.377	0.373	0.378	0.372	0.374	2.28
44)		2,4,5-Trichlor...	0.385	0.407	0.430	0.410	0.394	0.409	0.401	0.405	3.51
45)	S	2-Fluorobiphenyl	1.373	1.360	1.385	1.269	1.241	1.259	1.201	1.298	5.62
46)		1,1'-Biphenyl	1.582	1.564	1.632	1.545	1.517	1.537	1.478	1.551	3.16
47)		2-Chloronaphth...	1.167	1.161	1.211	1.135	1.114	1.136	1.103	1.147	3.18
48)		2-Nitroaniline	0.371	0.371	0.394	0.390	0.382	0.401	0.385	0.385	2.92
49)		Acenaphthylene	1.739	1.736	1.791	1.696	1.660	1.689	1.626	1.705	3.21
50)		Dimethylphthalate	1.382	1.359	1.408	1.345	1.324	1.341	1.345	1.358	2.09
51)		2,6-Dinitrotol...	0.289	0.290	0.314	0.301	0.295	0.299	0.290	0.297	3.06
52)	C	Acenaphthene	1.186	1.164	1.188	1.152	1.108	1.127	1.101	1.147	3.10
53)		3-Nitroaniline	0.312	0.313	0.335	0.319	0.320	0.321	0.316	0.319	2.35
54)	P	2,4-Dinitrophenol		0.133	0.167	0.177	0.185	0.198	0.198	0.176	13.83
55)		Dibenzofuran	1.768	1.722	1.774	1.673	1.633	1.634	1.576	1.683	4.44
56)	P	4-Nitrophenol	0.190	0.216	0.247	0.249	0.249	0.257	0.251	0.237	10.43
57)		2,4-Dinitrotol...	0.383	0.403	0.414	0.398	0.390	0.396	0.383	0.395	2.83
58)		Fluorene	1.359	1.361	1.377	1.290	1.239	1.263	1.221	1.301	4.90
59)		2,3,4,6-Tetrac...	0.332	0.361	0.359	0.348	0.348	0.355	0.340	0.349	2.95
60)		Diethylphthalate	1.400	1.346	1.398	1.330	1.300	1.308	1.269	1.336	3.71
61)		4-Chlorophenyl...	0.661	0.643	0.659	0.622	0.602	0.611	0.585	0.626	4.66
62)		4-Nitroaniline	0.315	0.319	0.333	0.335	0.319	0.327	0.324	0.324	2.28
63)		Azobenzene	1.348	1.329	1.385	1.326	1.295	1.320	1.294	1.328	2.38
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.116	0.140	0.142	0.142	0.146	0.148	0.139	8.48
66)	c	n-Nitrosodiphe...	0.650	0.653	0.674	0.627	0.625	0.625	0.627	0.640	2.97
67)		4-Bromophenyl-...	0.228	0.220	0.234	0.221	0.220	0.221	0.221	0.224	2.46
68)		Hexachlorobenzene	0.229	0.234	0.241	0.227	0.224	0.228	0.228	0.230	2.46
69)		Atrazine	0.200	0.203	0.214	0.185	0.185	0.182	0.176	0.192	7.12
70)	C	Pentachlorophenol	0.116	0.131	0.151	0.154	0.158	0.159	0.160	0.147	11.68
71)		Phenanthrene	1.141	1.132	1.161	1.084	1.071	1.069	1.049	1.101	3.91
72)		Anthracene	1.168	1.126	1.158	1.082	1.084	1.071	1.057	1.107	3.99
73)		Carbazole	1.022	1.026	1.076	0.986	0.966	0.961	0.933	0.996	4.87
74)		Di-n-butylphth...	1.165	1.156	1.223	1.141	1.132	1.126	1.105	1.150	3.29
75)	C	Fluoranthene	1.251	1.239	1.243	1.151	1.129	1.091	1.065	1.167	6.63
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.474	0.487	0.334	0.528	0.432	0.351	0.481	0.441	16.58
78)		Pyrene	1.528	1.557	1.717	1.745	1.774	1.807	1.789	1.703	6.67
79)	S	Terphenyl-d14	1.129	1.104	1.211	1.198	1.209	1.234	1.208	1.185	4.07
80)		Butylbenzylpht...	0.525	0.540	0.605	0.609	0.603	0.623	0.624	0.590	6.83
81)		Benzo(a)anthra...	1.381	1.332	1.350	1.345	1.309	1.309	1.279	1.329	2.51
82)		3,3'-Dichlorob...	0.397	0.411	0.407	0.377	0.363	0.353	0.358	0.381	6.31
83)		Chrysene	1.187	1.223	1.314	1.201	1.215	1.224	1.229	1.228	3.34
84)		Bis(2-ethylhex...	0.593	0.610	0.685	0.689	0.680	0.697	0.702	0.665	6.68
85)	c	Di-n-octyl pht...	0.802	0.814	0.910	0.965	1.010	1.051	1.090	0.949	11.82

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	0.987	1.029	1.186	1.288	1.341	1.410	1.408	1.236	14.06
88)		Benzo(b)fluora...	1.286	1.407	1.398	1.336	1.350	1.356	1.268	1.343	3.88
89)		Benzo(k)fluora...	1.113	1.216	1.247	1.142	1.074	1.098	1.138	1.147	5.49
90)	C	Benzo(a)pyrene	1.085	1.074	1.115	1.080	1.069	1.094	1.089	1.087	1.41
91)		Dibenzo(a,h)an...	0.796	0.828	0.970	1.051	1.092	1.138	1.134	1.001	14.13
92)		Benzo(g,h,i)pe...	0.805	0.864	1.001	1.100	1.144	1.203	1.218	1.048	15.60

(#) = Out of Range

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: BNA_F Calibration Date/Time: 01/31/2025 17:19

Lab File ID: BF141336.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.218		-6.5	
Benzaldehyde	0.960	0.972		1.3	
Phenol-d6	1.657	1.534		-7.4	
Phenol	1.757	1.652		-6.0	20.0
bis(2-Chloroethyl)ether	1.347	1.267		-5.9	
2-Chlorophenol	1.396	1.307		-6.4	
2-Methylphenol	1.135	1.062		-6.4	
2,2-oxybis(1-Chloropropane)	2.342	2.199		-6.1	
Acetophenone	0.475	0.424		-10.7	
3+4-Methylphenols	1.393	1.318		-5.4	
n-Nitroso-di-n-propylamine	0.985	0.946	0.050	-4.0	
Nitrobenzene-d5	0.379	0.348		-8.2	
Hexachloroethane	0.571	0.536		-6.1	
Nitrobenzene	0.393	0.365		-7.1	
Isophorone	0.656	0.622		-5.2	
2-Nitrophenol	0.185	0.175		-5.4	20.0
2,4-Dimethylphenol	0.236	0.224		-5.1	
bis(2-Chloroethoxy)methane	0.418	0.386		-7.7	
2,4-Dichlorophenol	0.289	0.272		-5.9	20.0
Naphthalene	1.057	0.966		-8.6	
4-Chloroaniline	0.358	0.329		-8.1	
Hexachlorobutadiene	0.194	0.179		-7.7	20.0
Caprolactam	0.094	0.091		-3.2	
4-Chloro-3-methylphenol	0.310	0.341		10.0	20.0
2-Methylnaphthalene	0.672	0.618		-8.0	
Hexachlorocyclopentadiene	0.168	0.159	0.050	-5.4	
2,4,6-Trichlorophenol	0.372	0.365		-1.9	20.0
2-Fluorobiphenyl	1.299	1.148		-11.6	
2,4,5-Trichlorophenol	0.405	0.381		-5.9	
1,1-Biphenyl	1.560	1.427		-8.5	
2-Chloronaphthalene	1.216	1.102		-9.4	
2-Nitroaniline	0.382	0.366		-4.2	
Dimethylphthalate	1.351	1.290		-4.5	
Acenaphthylene	1.702	1.577		-7.3	
2,6-Dinitrotoluene	0.314	0.300		-4.5	
3-Nitroaniline	0.307	0.292		-4.9	
Acenaphthene	1.216	1.127		-7.3	20.0
2,4-Dinitrophenol	0.146	0.150	0.050	2.7	
4-Nitrophenol	0.225	0.300	0.050	33.3	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: BNA_F Calibration Date/Time: 01/31/2025 17:19

Lab File ID: BF141336.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.481		-9.0	
2,4-Dinitrotoluene	0.406	0.427		5.2	
Diethylphthalate	1.310	1.249		-4.7	
4-Chlorophenyl-phenylether	0.617	0.562		-8.9	
Fluorene	1.262	1.151		-8.8	
4-Nitroaniline	0.302	0.288		-4.6	
4,6-Dinitro-2-methylphenol	0.118	0.131		11.0	
n-Nitrosodiphenylamine	0.647	0.627		-3.1	20.0
2,4,6-Tribromophenol	0.183	0.177		-3.3	
4-Bromophenyl-phenylether	0.224	0.220		-1.8	
Hexachlorobenzene	0.238	0.232		-2.5	
Atrazine	0.216	0.184		-14.8	
Pentachlorophenol	0.139	0.186		33.8	20.0
Phenanthrene	1.075	1.016		-5.5	
Anthracene	1.053	0.999		-5.1	
Carbazole	0.934	0.892		-4.5	
Di-n-butylphthalate	1.132	1.116		-1.4	
Fluoranthene	1.062	1.011		-4.8	20.0
Pyrene	1.920	1.949		1.5	
Terphenyl-d14	1.297	1.177		-9.3	
Butylbenzylphthalate	0.671	0.656		-2.2	
3,3-Dichlorobenzidine	0.439	0.397		-9.6	
Benzo(a)anthracene	1.380	1.181		-14.4	
Chrysene	1.265	1.179		-6.8	
Bis(2-ethylhexyl)phthalate	0.851	0.815		-4.2	
Di-n-octyl phthalate	1.321	1.285		-2.7	20.0
Benzo(b)fluoranthene	1.258	1.168		-7.2	
Benzo(k)fluoranthene	1.114	1.042		-6.5	
Benzo(a)pyrene	1.063	0.991		-6.8	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.238		-4.1	
Dibenzo(a,h)anthracene	1.039	0.999		-3.8	
Benzo(g,h,i)perylene	1.080	1.050		-2.8	
1,2,4,5-Tetrachlorobenzene	0.569	0.515		-9.5	
1,4-Dioxane	0.573	0.545		-4.9	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.310		-2.8	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: BNA_F Calibration Date/Time: 02/05/2025 10:02

Lab File ID: BF141435.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.295		-0.6	
Benzaldehyde	0.960	0.988		2.9	
Phenol-d6	1.657	1.600		-3.4	
Phenol	1.757	1.663		-5.3	20.0
bis(2-Chloroethyl)ether	1.347	1.263		-6.2	
2-Chlorophenol	1.396	1.383		-0.9	
2-Methylphenol	1.135	1.083		-4.6	
2,2-oxybis(1-Chloropropane)	2.342	2.038		-13.0	
Acetophenone	0.475	0.493		3.8	
3+4-Methylphenols	1.393	1.395		0.1	
n-Nitroso-di-n-propylamine	0.985	0.951	0.050	-3.5	
Nitrobenzene-d5	0.379	0.397		4.5	
Hexachloroethane	0.571	0.582		1.9	
Nitrobenzene	0.393	0.403		2.5	
Isophorone	0.656	0.632		-3.7	
2-Nitrophenol	0.185	0.191		3.2	20.0
2,4-Dimethylphenol	0.236	0.229		-3.0	
bis(2-Chloroethoxy)methane	0.418	0.393		-6.0	
2,4-Dichlorophenol	0.289	0.297		2.8	20.0
Naphthalene	1.057	1.058		0.1	
4-Chloroaniline	0.358	0.335		-6.4	
Hexachlorobutadiene	0.194	0.212		9.3	20.0
Caprolactam	0.094	0.092		-2.1	
4-Chloro-3-methylphenol	0.310	0.323		4.2	20.0
2-Methylnaphthalene	0.672	0.670		-0.3	
Hexachlorocyclopentadiene	0.168	0.166	0.050	-1.2	
2,4,6-Trichlorophenol	0.372	0.385		3.5	20.0
2-Fluorobiphenyl	1.299	1.338		3.0	
2,4,5-Trichlorophenol	0.405	0.418		3.2	
1,1-Biphenyl	1.560	1.536		-1.5	
2-Chloronaphthalene	1.216	1.222		0.5	
2-Nitroaniline	0.382	0.396		3.7	
Dimethylphthalate	1.351	1.345		-0.4	
Acenaphthylene	1.702	1.696		-0.4	
2,6-Dinitrotoluene	0.314	0.319		1.6	
3-Nitroaniline	0.307	0.309		0.7	
Acenaphthene	1.216	1.232		1.3	20.0
2,4-Dinitrophenol	0.146	0.160	0.050	9.6	
4-Nitrophenol	0.225	0.235	0.050	4.4	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: BNA_F Calibration Date/Time: 02/05/2025 10:02

Lab File ID: BF141435.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.626		-0.1	
2,4-Dinitrotoluene	0.406	0.428		5.4	
Diethylphthalate	1.310	1.326		1.2	
4-Chlorophenyl-phenylether	0.617	0.644		4.4	
Fluorene	1.262	1.312		4.0	
4-Nitroaniline	0.302	0.314		4.0	
4,6-Dinitro-2-methylphenol	0.118	0.135		14.4	
n-Nitrosodiphenylamine	0.647	0.657		1.5	20.0
2,4,6-Tribromophenol	0.183	0.197		7.7	
4-Bromophenyl-phenylether	0.224	0.231		3.1	
Hexachlorobenzene	0.238	0.246		3.4	
Atrazine	0.216	0.200		-7.4	
Pentachlorophenol	0.139	0.151		8.6	20.0
Phenanthrene	1.075	1.115		3.7	
Anthracene	1.053	1.101		4.6	
Carbazole	0.934	1.005		7.6	
Di-n-butylphthalate	1.132	1.165		2.9	
Fluoranthene	1.062	1.154		8.7	20.0
Pyrene	1.920	1.874		-2.4	
Terphenyl-d14	1.297	1.290		-0.5	
Butylbenzylphthalate	0.671	0.667		-0.6	
3,3-Dichlorobenzidine	0.439	0.419		-4.6	
Benzo(a)anthracene	1.380	1.310		-5.1	
Chrysene	1.265	1.242		-1.8	
Bis(2-ethylhexyl)phthalate	0.851	0.821		-3.5	
Di-n-octyl phthalate	1.321	1.243		-5.9	20.0
Benzo(b)fluoranthene	1.258	1.327		5.5	
Benzo(k)fluoranthene	1.114	1.082		-2.9	
Benzo(a)pyrene	1.063	1.102		3.7	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.411		9.3	
Dibenzo(a,h)anthracene	1.039	1.133		9.0	
Benzo(g,h,i)perylene	1.080	1.191		10.3	
1,2,4,5-Tetrachlorobenzene	0.569	0.579		1.8	
1,4-Dioxane	0.573	0.500		-12.7	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.335		5.0	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: BNA_F Calibration Date/Time: 02/07/2025 14:33

Lab File ID: BF141506.D Init. Calib. Date(s): 02/06/2025 02/06/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:07 14:14

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.276	1.294		1.4	
Benzaldehyde	0.857	0.844		-1.5	
Phenol-d6	1.612	1.599		-0.8	
Phenol	1.678	1.676		-0.1	20.0
bis(2-Chloroethyl)ether	1.261	1.237		-1.9	
2-Chlorophenol	1.378	1.383		0.4	
2-Methylphenol	1.079	1.064		-1.4	
2,2-oxybis(1-Chloropropane)	2.158	2.121		-1.7	
Acetophenone	0.498	0.489		-1.8	
3+4-Methylphenols	1.371	1.329		-3.1	
n-Nitroso-di-n-propylamine	0.964	0.978	0.050	1.5	
Nitrobenzene-d5	0.383	0.384		0.3	
Hexachloroethane	0.550	0.545		-0.9	
Nitrobenzene	0.374	0.372		-0.5	
Isophorone	0.611	0.607		-0.7	
2-Nitrophenol	0.186	0.191		2.7	20.0
2,4-Dimethylphenol	0.217	0.219		0.9	
bis(2-Chloroethoxy)methane	0.392	0.396		1.0	
2,4-Dichlorophenol	0.294	0.296		0.7	20.0
Naphthalene	1.041	1.040		-0.1	
4-Chloroaniline	0.363	0.327		-9.9	
Hexachlorobutadiene	0.192	0.191		-0.5	20.0
Caprolactam	0.089	0.093		4.5	
4-Chloro-3-methylphenol	0.325	0.326		0.3	20.0
2-Methylnaphthalene	0.677	0.668		-1.3	
Hexachlorocyclopentadiene	0.192	0.193	0.050	0.5	
2,4,6-Trichlorophenol	0.374	0.368		-1.6	20.0
2-Fluorobiphenyl	1.298	1.268		-2.3	
2,4,5-Trichlorophenol	0.405	0.399		-1.5	
1,1-Biphenyl	1.551	1.528		-1.5	
2-Chloronaphthalene	1.147	1.132		-1.3	
2-Nitroaniline	0.385	0.385		0.0	
Dimethylphthalate	1.358	1.338		-1.5	
Acenaphthylene	1.705	1.697		-0.5	
2,6-Dinitrotoluene	0.297	0.295		-0.7	
3-Nitroaniline	0.319	0.315		-1.3	
Acenaphthene	1.147	1.116		-2.7	20.0
2,4-Dinitrophenol	0.176	0.169	0.050	-4.0	
4-Nitrophenol	0.237	0.240	0.050	1.3	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: BNA_F Calibration Date/Time: 02/07/2025 14:33

Lab File ID: BF141506.D Init. Calib. Date(s): 02/06/2025 02/06/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:07 14:14

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.683	1.655		-1.7	
2,4-Dinitrotoluene	0.395	0.400		1.3	
Diethylphthalate	1.336	1.313		-1.7	
4-Chlorophenyl-phenylether	0.626	0.616		-1.6	
Fluorene	1.301	1.278		-1.8	
4-Nitroaniline	0.324	0.326		0.6	
4,6-Dinitro-2-methylphenol	0.139	0.139		0.0	
n-Nitrosodiphenylamine	0.640	0.631		-1.4	20.0
2,4,6-Tribromophenol	0.201	0.200		-0.5	
4-Bromophenyl-phenylether	0.224	0.217		-3.1	
Hexachlorobenzene	0.230	0.229		-0.4	
Atrazine	0.192	0.182		-5.2	
Pentachlorophenol	0.147	0.147		0.0	20.0
Phenanthrene	1.101	1.082		-1.7	
Anthracene	1.107	1.095		-1.1	
Carbazole	0.996	1.004		0.8	
Di-n-butylphthalate	1.150	1.152		0.2	
Fluoranthene	1.167	1.168		0.1	20.0
Pyrene	1.703	1.702		-0.1	
Terphenyl-d14	1.185	1.171		-1.2	
Butylbenzylphthalate	0.590	0.640		8.5	
3,3-Dichlorobenzidine	0.381	0.385		1.0	
Benzo(a)anthracene	1.329	1.316		-1.0	
Chrysene	1.228	1.167		-5.0	
Bis(2-ethylhexyl)phthalate	0.665	0.759		14.1	
Di-n-octyl phthalate	0.949	1.017		7.2	20.0
Benzo(b)fluoranthene	1.343	1.426		6.2	
Benzo(k)fluoranthene	1.147	1.070		-6.7	
Benzo(a)pyrene	1.087	1.090		0.3	20.0
Indeno(1,2,3-cd)pyrene	1.236	1.245		0.7	
Dibenzo(a,h)anthracene	1.001	1.011		1.0	
Benzo(g,h,i)perylene	1.048	1.028		-1.9	
1,2,4,5-Tetrachlorobenzene	0.579	0.571		-1.4	
1,4-Dioxane	0.513	0.512		-0.2	20.0
2,3,4,6-Tetrachlorophenol	0.349	0.346		-0.9	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP BNA	8270E		02/03/25	02/04/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								
				0.000				
			Total Svoc :			**0.00**		
			Total Concentration:			**0.00**		

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PB166423TB	SDG No.:	Q1242
Lab Sample ID:	PB166423TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141401.D	1	02/03/25 08:36	02/04/25 12:02	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	137		10 - 139	92%	SPK: 150
13127-88-3	Phenol-d6	134		10 - 134	89%	SPK: 150
4165-60-0	Nitrobenzene-d5	95.6		49 - 133	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	95.3		52 - 132	95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	149		44 - 137	100%	SPK: 150
1718-51-0	Terphenyl-d14	84.4		48 - 125	84%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	79600	6.787			
1146-65-2	Naphthalene-d8	321000	8.069			
15067-26-2	Acenaphthene-d10	179000	9.828			
1517-22-2	Phenanthrene-d10	312000	11.31			
1719-03-5	Chrysene-d12	245000	13.957			
1520-96-3	Perylene-d12	193000	15.41			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PB166423TB	SDG No.:	Q1242
Lab Sample ID:	PB166423TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141401.D	1	02/03/25 08:36	02/04/25 12:02	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-04	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141419.D	1	02/03/25 08:36	02/04/25 20:00	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	120		10 - 139	80%	SPK: 150
13127-88-3	Phenol-d6	107		10 - 134	71%	SPK: 150
4165-60-0	Nitrobenzene-d5	94.8		49 - 133	95%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.0		52 - 132	94%	SPK: 100
118-79-6	2,4,6-Tribromophenol	157		44 - 137	105%	SPK: 150
1718-51-0	Terphenyl-d14	75.8		48 - 125	76%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	81500	6.787			
1146-65-2	Naphthalene-d8	321000	8.069			
15067-26-2	Acenaphthene-d10	180000	9.822			
1517-22-2	Phenanthrene-d10	323000	11.31			
1719-03-5	Chrysene-d12	287000	13.951			
1520-96-3	Perylene-d12	237000	15.41			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-04	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141419.D	1	02/03/25 08:36	02/04/25 20:00	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB166423TB	PB166423TB	2-Fluorophenol	150	137	92		10	139
		Phenol-d6	150	134	89		10	134
		Nitrobenzene-d5	100	95.6	96		49	133
		2-Fluorobiphenyl	100	95.3	95		52	132
		2,4,6-Tribromophenol	150	149	100		44	137
		Terphenyl-d14	100	84.4	84		48	125
PB166483BL	PB166483BL	2-Fluorophenol	150	142	95		10	139
		Phenol-d6	150	136	91		10	134
		Nitrobenzene-d5	100	96.4	96		49	133
		2-Fluorobiphenyl	100	98.2	98		52	132
		2,4,6-Tribromophenol	150	150	100		44	137
		Terphenyl-d14	100	85.6	86		48	125
PB166483BS	PB166483BS	2-Fluorophenol	150	145	97		10	139
		Phenol-d6	150	136	91		10	134
		Nitrobenzene-d5	100	100	100		49	133
		2-Fluorobiphenyl	100	100	100		52	132
		2,4,6-Tribromophenol	150	160	107		44	137
		Terphenyl-d14	100	91.8	92		48	125
Q1239-02MS	286MS	2-Fluorophenol	150	133	89		10	139
		Phenol-d6	150	122	81		10	134
		Nitrobenzene-d5	100	102	102		49	133
		2-Fluorobiphenyl	100	102	102		52	132
		2,4,6-Tribromophenol	150	174	116		44	137
		Terphenyl-d14	100	88.5	89		48	125
Q1239-02MSD	286MSD	2-Fluorophenol	150	140	94		10	139
		Phenol-d6	150	129	86		10	134
		Nitrobenzene-d5	100	107	107		49	133
		2-Fluorobiphenyl	100	105	105		52	132
		2,4,6-Tribromophenol	150	176	118		44	137
		Terphenyl-d14	100	89.1	89		48	125
Q1242-04	JPP-6.2-013025	2-Fluorophenol	150	120	80		10	139
		Phenol-d6	150	107	71		10	134
		Nitrobenzene-d5	100	94.8	95		49	133
		2-Fluorobiphenyl	100	94.0	94		52	132
		2,4,6-Tribromophenol	150	157	105		44	137
		Terphenyl-d14	100	75.8	76		48	125

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1239-02MS		**Client Sample ID: 286MS**						**DataFile: BF141413.D**			
Pyridine	500	0	300	ug/L	60				10	109	
1,4-Dichlorobenzene	500	0	450	ug/L	90				55	125	
2-Methylphenol	500	0	450	ug/L	90				37	126	
3+4-Methylphenols	500	0	470	ug/L	94				31	127	
Hexachloroethane	500	0	470	ug/L	94				49	110	
Nitrobenzene	500	0	460	ug/L	92				62	112	
Hexachlorobutadiene	500	0	490	ug/L	98				52	125	
2,4,6-Trichlorophenol	500	0	480	ug/L	96				78	112	
2,4,5-Trichlorophenol	500	0	490	ug/L	98				71	111	
2,4-Dinitrotoluene	500	0	510	ug/L	102				50	142	
Hexachlorobenzene	500	0	480	ug/L	96				72	115	
Pentachlorophenol	1000	0	1100	ug/L	110				25	139	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1239-02MSD		**Client Sample ID: 286MSD**						**DataFile: BF141414.D**			
Pyridine	500	0	330	ug/L	66		10		10	109	20
1,4-Dichlorobenzene	500	0	480	ug/L	96		6		55	125	20
2-Methylphenol	500	0	480	ug/L	96		6		37	126	20
3+4-Methylphenols	500	0	500	ug/L	100		6		31	127	20
Hexachloroethane	500	0	500	ug/L	100		6		49	110	20
Nitrobenzene	500	0	470	ug/L	94		2		62	112	20
Hexachlorobutadiene	500	0	500	ug/L	100		2		52	125	20
2,4,6-Trichlorophenol	500	0	500	ug/L	100		4		78	112	20
2,4,5-Trichlorophenol	500	0	510	ug/L	102		4		71	111	20
2,4-Dinitrotoluene	500	0	540	ug/L	108		6		50	142	20
Hexachlorobenzene	500	0	500	ug/L	100		4		72	115	20
Pentachlorophenol	1000	0	1200	ug/L	120		9		25	139	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141400.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166483BS	Pyridine	50	39.3	ug/L	79				29	97	
	1,4-Dichlorobenzene	50	44.7	ug/L	89				76	103	
	2-Methylphenol	50	43.6	ug/L	87				69	109	
	3+4-Methylphenols	50	46.4	ug/L	93				67	106	
	Hexachloroethane	50	45.0	ug/L	90				76	118	
	Nitrobenzene	50	43.8	ug/L	88				58	106	
	Hexachlorobutadiene	50	46.6	ug/L	93				69	101	
	2,4,6-Trichlorophenol	50	47.5	ug/L	95				61	110	
	2,4,5-Trichlorophenol	50	45.8	ug/L	92				70	106	
	2,4-Dinitrotoluene	50	47.5	ug/L	95				60	115	
	Hexachlorobenzene	50	47.0	ug/L	94				73	106	
	Pentachlorophenol	100	110	ug/L	110				47	114	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166483BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141399.D Lab Sample ID: PB166483BL

Instrument ID: BNA_F Date Extracted: 02/03/2025

Matrix: (soil/water) water Date Analyzed: 02/04/2025

Level: (low/med) LOW Time Analyzed: 11:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166483BS	PB166483BS	BF141400.D	02/04/2025
286MS	Q1239-02MS	BF141413.D	02/04/2025
286MSD	Q1239-02MSD	BF141414.D	02/04/2025
JPP-6.2-013025	Q1242-04	BF141419.D	02/04/2025
PB166423TB	PB166423TB	BF141401.D	02/04/2025

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141289.D DFTPP Injection Date: 01/29/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.1
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	47.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	26.5
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	13.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.2 (19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141290.D	01/29/2025	10:30
SSTDICC005	SSTDICC005	BF141291.D	01/29/2025	10:56
SSTDICC010	SSTDICC010	BF141292.D	01/29/2025	11:49
SSTDICC020	SSTDICC020	BF141293.D	01/29/2025	15:17
SSTDICCC040	SSTDICCC040	BF141294.D	01/29/2025	15:45
SSTDICC050	SSTDICC050	BF141295.D	01/29/2025	16:11
SSTDICC060	SSTDICC060	BF141296.D	01/29/2025	16:38
SSTDICC080	SSTDICC080	BF141297.D	01/29/2025	17:05

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141397.D DFTPP Injection Date: 02/04/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:16

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	43.3
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	38.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	49.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	26.5
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	12.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.4 (19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141398.D	02/04/2025	10:42
PB166483BL	PB166483BL	BF141399.D	02/04/2025	11:08
PB166483BS	PB166483BS	BF141400.D	02/04/2025	11:35
PB166423TB	PB166423TB	BF141401.D	02/04/2025	12:02

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: BF141409.D DFTPP Injection Date: 02/04/2025

Instrument ID: BNA_F DFTPP Injection Time: 15:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.7
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	12.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.1 (18.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141410.D	02/04/2025	15:58
286MS	Q1239-02MS	BF141413.D	02/04/2025	17:22
286MSD	Q1239-02MSD	BF141414.D	02/04/2025	17:49
JPP-6.2-013025	Q1242-04	BF141419.D	02/04/2025	20:00

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141398.D Time Analyzed: 10:42

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	87552	6.793	331835	8.08	180473	9.83
	UPPER LIMIT	175104	7.293	663670	8.575	360946	10.328
	LOWER LIMIT	43776	6.293	165918	7.575	90236.5	9.328
	EPA SAMPLE NO.						
01	PB166483BL	74401	6.79	304159	8.07	164089	9.83
02	PB166483BS	76563	6.79	300075	8.08	160616	9.83
03	PB166423TB	79603	6.79	321231	8.07	179300	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141398.D Time Analyzed: 10:42

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	318826	11.316	235294	13.963	201713	15.421
	UPPER LIMIT	637652	11.816	470588	14.463	403426	15.921
	LOWER LIMIT	159413	10.816	117647	13.463	100857	14.921
	EPA SAMPLE NO.						
01	PB166483BL	292057	11.32	229065	13.96	190566	15.42
02	PB166483BS	270383	11.32	215739	13.96	184626	15.42
03	PB166423TB	311828	11.31	245488	13.96	193327	15.41

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141410.D Time Analyzed: 15:58

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	89972	6.792	349697	8.08	187729	9.83
	UPPER LIMIT	179944	7.292	699394	8.575	375458	10.328
	LOWER LIMIT	44986	6.292	174849	7.575	93864.5	9.328
	EPA SAMPLE NO.						
01	286MS	71735	6.79	282983	8.08	159062	9.83
02	286MSD	70255	6.79	281307	8.08	157470	9.83
03	JPP-6.2-013025	81543	6.79	321007	8.07	180364	9.82

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141410.D Time Analyzed: 15:58

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	325046	11.316	235785	13.963	203742	15.421
	UPPER LIMIT	650092	11.816	471570	14.463	407484	15.921
	LOWER LIMIT	162523	10.816	117893	13.463	101871	14.921
	EPA SAMPLE NO.						
01	286MS	284462	11.32	237860	13.96	195020	15.43
02	286MSD	281416	11.32	237517	13.96	188623	15.43
03	JPP-6.2-013025	322847	11.31	286651	13.95	237306	15.41

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166483BL	SDG No.:	Q1242
Lab Sample ID:	PB166483BL	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141399.D	1	02/03/25 08:36	02/04/25 11:08	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	5.00	U	1.60	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	5.00	U	0.84	5.00	ug/L
95-48-7	2-Methylphenol	5.00	U	1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	10.0	U	1.20	10.0	ug/L
67-72-1	Hexachloroethane	5.00	U	1.00	5.00	ug/L
98-95-3	Nitrobenzene	5.00	U	1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	5.00	U	1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	5.00	U	0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	5.00	U	1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	5.00	U	1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	5.00	U	1.10	5.00	ug/L
87-86-5	Pentachlorophenol	10.0	U	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	142		10 - 139	95%	SPK: 150
13127-88-3	Phenol-d6	136		10 - 134	91%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.4		49 - 133	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.2		52 - 132	98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	150		44 - 137	100%	SPK: 150
1718-51-0	Terphenyl-d14	85.6		48 - 125	86%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	74400	6.786			
1146-65-2	Naphthalene-d8	304000	8.069			
15067-26-2	Acenaphthene-d10	164000	9.827			
1517-22-2	Phenanthrene-d10	292000	11.316			
1719-03-5	Chrysene-d12	229000	13.957			
1520-96-3	Perylene-d12	191000	15.415			

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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	
Client Sample ID:	PB166483BL			SDG No.:	Q1242
Lab Sample ID:	PB166483BL			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141399.D	1	02/03/25 08:36	02/04/25 11:08	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166483BS	SDG No.:	Q1242
Lab Sample ID:	PB166483BS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141400.D	1	02/03/25 08:36	02/04/25 11:35	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	39.3		1.60	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	44.7		0.84	5.00	ug/L
95-48-7	2-Methylphenol	43.6		1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	46.4		1.20	10.0	ug/L
67-72-1	Hexachloroethane	45.0		1.00	5.00	ug/L
98-95-3	Nitrobenzene	43.8		1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	46.6		1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	47.5		0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	45.8		1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	47.5		1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	47.0		1.10	5.00	ug/L
87-86-5	Pentachlorophenol	110	E	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	145		10 - 139	97%	SPK: 150
13127-88-3	Phenol-d6	136		10 - 134	91%	SPK: 150
4165-60-0	Nitrobenzene-d5	100		49 - 133	100%	SPK: 100
321-60-8	2-Fluorobiphenyl	100		52 - 132	100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	160		44 - 137	107%	SPK: 150
1718-51-0	Terphenyl-d14	91.8		48 - 125	92%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	76600	6.787			
1146-65-2	Naphthalene-d8	300000	8.075			
15067-26-2	Acenaphthene-d10	161000	9.828			
1517-22-2	Phenanthrene-d10	270000	11.316			
1719-03-5	Chrysene-d12	216000	13.963			
1520-96-3	Perylene-d12	185000	15.415			

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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	
Client Sample ID:	PB166483BS			SDG No.:	Q1242
Lab Sample ID:	PB166483BS			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141400.D	1	02/03/25 08:36	02/04/25 11:35	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	286MS	SDG No.:	Q1242
Lab Sample ID:	Q1239-02MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141413.D	1	02/03/25 08:36	02/04/25 17:22	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	300		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	450		8.40	50.0	ug/L
95-48-7	2-Methylphenol	450		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	470		11.5	100	ug/L
67-72-1	Hexachloroethane	470		10.1	50.0	ug/L
98-95-3	Nitrobenzene	460		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	490		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	480		8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	490		10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	510		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	480		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	1100	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	133		10 - 139	89%	SPK: 150
13127-88-3	Phenol-d6	122		10 - 134	81%	SPK: 150
4165-60-0	Nitrobenzene-d5	102		49 - 133	102%	SPK: 100
321-60-8	2-Fluorobiphenyl	102		52 - 132	102%	SPK: 100
118-79-6	2,4,6-Tribromophenol	174		44 - 137	116%	SPK: 150
1718-51-0	Terphenyl-d14	88.5		48 - 125	89%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	71700	6.792			
1146-65-2	Naphthalene-d8	283000	8.075			
15067-26-2	Acenaphthene-d10	159000	9.828			
1517-22-2	Phenanthrene-d10	284000	11.316			
1719-03-5	Chrysene-d12	238000	13.963			
1520-96-3	Perylene-d12	195000	15.427			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	286MS	SDG No.:	Q1242
Lab Sample ID:	Q1239-02MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141413.D	1	02/03/25 08:36	02/04/25 17:22	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	286MSD	SDG No.:	Q1242
Lab Sample ID:	Q1239-02MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141414.D	1	02/03/25 08:36	02/04/25 17:49	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	330		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	480		8.40	50.0	ug/L
95-48-7	2-Methylphenol	480		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	500		11.5	100	ug/L
67-72-1	Hexachloroethane	500		10.1	50.0	ug/L
98-95-3	Nitrobenzene	470		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	500		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	500		8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	510		10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	540		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	500		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	1200	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	140		10 - 139	94%	SPK: 150
13127-88-3	Phenol-d6	129		10 - 134	86%	SPK: 150
4165-60-0	Nitrobenzene-d5	107		49 - 133	107%	SPK: 100
321-60-8	2-Fluorobiphenyl	105		52 - 132	105%	SPK: 100
118-79-6	2,4,6-Tribromophenol	176		44 - 137	118%	SPK: 150
1718-51-0	Terphenyl-d14	89.1		48 - 125	89%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	70300	6.793			
1146-65-2	Naphthalene-d8	281000	8.075			
15067-26-2	Acenaphthene-d10	157000	9.828			
1517-22-2	Phenanthrene-d10	281000	11.316			
1719-03-5	Chrysene-d12	238000	13.963			
1520-96-3	Perylene-d12	189000	15.427			

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	286MSD	SDG No.:	Q1242
Lab Sample ID:	Q1239-02MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141414.D	1	02/03/25 08:36	02/04/25 17:49	PB166483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Jan 29 17:41:25 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141290.D 5 =BF141291.D 10 =BF141292.D 20 =BF141293.D 40 =BF141294.D 50 =BF141295.D 60 =BF141296.D 80 =BF1412
97.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------									
2)		1,4-Dioxane		0.600	0.603	0.597	0.538	0.574	0.569	0.530	0.573	5.19
3)		Pyridine		1.364	1.410	1.450	1.320	1.394	1.404	1.322	1.380	3.46
4)		n-Nitrosodimet...		0.770	0.789	0.824	0.751	0.803	0.813	0.771	0.789	3.32
5)	S	2-Fluorophenol		1.428	1.391	1.402	1.201	1.267	1.268	1.163	1.303	8.03
6)		Aniline		1.480	1.511	1.542	1.359	1.404	1.350	1.174	1.403	8.93
7)	S	Phenol-d6		1.841	1.800	1.743	1.520	1.611	1.611	1.475	1.657	8.47
8)		2-Chlorophenol		1.535	1.510	1.487	1.297	1.353	1.355	1.237	1.396	8.24
9)		Benzaldehyde		1.166	1.130	1.104	0.895	0.861	0.837	0.727	0.960	17.81
10)	C	Phenol		1.938	1.879	1.884	1.643	1.696	1.704	1.554	1.757	8.22
11)		bis(2-Chloroet...		1.478	1.413	1.426	1.232	1.299	1.329	1.253	1.347	6.93
12)		1,3-Dichlorobe...		1.697	1.668	1.648	1.429	1.499	1.474	1.362	1.540	8.49
13)	C	1,4-Dichlorobe...		1.719	1.663	1.659	1.432	1.502	1.487	1.365	1.547	8.66
14)		1,2-Dichlorobe...		1.629	1.609	1.565	1.338	1.392	1.366	1.240	1.448	10.46
15)		Benzyl Alcohol		1.138	1.201	1.216	1.082	1.137	1.125	1.028	1.133	5.72
16)		2,2'-oxybis(1-...		2.533	2.484	2.495	2.189	2.296	2.287	2.112	2.342	7.01
17)		2-Methylphenol		1.237	1.175	1.210	1.042	1.107	1.120	1.053	1.135	6.62
18)		Hexachloroethane		0.609	0.612	0.610	0.530	0.560	0.561	0.513	0.571	7.09
19)	P	n-Nitroso-di-n...	1.084	1.052	1.060	1.032	0.895	0.936	0.945	0.874	0.985	8.27
20)		3+4-Methylphenols		1.561	1.564	1.502	1.287	1.331	1.323	1.186	1.393	10.65
21)	I	Naphthalene-d8	----------ISTD----------									
22)		Acetophenone		0.547	0.523	0.517	0.436	0.449	0.443	0.412	0.475	11.06
23)	S	Nitrobenzene-d5		0.405	0.396	0.406	0.354	0.373	0.373	0.349	0.379	6.14
24)		Nitrobenzene		0.418	0.411	0.420	0.371	0.385	0.389	0.358	0.393	6.14
25)		Isophorone		0.698	0.685	0.694	0.611	0.640	0.648	0.615	0.656	5.62
26)	C	2-Nitrophenol		0.176	0.187	0.199	0.177	0.189	0.191	0.179	0.185	4.66
27)		2,4-Dimethylph...		0.244	0.239	0.249	0.224	0.235	0.238	0.223	0.236	4.12
28)		bis(2-Chloroet...		0.454	0.440	0.445	0.389	0.405	0.411	0.384	0.418	6.70
29)	C	2,4-Dichloroph...		0.307	0.300	0.312	0.271	0.284	0.286	0.262	0.289	6.39
30)		1,2,4-Trichlor...		0.372	0.354	0.354	0.304	0.318	0.316	0.292	0.330	9.11
31)		Naphthalene		1.193	1.145	1.140	0.976	1.020	1.002	0.919	1.057	9.72
32)		Benzoic acid		0.140	0.178	0.238	0.221	0.241	0.259	0.242	0.217	19.59
33)		4-Chloroaniline		0.382	0.378	0.391	0.338	0.351	0.349	0.318	0.358	7.38
34)	C	Hexachlorobuta...		0.209	0.207	0.209	0.179	0.190	0.187	0.174	0.194	7.52
35)		Caprolactam		0.097	0.095	0.102	0.089	0.094	0.096	0.089	0.094	4.89
36)	C	4-Chloro-3-met...		0.328	0.328	0.334	0.287	0.301	0.307	0.283	0.310	6.71
37)		2-Methylnaphth...		0.755	0.732	0.724	0.624	0.643	0.639	0.583	0.672	9.68
38)		1-Methylnaphth...		0.757	0.723	0.711	0.606	0.625	0.623	0.573	0.660	10.56

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.615	0.613	0.603	0.534	0.555	0.551	0.512	0.569	7.25
41)	P	Hexachlorocycl...	0.136	0.157	0.174	0.172	0.182	0.181	0.174	0.168	9.69
42)	S	2,4,6-Tribromo...	0.198	0.198	0.198	0.173	0.175	0.179	0.163	0.183	7.98
43)	C	2,4,6-Trichlor...	0.381	0.380	0.390	0.364	0.375	0.369	0.347	0.372	3.79
44)		2,4,5-Trichlor...	0.429	0.425	0.429	0.377	0.391	0.403	0.383	0.405	5.50
45)	S	2-Fluorobiphenyl	1.597	1.464	1.398	1.184	1.202	1.168	1.083	1.299	14.48
46)		1,1'-Biphenyl	1.810	1.692	1.650	1.454	1.492	1.460	1.360	1.560	10.27
47)		2-Chloronaphth...	1.396	1.310	1.290	1.122	1.159	1.156	1.077	1.216	9.59
48)		2-Nitroaniline	0.386	0.389	0.407	0.364	0.382	0.385	0.364	0.382	3.91
49)		Acenaphthylene	1.921	1.854	1.815	1.595	1.620	1.612	1.495	1.702	9.38
50)		Dimethylphthalate	1.498	1.456	1.445	1.239	1.299	1.296	1.223	1.351	8.34
51)		2,6-Dinitrotol...	0.333	0.331	0.333	0.296	0.304	0.309	0.290	0.314	5.90
52)	C	Acenaphthene	1.361	1.300	1.291	1.128	1.170	1.180	1.079	1.216	8.46
53)		3-Nitroaniline	0.321	0.330	0.341	0.303	0.293	0.298	0.264	0.307	8.44
54)	P	2,4-Dinitrophenol		0.102	0.136	0.147	0.156	0.169	0.164	0.146	16.81
55)		Dibenzofuran	1.869	1.788	1.755	1.518	1.525	1.539	1.398	1.627	10.72
56)	P	4-Nitrophenol	0.187	0.215	0.251	0.224	0.231	0.244	0.222	0.225	9.21
57)		2,4-Dinitrotol...	0.424	0.431	0.443	0.386	0.392	0.404	0.362	0.406	7.03
58)		Fluorene	1.512	1.410	1.353	1.167	1.164	1.172	1.059	1.262	12.96
59)		2,3,4,6-Tetrac...	0.325	0.343	0.341	0.304	0.305	0.324	0.291	0.319	6.11
60)		Diethylphthalate	1.470	1.417	1.412	1.225	1.238	1.260	1.146	1.310	9.32
61)		4-Chlorophenyl...	0.738	0.694	0.659	0.567	0.565	0.571	0.522	0.617	13.04
62)		4-Nitroaniline	0.297	0.312	0.330	0.290	0.294	0.311	0.281	0.302	5.45
63)		Azobenzene	1.464	1.411	1.390	1.224	1.249	1.276	1.162	1.311	8.51
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...	0.080	0.105	0.122	0.125	0.131	0.134	0.131	0.118	16.29
66)	c	n-Nitrosodiphe...	0.716	0.684	0.674	0.626	0.622	0.614	0.593	0.647	6.89
67)		4-Bromophenyl-...	0.235	0.234	0.234	0.217	0.218	0.220	0.210	0.224	4.57
68)		Hexachlorobenzene	0.257	0.250	0.248	0.229	0.229	0.232	0.217	0.238	6.07
69)		Atrazine	0.211	0.202	0.213	0.213	0.215	0.235	0.224	0.216	4.86
70)	C	Pentachlorophenol	0.112	0.136	0.146	0.143	0.146	0.149	0.141	0.139	9.08
71)		Phenanthrene	1.233	1.170	1.142	1.025	1.008	1.010	0.937	1.075	9.96
72)		Anthracene	1.179	1.146	1.120	1.009	0.999	0.996	0.924	1.053	9.00
73)		Carbazole	1.019	1.014	1.021	0.899	0.878	0.900	0.807	0.934	9.04
74)		Di-n-butylphth...	1.244	1.239	1.245	1.086	1.051	1.081	0.978	1.132	9.65
75)	C	Fluoranthene	1.195	1.202	1.196	1.013	0.963	0.982	0.880	1.062	12.57
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.882	0.480	0.210	0.730	0.906	0.724	0.556	0.641	38.34
78)		Pyrene	2.178	2.063	2.002	1.754	1.870	1.898	1.674	1.920	9.14
79)	S	Terphenyl-d14	1.543	1.411	1.370	1.183	1.238	1.230	1.103	1.297	11.68
80)		Butylbenzylpht...	0.686	0.690	0.739	0.626	0.657	0.688	0.610	0.671	6.49
81)		Benzo(a)anthra...	1.532	1.410	1.453	1.270	1.375	1.355	1.265	1.380	6.96
82)		3,3'-Dichlorob...	0.412	0.422	0.427	0.418	0.478	0.466	0.449	0.439	5.82
83)		Chrysene	1.332	1.325	1.342	1.136	1.267	1.243	1.210	1.265	5.98
84)		Bis(2-ethylhex...	0.882	0.903	0.956	0.785	0.831	0.834	0.764	0.851	7.93
85)	c	Di-n-octyl pht...	1.194	1.267	1.438	1.230	1.365	1.406	1.352	1.321	6.98

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.217	1.268	1.337	1.257	1.348	1.322	1.287	1.291	3.67
88)		Benzo(b)fluora...	1.358	1.382	1.328	1.120	1.265	1.218	1.136	1.258	8.33
89)		Benzo(k)fluora...	1.167	1.114	1.274	1.083	1.049	1.060	1.054	1.114	7.32
90)	C	Benzo(a)pyrene	1.118	1.059	1.131	1.011	1.061	1.051	1.010	1.063	4.44
91)		Dibenzo(a,h)an...	0.966	1.001	1.101	1.016	1.087	1.071	1.028	1.039	4.73
92)		Benzo(g,h,i)pe...	1.011	1.075	1.139	1.043	1.123	1.105	1.063	1.080	4.22

(#) = Out of Range

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: BNA_F Calibration Date/Time: 02/04/2025 10:42

Lab File ID: BF141398.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.270		-8.0	
2-Fluorophenol	1.303	1.302		-0.1	
Phenol-d6	1.657	1.560		-5.9	
1,4-Dichlorobenzene	1.547	1.539		-0.5	20.0
2-Methylphenol	1.135	1.074		-5.4	
3+4-Methylphenols	1.393	1.375		-1.3	
Nitrobenzene-d5	0.379	0.391		3.2	
Hexachloroethane	0.571	0.583		2.1	
Nitrobenzene	0.393	0.398		1.3	
Hexachlorobutadiene	0.194	0.208		7.2	20.0
2,4,6-Trichlorophenol	0.372	0.382		2.7	20.0
2-Fluorobiphenyl	1.299	1.328		2.2	
2,4,5-Trichlorophenol	0.405	0.421		4.0	
2,4-Dinitrotoluene	0.406	0.441		8.6	
2,4,6-Tribromophenol	0.183	0.202		10.4	
Hexachlorobenzene	0.238	0.243		2.1	
Pentachlorophenol	0.139	0.161		15.8	20.0
Terphenyl-d14	1.297	1.200		-7.5	

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: BNA_F Calibration Date/Time: 02/04/2025 15:58

Lab File ID: BF141410.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.264		-8.4	
2-Fluorophenol	1.303	1.284		-1.5	
Phenol-d6	1.657	1.572		-5.1	
1,4-Dichlorobenzene	1.547	1.553		0.4	20.0
2-Methylphenol	1.135	1.080		-4.8	
3+4-Methylphenols	1.393	1.396		0.2	
Nitrobenzene-d5	0.379	0.388		2.4	
Hexachloroethane	0.571	0.577		1.1	
Nitrobenzene	0.393	0.393		0.0	
Hexachlorobutadiene	0.194	0.208		7.2	20.0
2,4,6-Trichlorophenol	0.372	0.385		3.5	20.0
2-Fluorobiphenyl	1.299	1.327		2.2	
2,4,5-Trichlorophenol	0.405	0.420		3.7	
2,4-Dinitrotoluene	0.406	0.439		8.1	
2,4,6-Tribromophenol	0.183	0.206		12.6	
Hexachlorobenzene	0.238	0.248		4.2	
Pentachlorophenol	0.139	0.158		13.7	20.0
Terphenyl-d14	1.297	1.228		-5.3	

All other compounds must meet a minimum RRF of 0.010.

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-01	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1242-03	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			PCB	8082A		01/31/25	02/01/25	
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1242-03RE	**JPP-6.2-013025RE**	**SOIL**			**01/30/25**			**01/30/25**
			PCB	8082A		01/31/25	02/04/25	
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP Herbicide	8151A		02/03/25	02/03/25	
			TCLP Pesticide	8081B		02/03/25	02/03/25	

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Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q1242 **Order ID:** Q1242

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-6.2-013025								
Q1242-03	JPP-6.2-013025	SOIL	Endrin	0.25	J	0.20	2.10	ug/kg
Q1242-03	JPP-6.2-013025	SOIL	4,4-DDT	0.67	J	0.21	2.10	ug/kg
Q1242-03	JPP-6.2-013025	SOIL	alpha-Chlordane	0.56	JP	0.21	2.10	ug/kg
			Total Concentration:	**1.480**				

SAMPLE DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	81.2 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093967.D	1	01/31/25 08:15	01/31/25 22:04	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	2.10	U	0.22	2.10	ug/kg
319-85-7	beta-BHC	2.10	U	0.60	2.10	ug/kg
319-86-8	delta-BHC	2.10	U	0.58	2.10	ug/kg
58-89-9	gamma-BHC (Lindane)	2.10	U	0.23	2.10	ug/kg
76-44-8	Heptachlor	2.10	U	0.21	2.10	ug/kg
309-00-2	Aldrin	2.10	U	0.17	2.10	ug/kg
1024-57-3	Heptachlor epoxide	2.10	U	0.28	2.10	ug/kg
959-98-8	Endosulfan I	2.10	U	0.21	2.10	ug/kg
60-57-1	Dieldrin	2.10	U	0.18	2.10	ug/kg
72-55-9	4,4-DDE	2.10	U	0.16	2.10	ug/kg
72-20-8	Endrin	0.25	J	0.20	2.10	ug/kg
33213-65-9	Endosulfan II	2.10	U	0.37	2.10	ug/kg
72-54-8	4,4-DDD	2.10	U	0.23	2.10	ug/kg
1031-07-8	Endosulfan Sulfate	2.10	U	0.16	2.10	ug/kg
50-29-3	4,4-DDT	0.67	J	0.21	2.10	ug/kg
72-43-5	Methoxychlor	2.10	U	0.47	2.10	ug/kg
53494-70-5	Endrin ketone	2.10	U	0.27	2.10	ug/kg
7421-93-4	Endrin aldehyde	2.10	U	0.48	2.10	ug/kg
5103-71-9	alpha-Chlordane	0.56	JP	0.21	2.10	ug/kg
5103-74-2	gamma-Chlordane	2.10	U	0.23	2.10	ug/kg
8001-35-2	Toxaphene	40.6	U	6.40	40.6	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	13.9		10 - 148	70%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.1		10 - 159	81%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	81.2 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093967.D	1	01/31/25 08:15	01/31/25 22:04	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL093725.D	PIBLK-PL093725.D	Decachlorobiphenyl	1	20	22.1	111		43	140
		Tetrachloro-m-xylene	1	20	20.8	104		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	103		77	126
I.BLK-PL093928.D	PIBLK-PL093928.D	Decachlorobiphenyl	1	20	20.6	103		43	140
		Tetrachloro-m-xylene	1	20	21.1	106		77	126
		Decachlorobiphenyl	2	20	20.4	102		43	140
		Tetrachloro-m-xylene	2	20	19.8	99		77	126
PB166413BL	PB166413BL	Decachlorobiphenyl	1	20	24.6	123		10	148
		Tetrachloro-m-xylene	1	20	23.8	119		10	159
		Decachlorobiphenyl	2	20	24.1	121		10	148
		Tetrachloro-m-xylene	2	20	22.1	110		10	159
PB166413BS	PB166413BS	Decachlorobiphenyl	1	20	21.2	106		10	148
		Tetrachloro-m-xylene	1	20	20.0	100		10	159
		Decachlorobiphenyl	2	20	21.7	109		10	148
		Tetrachloro-m-xylene	2	20	18.6	93		10	159
I.BLK-PL093942.D	PIBLK-PL093942.D	Decachlorobiphenyl	1	20	22.6	113		43	140
		Tetrachloro-m-xylene	1	20	21.7	109		77	126
		Decachlorobiphenyl	2	20	22.3	111		43	140
		Tetrachloro-m-xylene	2	20	20.1	101		77	126
I.BLK-PL093957.D	PIBLK-PL093957.D	Decachlorobiphenyl	1	20	20.4	102		43	140
		Tetrachloro-m-xylene	1	20	22.0	110		77	126
		Decachlorobiphenyl	2	20	17.1	86		43	140
		Tetrachloro-m-xylene	2	20	20.8	104		77	126
Q1239-10MS	357MS	Decachlorobiphenyl	1	20	14.9	75		10	148
		Tetrachloro-m-xylene	1	20	19.1	95		10	159
		Decachlorobiphenyl	2	20	13.7	69		10	148
		Tetrachloro-m-xylene	2	20	18.0	90		10	159
Q1239-10MSD	357MSD	Decachlorobiphenyl	1	20	15.4	77		10	148
		Tetrachloro-m-xylene	1	20	18.7	93		10	159
		Decachlorobiphenyl	2	20	13.6	68		10	148
		Tetrachloro-m-xylene	2	20	17.9	90		10	159
Q1242-03	JPP-6.2-013025	Decachlorobiphenyl	1	20	13.9	70		10	148
		Tetrachloro-m-xylene	1	20	14.8	74		10	159
		Decachlorobiphenyl	2	20	10.8	54		10	148
		Tetrachloro-m-xylene	2	20	16.1	81		10	159
I.BLK-PL093970.D	PIBLK-PL093970.D	Decachlorobiphenyl	1	20	19.3	96		43	140
		Tetrachloro-m-xylene	1	20	21.3	107		77	126
		Decachlorobiphenyl	2	20	16.1	81		43	140
		Tetrachloro-m-xylene	2	20	20.0	100		77	126

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093960.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**357MS**											
Q1239-10MS	alpha-BHC	19.63	0	19.6	ug/kg	100				60	144	
	beta-BHC	19.63	0	19.9	ug/kg	101				54	143	
	delta-BHC	19.63	0	19.1	ug/kg	97				47	144	
	gamma-BHC (Lindane)	19.63	0	19.2	ug/kg	98				61	140	
	Heptachlor	19.63	0	19.1	ug/kg	97				63	135	
	Aldrin	19.63	0	19.3	ug/kg	98				49	139	
	Heptachlor epoxide	19.63	0	20.0	ug/kg	102				32	180	
	Endosulfan I	19.63	0	19.0	ug/kg	97				56	142	
	Dieldrin	19.63	0	20.5	ug/kg	104				47	161	
	4,4'-DDE	19.63	0	21.4	ug/kg	109				55	136	
	Endrin	19.63	0	20.2	ug/kg	103				57	139	
	Endosulfan II	19.63	0	19.5	ug/kg	99				40	163	
	4,4'-DDD	19.63	0.28	22.0	ug/kg	111				37	192	
	Endosulfan sulfate	19.63	0	18.4	ug/kg	94				62	139	
	4,4'-DDT	19.63	0	18.9	ug/kg	96				51	146	
	Methoxychlor	19.63	0	17.5	ug/kg	89				54	136	
	Endrin ketone	19.63	0	17.5	ug/kg	89				60	129	
	Endrin aldehyde	19.63	0	13.7	ug/kg	70				59	132	
	alpha-Chlordane	19.63	0	20.4	ug/kg	104				30	192	
	gamma-Chlordane	19.63	0	21.0	ug/kg	107				44	175	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093961.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**357MSD**											
Q1239-10MSD	alpha-BHC	19.65	0	19.8	ug/kg	101		1		60	144	20
	beta-BHC	19.65	0	20.1	ug/kg	102		1		54	143	20
	delta-BHC	19.65	0	20.0	ug/kg	102		5		47	144	20
	gamma-BHC (Lindane)	19.65	0	19.4	ug/kg	99		1		61	140	20
	Heptachlor	19.65	0	20.3	ug/kg	103		6		63	135	20
	Aldrin	19.65	0	19.5	ug/kg	99		1		49	139	20
	Heptachlor epoxide	19.65	0	20.0	ug/kg	102		0		32	180	20
	Endosulfan I	19.65	0	19.5	ug/kg	99		2		56	142	20
	Dieldrin	19.65	0	20.6	ug/kg	105		1		47	161	20
	4,4'-DDE	19.65	0	21.4	ug/kg	109		0		55	136	20
	Endrin	19.65	0	20.9	ug/kg	106		3		57	139	20
	Endosulfan II	19.65	0	20.1	ug/kg	102		3		40	163	20
	4,4'-DDD	19.65	0.28	22.2	ug/kg	112		1		37	192	20
	Endosulfan sulfate	19.65	0	19.7	ug/kg	100		6		62	139	20
	4,4'-DDT	19.65	0	20.5	ug/kg	104		8		51	146	20
	Methoxychlor	19.65	0	19.8	ug/kg	101		13		54	136	20
	Endrin ketone	19.65	0	18.8	ug/kg	96		8		60	129	20
	Endrin aldehyde	19.65	0	18.7	ug/kg	95		30	*	59	132	20
	alpha-Chlordane	19.65	0	20.6	ug/kg	105		1		30	192	20
	gamma-Chlordane	19.65	0	20.9	ug/kg	106		1		44	175	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B **Datafile :** PL093941.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166413BS	alpha-BHC	16.66	14.9	ug/kg	89				84	123	
	beta-BHC	16.66	15.1	ug/kg	91				82	123	
	delta-BHC	16.66	15.1	ug/kg	91				83	126	
	gamma-BHC (Lindane)	16.66	14.8	ug/kg	89				83	125	
	Heptachlor	16.66	16.0	ug/kg	96				83	122	
	Aldrin	16.66	15.0	ug/kg	90				82	124	
	Heptachlor epoxide	16.66	15.3	ug/kg	92				83	120	
	Endosulfan I	16.66	15.4	ug/kg	92				81	124	
	Dieldrin	16.66	15.5	ug/kg	93				85	121	
	4,4'-DDE	16.66	16.5	ug/kg	99				81	123	
	Endrin	16.66	16.8	ug/kg	101				76	130	
	Endosulfan II	16.66	16.2	ug/kg	97				80	125	
	4,4'-DDD	16.66	17.1	ug/kg	103				80	131	
	Endosulfan sulfate	16.66	16.2	ug/kg	97				81	122	
	4,4'-DDT	16.66	17.5	ug/kg	105				70	129	
	Methoxychlor	16.66	17.2	ug/kg	103				60	119	
	Endrin ketone	16.66	15.7	ug/kg	94				77	132	
	Endrin aldehyde	16.66	15.3	ug/kg	92				79	124	
	alpha-Chlordane	16.66	15.7	ug/kg	94				84	120	
	gamma-Chlordane	16.66	15.7	ug/kg	94				83	122	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166413BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab Sample ID: PB166413BL Lab File ID: PL093940.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 01/31/2025

Date Analyzed (1): 01/31/2025 Date Analyzed (2): 01/31/2025

Time Analyzed (1): 14:28 Time Analyzed (2): 14:28

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166413BS	PB166413BS	PL093941.D	01/31/2025	01/31/2025
357MS	Q1239-10MS	PL093960.D	01/31/2025	01/31/2025
357MSD	Q1239-10MSD	PL093961.D	01/31/2025	01/31/2025
JPP-6.2-013025	Q1242-03	PL093967.D	01/31/2025	01/31/2025

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166413BL	SDG No.:	Q1242
Lab Sample ID:	PB166413BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093940.D	1	01/31/25 08:15	01/31/25 14:28	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	1.70	U	0.18	1.70	ug/kg
319-85-7	beta-BHC	1.70	U	0.49	1.70	ug/kg
319-86-8	delta-BHC	1.70	U	0.47	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	1.70	U	0.19	1.70	ug/kg
76-44-8	Heptachlor	1.70	U	0.17	1.70	ug/kg
309-00-2	Aldrin	1.70	U	0.14	1.70	ug/kg
1024-57-3	Heptachlor epoxide	1.70	U	0.23	1.70	ug/kg
959-98-8	Endosulfan I	1.70	U	0.17	1.70	ug/kg
60-57-1	Dieldrin	1.70	U	0.15	1.70	ug/kg
72-55-9	4,4-DDE	1.70	U	0.13	1.70	ug/kg
72-20-8	Endrin	1.70	U	0.16	1.70	ug/kg
33213-65-9	Endosulfan II	1.70	U	0.30	1.70	ug/kg
72-54-8	4,4-DDD	1.70	U	0.19	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	1.70	U	0.13	1.70	ug/kg
50-29-3	4,4-DDT	1.70	U	0.17	1.70	ug/kg
72-43-5	Methoxychlor	1.70	U	0.38	1.70	ug/kg
53494-70-5	Endrin ketone	1.70	U	0.22	1.70	ug/kg
7421-93-4	Endrin aldehyde	1.70	U	0.39	1.70	ug/kg
5103-71-9	alpha-Chlordane	1.70	U	0.17	1.70	ug/kg
5103-74-2	gamma-Chlordane	1.70	U	0.19	1.70	ug/kg
8001-35-2	Toxaphene	33.0	U	5.20	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	24.6		10 - 148	123%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.8		10 - 159	119%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166413BL	SDG No.:	Q1242
Lab Sample ID:	PB166413BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093940.D	1	01/31/25 08:15	01/31/25 14:28	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093725.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.1		43 - 140	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		77 - 126	104%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093725.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093928.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093928.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093928.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.6		43 - 140	103%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.1		77 - 126	106%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093928.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093928.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093928.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093942.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093942.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093942.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.6		43 - 140	113%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.7		77 - 126	109%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093942.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093942.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093942.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093957.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093957.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093957.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.4		43 - 140	102%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.0		77 - 126	110%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093957.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093957.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093957.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
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J = Estimated Value
B = Analyte Found in Associated Method Blank
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093970.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093970.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093970.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.3		43 - 140	96%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.3		77 - 126	107%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PL093970.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093970.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093970.D	1		01/31/25	pl013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166413BS	SDG No.:	Q1242
Lab Sample ID:	PB166413BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093941.D	1	01/31/25 08:15	01/31/25 14:43	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	14.9		0.18	1.70	ug/kg
319-85-7	beta-BHC	15.1		0.49	1.70	ug/kg
319-86-8	delta-BHC	15.1		0.47	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	14.8		0.19	1.70	ug/kg
76-44-8	Heptachlor	16.0		0.17	1.70	ug/kg
309-00-2	Aldrin	15.0		0.14	1.70	ug/kg
1024-57-3	Heptachlor epoxide	15.3		0.23	1.70	ug/kg
959-98-8	Endosulfan I	15.4		0.17	1.70	ug/kg
60-57-1	Dieldrin	15.5		0.15	1.70	ug/kg
72-55-9	4,4-DDE	16.5		0.13	1.70	ug/kg
72-20-8	Endrin	16.8		0.16	1.70	ug/kg
33213-65-9	Endosulfan II	16.2		0.30	1.70	ug/kg
72-54-8	4,4-DDD	17.1		0.19	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	16.2		0.13	1.70	ug/kg
50-29-3	4,4-DDT	17.5		0.17	1.70	ug/kg
72-43-5	Methoxychlor	17.2		0.38	1.70	ug/kg
53494-70-5	Endrin ketone	15.7		0.22	1.70	ug/kg
7421-93-4	Endrin aldehyde	15.3		0.39	1.70	ug/kg
5103-71-9	alpha-Chlordane	15.7		0.17	1.70	ug/kg
5103-74-2	gamma-Chlordane	15.7		0.19	1.70	ug/kg
8001-35-2	Toxaphene	33.0	U	5.20	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.7		10 - 148	109%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.0		10 - 159	100%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166413BS	SDG No.:	Q1242
Lab Sample ID:	PB166413BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093941.D	1	01/31/25 08:15	01/31/25 14:43	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093960.D	1	01/31/25 08:15	01/31/25 20:31	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	19.6		0.21	2.00	ug/kg
319-85-7	beta-BHC	19.9		0.58	2.00	ug/kg
319-86-8	delta-BHC	19.1		0.55	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	19.2		0.22	2.00	ug/kg
76-44-8	Heptachlor	19.1		0.20	2.00	ug/kg
309-00-2	Aldrin	19.3		0.16	2.00	ug/kg
1024-57-3	Heptachlor epoxide	20.0		0.27	2.00	ug/kg
959-98-8	Endosulfan I	19.0		0.20	2.00	ug/kg
60-57-1	Dieldrin	20.5		0.18	2.00	ug/kg
72-55-9	4,4-DDE	21.4		0.15	2.00	ug/kg
72-20-8	Endrin	20.2		0.19	2.00	ug/kg
33213-65-9	Endosulfan II	19.5		0.35	2.00	ug/kg
72-54-8	4,4-DDD	22.0		0.22	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	18.4		0.15	2.00	ug/kg
50-29-3	4,4-DDT	18.9		0.20	2.00	ug/kg
72-43-5	Methoxychlor	17.5		0.45	2.00	ug/kg
53494-70-5	Endrin ketone	17.5		0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	13.7		0.46	2.00	ug/kg
5103-71-9	alpha-Chlordane	20.4		0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	21.0		0.22	2.00	ug/kg
8001-35-2	Toxaphene	38.9	U	6.10	38.9	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	14.9		10 - 148	75%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.1		10 - 159	95%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093960.D	1	01/31/25 08:15	01/31/25 20:31	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093961.D	1	01/31/25 08:15	01/31/25 20:45	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	19.8		0.21	2.00	ug/kg
319-85-7	beta-BHC	20.1		0.58	2.00	ug/kg
319-86-8	delta-BHC	20.0		0.55	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	19.4		0.22	2.00	ug/kg
76-44-8	Heptachlor	20.3		0.20	2.00	ug/kg
309-00-2	Aldrin	19.5		0.17	2.00	ug/kg
1024-57-3	Heptachlor epoxide	20.0		0.27	2.00	ug/kg
959-98-8	Endosulfan I	19.5		0.20	2.00	ug/kg
60-57-1	Dieldrin	20.6		0.18	2.00	ug/kg
72-55-9	4,4-DDE	21.4		0.15	2.00	ug/kg
72-20-8	Endrin	20.9		0.19	2.00	ug/kg
33213-65-9	Endosulfan II	20.1		0.35	2.00	ug/kg
72-54-8	4,4-DDD	22.2		0.22	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	19.7		0.15	2.00	ug/kg
50-29-3	4,4-DDT	20.5		0.20	2.00	ug/kg
72-43-5	Methoxychlor	19.8		0.45	2.00	ug/kg
53494-70-5	Endrin ketone	18.8		0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	18.7		0.46	2.00	ug/kg
5103-71-9	alpha-Chlordane	20.6		0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	20.9		0.22	2.00	ug/kg
8001-35-2	Toxaphene	38.9	U	6.20	38.9	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.4		10 - 148	77%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.7		10 - 159	93%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1242
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093961.D	1	01/31/25 08:15	01/31/25 20:45	PB166413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	6.71	6.71	6.71	6.71	6.71	6.71	6.61	6.81
4,4'-DDE	6.19	6.19	6.19	6.19	6.19	6.19	6.09	6.29
4,4'-DDT	7.02	7.02	7.02	7.02	7.02	7.02	6.92	7.12
Aldrin	5.26	5.26	5.26	5.26	5.26	5.26	5.16	5.36
alpha-BHC	4.00	4.00	4.00	4.00	3.99	3.99	3.89	4.09
alpha-Chlordane	6.02	6.02	6.02	6.02	6.02	6.02	5.92	6.12
beta-BHC	4.53	4.53	4.53	4.53	4.53	4.53	4.43	4.63
Decachlorobiphenyl	9.05	9.05	9.05	9.05	9.05	9.05	8.95	9.15
delta-BHC	4.77	4.77	4.77	4.77	4.77	4.77	4.67	4.87
Dieldrin	6.34	6.34	6.34	6.34	6.34	6.34	6.24	6.44
Endosulfan I	6.07	6.07	6.07	6.07	6.07	6.07	5.97	6.17
Endosulfan II	6.79	6.79	6.79	6.79	6.79	6.79	6.69	6.89
Endosulfan sulfate	7.16	7.16	7.16	7.16	7.16	7.16	7.06	7.26
Endrin	6.57	6.57	6.57	6.57	6.57	6.57	6.47	6.67
Endrin aldehyde	6.92	6.92	6.92	6.92	6.92	6.92	6.82	7.02
Endrin ketone	7.64	7.64	7.64	7.64	7.64	7.64	7.54	7.74
gamma-BHC (Lindane)	4.33	4.33	4.33	4.33	4.33	4.33	4.23	4.43
gamma-Chlordane	5.94	5.94	5.94	5.94	5.94	5.94	5.84	6.04
Heptachlor	4.92	4.92	4.91	4.91	4.91	4.91	4.81	5.01
Heptachlor epoxide	5.68	5.68	5.68	5.68	5.68	5.68	5.58	5.78
Methoxychlor	7.50	7.50	7.50	7.50	7.50	7.50	7.40	7.60
Tetrachloro-m-xylene	3.54	3.54	3.54	3.54	3.54	3.54	3.44	3.64

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	5.79	5.78	5.78	5.78	5.78	5.78	5.68	5.88
4,4'-DDE	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
4,4'-DDT	6.04	6.03	6.03	6.03	6.03	6.03	5.93	6.13
Aldrin	4.23	4.23	4.23	4.22	4.22	4.22	4.12	4.32
alpha-BHC	3.28	3.28	3.28	3.28	3.28	3.28	3.18	3.38
alpha-Chlordane	5.04	5.04	5.04	5.04	5.04	5.04	4.94	5.14
beta-BHC	3.91	3.91	3.91	3.91	3.91	3.91	3.81	4.01
Decachlorobiphenyl	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
delta-BHC	4.14	4.14	4.14	4.14	4.13	4.14	4.04	4.24
Dieldrin	5.36	5.36	5.36	5.36	5.36	5.36	5.26	5.46
Endosulfan I	5.10	5.10	5.10	5.10	5.10	5.10	5.00	5.20
Endosulfan II	5.93	5.93	5.93	5.93	5.93	5.93	5.83	6.03
Endosulfan sulfate	6.33	6.33	6.33	6.33	6.33	6.33	6.23	6.43
Endrin	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
Endrin aldehyde	6.11	6.11	6.11	6.11	6.11	6.11	6.01	6.21
Endrin ketone	6.84	6.84	6.84	6.84	6.84	6.84	6.74	6.94
gamma-BHC (Lindane)	3.61	3.61	3.61	3.61	3.61	3.61	3.51	3.71
gamma-Chlordane	4.98	4.98	4.98	4.98	4.98	4.98	4.88	5.08
Heptachlor	3.95	3.95	3.95	3.95	3.94	3.94	3.84	4.04
Heptachlor epoxide	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Methoxychlor	6.61	6.61	6.61	6.61	6.61	6.61	6.51	6.71
Tetrachloro-m-xylene	2.78	2.77	2.77	2.77	2.77	2.77	2.67	2.87

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	1660930000	1679650000	1932670000	1802720000	2426830000	1900560000	17
4,4'-DDE	2179870000	2169930000	2489080000	2321590000	3012520000	2434600000	14
4,4'-DDT	1755570000	1766710000	2016720000	1907120000	2414170000	1972060000	14
Aldrin	2924220000	2896750000	3292630000	3099660000	4146570000	3271970000	16
alpha-BHC	3537700000	3490280000	3918110000	3562830000	4660310000	3833850000	13
alpha-Chlordane	2458070000	2458490000	2788200000	2666580000	3570690000	2788400000	16
beta-BHC	1393460000	1394440000	1618290000	1508890000	2121530000	1607320000	19
Decachlorobiphenyl	1768480000	1816480000	2098320000	2018470000	2757820000	2091910000	19
delta-BHC	3233860000	3194550000	3605880000	3303370000	4188780000	3505290000	12
Dieldrin	2456580000	2440810000	2788190000	2639340000	3554340000	2775850000	17
Endosulfan I	2304400000	2298550000	2637060000	2528610000	3445650000	2642860000	18
Endosulfan II	2084130000	2100600000	2413950000	2287820000	3160260000	2409350000	18
Endosulfan sulfate	1923100000	1945070000	2248580000	2190510000	3011450000	2263740000	20
Endrin	2079430000	2060990000	2363220000	2218560000	3001890000	2344820000	17
Endrin aldehyde	1673120000	1696040000	1958970000	1896570000	2495580000	1944060000	17
Endrin ketone	2196850000	2205550000	2539700000	2413910000	3257130000	2522630000	17
gamma-BHC (Lindane)	3375960000	3339350000	3767250000	3460830000	4470850000	3682850000	13
gamma-Chlordane	2455830000	2471830000	2815630000	2678390000	3515170000	2787370000	16
Heptachlor	2922500000	2901690000	3325290000	3144100000	4093120000	3277340000	15
Heptachlor epoxide	2568680000	2575960000	2953630000	2835830000	3935020000	2973820000	19
Methoxychlor	907284000	922109000	1080370000	1020090000	1287130000	1043400000	15
Tetrachloro-m-xylene	2397870000	2402980000	2740040000	2595500000	3327420000	2692760000	14

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	3134000000	3054730000	3379160000	2910470000	3304320000	3156540000	6
4,4'-DDE	3891920000	3807640000	4253650000	3749010000	4345130000	4009470000	7
4,4'-DDT	3270010000	3177800000	3542860000	3046890000	3232670000	3254050000	6
Aldrin	4482990000	4370810000	4856520000	4222470000	4876190000	4561800000	6
alpha-BHC	4914190000	4768640000	5271080000	4480730000	5010260000	4888980000	6
alpha-Chlordane	4056970000	3962110000	4424110000	3914810000	4574820000	4186560000	7
beta-BHC	1863440000	1842720000	2072180000	1889740000	2319100000	1997440000	10
Decachlorobiphenyl	3226690000	3193800000	3627020000	3320620000	4152210000	3504070000	11
delta-BHC	4741230000	4607910000	5098810000	4368820000	4939430000	4751240000	6
Dieldrin	4189300000	4076770000	4553570000	3958830000	4699760000	4295650000	7
Endosulfan I	3734100000	3661580000	4099030000	3635320000	4254550000	3876920000	7
Endosulfan II	3553260000	3487640000	3912960000	3484510000	4080760000	3703830000	7
Endosulfan sulfate	3408630000	3353240000	3757030000	3348270000	3963240000	3566080000	8
Endrin	3607760000	3481170000	3870730000	3406140000	4097610000	3692680000	8
Endrin aldehyde	2861460000	2820180000	3183430000	2892290000	3465840000	3044640000	9
Endrin ketone	3965120000	3881890000	4400080000	3907370000	4821740000	4195240000	10
gamma-BHC (Lindane)	4713370000	4597010000	5084610000	4384810000	4926270000	4741210000	6
gamma-Chlordane	4137240000	4016860000	4483010000	3935490000	4615500000	4237620000	7
Heptachlor	4505180000	4413750000	4924840000	4345980000	5084220000	4654790000	7
Heptachlor epoxide	4026840000	3946880000	4424170000	3927960000	4575440000	4180260000	7
Methoxychlor	1651870000	1634200000	1870410000	1643810000	2140390000	1788140000	12
Tetrachloro-m-xylene	3101220000	3058550000	3437230000	3066200000	3657590000	3264160000	8

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	6.24	6.14	6.34	23446000
		2	6.44	6.34	6.54	14767200
		3	7.06	6.96	7.16	75896000
		4	7.15	7.05	7.25	57345100
		5	7.93	7.83	8.03	43067100

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	5.00	4.90	5.10	27057100
		2	5.33	5.23	5.43	23947200
		3	5.68	5.58	5.78	24726400
		4	6.60	6.50	6.70	84987200
		5	7.04	6.94	7.14	80238300

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 11:17 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 11:17 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.03	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093930.D **Time Analyzed:** 11:17

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.709	6.608	6.808	50.910	50.000	1.8
4,4'-DDE	6.192	6.091	6.291	50.300	50.000	0.6
4,4'-DDT	7.023	6.922	7.122	52.710	50.000	5.4
Aldrin	5.256	5.156	5.356	45.640	50.000	-8.7
alpha-BHC	3.993	3.895	4.095	47.930	50.000	-4.1
alpha-Chlordane	6.018	5.917	6.117	46.290	50.000	-7.4
beta-BHC	4.525	4.425	4.625	47.920	50.000	-4.2
Decachlorobiphenyl	9.055	8.953	9.153	45.000	50.000	-10.0
delta-BHC	4.772	4.672	4.872	44.790	50.000	-10.4
Dieldrin	6.344	6.243	6.443	45.550	50.000	-8.9
Endosulfan I	6.068	5.967	6.167	45.360	50.000	-9.3
Endosulfan II	6.793	6.692	6.892	45.890	50.000	-8.2
Endosulfan sulfate	7.158	7.057	7.257	44.420	50.000	-11.2
Endrin	6.572	6.472	6.672	46.850	50.000	-6.3
Endrin aldehyde	6.923	6.823	7.023	43.790	50.000	-12.4
Endrin ketone	7.644	7.542	7.742	44.060	50.000	-11.9
gamma-BHC (Lindane)	4.326	4.227	4.427	47.240	50.000	-5.5
gamma-Chlordane	5.939	5.838	6.038	46.300	50.000	-7.4
Heptachlor	4.914	4.814	5.014	49.110	50.000	-1.8
Heptachlor epoxide	5.683	5.582	5.782	44.870	50.000	-10.3
Methoxychlor	7.500	7.398	7.598	51.410	50.000	2.8
Tetrachloro-m-xylene	3.538	3.439	3.639	47.330	50.000	-5.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093930.D **Time Analyzed:** 11:17

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	51.360	50.000	2.7
4,4'-DDE	5.229	5.130	5.330	51.230	50.000	2.5
4,4'-DDT	6.034	5.934	6.134	53.970	50.000	7.9
Aldrin	4.224	4.125	4.325	46.010	50.000	-8.0
alpha-BHC	3.276	3.177	3.377	48.050	50.000	-3.9
alpha-Chlordane	5.040	4.940	5.140	47.780	50.000	-4.4
beta-BHC	3.906	3.807	4.007	47.900	50.000	-4.2
Decachlorobiphenyl	7.910	7.810	8.010	47.390	50.000	-5.2
delta-BHC	4.135	4.036	4.236	46.170	50.000	-7.7
Dieldrin	5.361	5.261	5.461	47.240	50.000	-5.5
Endosulfan I	5.096	4.996	5.196	44.020	50.000	-12.0
Endosulfan II	5.931	5.831	6.031	47.980	50.000	-4.0
Endosulfan sulfate	6.333	6.233	6.433	47.140	50.000	-5.7
Endrin	5.636	5.536	5.736	51.340	50.000	2.7
Endrin aldehyde	6.110	6.010	6.210	44.640	50.000	-10.7
Endrin ketone	6.839	6.739	6.939	45.680	50.000	-8.6
gamma-BHC (Lindane)	3.606	3.507	3.707	45.940	50.000	-8.1
gamma-Chlordane	4.977	4.877	5.077	48.730	50.000	-2.5
Heptachlor	3.945	3.845	4.045	48.380	50.000	-3.2
Heptachlor epoxide	4.727	4.627	4.827	46.190	50.000	-7.6
Methoxychlor	6.610	6.509	6.709	52.540	50.000	5.1
Tetrachloro-m-xylene	2.774	2.674	2.874	47.580	50.000	-4.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 15:10 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 15:10 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.03	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093943.D **Time Analyzed:** 15:10

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.710	6.608	6.808	54.880	50.000	9.8
4,4'-DDE	6.192	6.091	6.291	53.640	50.000	7.3
4,4'-DDT	7.023	6.922	7.122	53.570	50.000	7.1
Aldrin	5.256	5.156	5.356	48.820	50.000	-2.4
alpha-BHC	3.994	3.895	4.095	50.190	50.000	0.4
alpha-Chlordane	6.018	5.917	6.117	50.080	50.000	0.2
beta-BHC	4.525	4.425	4.625	49.660	50.000	-0.7
Decachlorobiphenyl	9.056	8.953	9.153	48.430	50.000	-3.1
delta-BHC	4.772	4.672	4.872	47.390	50.000	-5.2
Dieldrin	6.344	6.243	6.443	49.090	50.000	-1.8
Endosulfan I	6.069	5.967	6.167	49.170	50.000	-1.7
Endosulfan II	6.794	6.692	6.892	48.340	50.000	-3.3
Endosulfan sulfate	7.159	7.057	7.257	46.610	50.000	-6.8
Endrin	6.572	6.472	6.672	49.260	50.000	-1.5
Endrin aldehyde	6.924	6.823	7.023	46.580	50.000	-6.8
Endrin ketone	7.644	7.542	7.742	46.800	50.000	-6.4
gamma-BHC (Lindane)	4.326	4.227	4.427	49.360	50.000	-1.3
gamma-Chlordane	5.939	5.838	6.038	49.950	50.000	-0.1
Heptachlor	4.914	4.814	5.014	51.680	50.000	3.4
Heptachlor epoxide	5.683	5.582	5.782	47.960	50.000	-4.1
Methoxychlor	7.500	7.398	7.598	53.190	50.000	6.4
Tetrachloro-m-xylene	3.537	3.439	3.639	49.370	50.000	-1.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093943.D **Time Analyzed:** 15:10

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	53.890	50.000	7.8
4,4'-DDE	5.229	5.130	5.330	51.950	50.000	3.9
4,4'-DDT	6.034	5.934	6.134	53.920	50.000	7.8
Aldrin	4.224	4.125	4.325	47.070	50.000	-5.9
alpha-BHC	3.276	3.177	3.377	49.480	50.000	-1.0
alpha-Chlordane	5.040	4.940	5.140	49.320	50.000	-1.4
beta-BHC	3.906	3.807	4.007	48.590	50.000	-2.8
Decachlorobiphenyl	7.911	7.810	8.010	49.210	50.000	-1.6
delta-BHC	4.135	4.036	4.236	46.340	50.000	-7.3
Dieldrin	5.361	5.261	5.461	48.660	50.000	-2.7
Endosulfan I	5.096	4.996	5.196	45.000	50.000	-10.0
Endosulfan II	5.931	5.831	6.031	49.800	50.000	-0.4
Endosulfan sulfate	6.333	6.233	6.433	48.390	50.000	-3.2
Endrin	5.636	5.536	5.736	51.550	50.000	3.1
Endrin aldehyde	6.110	6.010	6.210	45.680	50.000	-8.6
Endrin ketone	6.839	6.739	6.939	48.250	50.000	-3.5
gamma-BHC (Lindane)	3.606	3.507	3.707	47.750	50.000	-4.5
gamma-Chlordane	4.976	4.877	5.077	50.160	50.000	0.3
Heptachlor	3.944	3.845	4.045	49.210	50.000	-1.6
Heptachlor epoxide	4.726	4.627	4.827	47.640	50.000	-4.7
Methoxychlor	6.609	6.509	6.709	52.440	50.000	4.9
Tetrachloro-m-xylene	2.773	2.674	2.874	48.600	50.000	-2.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 20:18 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.52	4.53	4.43	4.63	0.01
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 20:18 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.04	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093959.D **Time Analyzed:** 20:18

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.710	6.608	6.808	54.500	50.000	9.0
4,4'-DDE	6.192	6.091	6.291	51.300	50.000	2.6
4,4'-DDT	7.023	6.922	7.122	48.330	50.000	-3.3
Aldrin	5.256	5.156	5.356	47.800	50.000	-4.4
alpha-BHC	3.994	3.895	4.095	50.690	50.000	1.4
alpha-Chlordane	6.018	5.917	6.117	48.070	50.000	-3.9
beta-BHC	4.524	4.425	4.625	50.600	50.000	1.2
Decachlorobiphenyl	9.056	8.953	9.153	45.870	50.000	-8.3
delta-BHC	4.772	4.672	4.872	49.100	50.000	-1.8
Dieldrin	6.343	6.243	6.443	47.370	50.000	-5.3
Endosulfan I	6.068	5.967	6.167	46.980	50.000	-6.0
Endosulfan II	6.794	6.692	6.892	46.660	50.000	-6.7
Endosulfan sulfate	7.159	7.057	7.257	45.370	50.000	-9.3
Endrin	6.572	6.472	6.672	45.760	50.000	-8.5
Endrin aldehyde	6.924	6.823	7.023	45.260	50.000	-9.5
Endrin ketone	7.644	7.542	7.742	45.780	50.000	-8.4
gamma-BHC (Lindane)	4.326	4.227	4.427	49.510	50.000	-1.0
gamma-Chlordane	5.939	5.838	6.038	48.430	50.000	-3.1
Heptachlor	4.914	4.814	5.014	49.860	50.000	-0.3
Heptachlor epoxide	5.683	5.582	5.782	46.670	50.000	-6.7
Methoxychlor	7.500	7.398	7.598	47.640	50.000	-4.7
Tetrachloro-m-xylene	3.538	3.439	3.639	49.950	50.000	-0.1

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/31/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093959.D **Time Analyzed:** 20:18

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	53.950	50.000	7.9
4,4'-DDE	5.229	5.130	5.330	53.020	50.000	6.0
4,4'-DDT	6.035	5.934	6.134	48.230	50.000	-3.5
Aldrin	4.224	4.125	4.325	48.560	50.000	-2.9
alpha-BHC	3.276	3.177	3.377	50.850	50.000	1.7
alpha-Chlordane	5.040	4.940	5.140	50.410	50.000	0.8
beta-BHC	3.907	3.807	4.007	50.650	50.000	1.3
Decachlorobiphenyl	7.911	7.810	8.010	44.510	50.000	-11.0
delta-BHC	4.135	4.036	4.236	48.490	50.000	-3.0
Dieldrin	5.361	5.261	5.461	48.940	50.000	-2.1
Endosulfan I	5.096	4.996	5.196	45.790	50.000	-8.4
Endosulfan II	5.931	5.831	6.031	48.780	50.000	-2.4
Endosulfan sulfate	6.334	6.233	6.433	46.930	50.000	-6.1
Endrin	5.636	5.536	5.736	48.830	50.000	-2.3
Endrin aldehyde	6.111	6.010	6.210	44.850	50.000	-10.3
Endrin ketone	6.839	6.739	6.939	46.120	50.000	-7.8
gamma-BHC (Lindane)	3.606	3.507	3.707	49.220	50.000	-1.6
gamma-Chlordane	4.975	4.877	5.077	50.890	50.000	1.8
Heptachlor	3.945	3.845	4.045	49.210	50.000	-1.6
Heptachlor epoxide	4.727	4.627	4.827	49.060	50.000	-1.9
Methoxychlor	6.610	6.509	6.709	46.040	50.000	-7.9
Tetrachloro-m-xylene	2.773	2.674	2.874	50.250	50.000	0.5

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 00:57 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.35	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.80	6.79	6.69	6.89	-0.01
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.03	7.02	6.92	7.12	-0.01
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.65	7.64	7.54	7.74	0.00
Endrin aldehyde	6.93	6.92	6.82	7.02	-0.01
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 00:57 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.79	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.04	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/01/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093971.D **Time Analyzed:** 00:57

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.711	6.608	6.808	54.730	50.000	9.5
4,4'-DDE	6.192	6.091	6.291	51.870	50.000	3.7
4,4'-DDT	7.025	6.922	7.122	44.830	50.000	-10.3
Aldrin	5.257	5.156	5.356	49.150	50.000	-1.7
alpha-BHC	3.994	3.895	4.095	51.630	50.000	3.3
alpha-Chlordane	6.018	5.917	6.117	49.050	50.000	-1.9
beta-BHC	4.526	4.425	4.625	50.470	50.000	0.9
Decachlorobiphenyl	9.057	8.953	9.153	44.060	50.000	-11.9
delta-BHC	4.772	4.672	4.872	49.410	50.000	-1.2
Dieldrin	6.345	6.243	6.443	47.520	50.000	-5.0
Endosulfan I	6.069	5.967	6.167	48.060	50.000	-3.9
Endosulfan II	6.795	6.692	6.892	46.330	50.000	-7.3
Endosulfan sulfate	7.160	7.057	7.257	44.270	50.000	-11.5
Endrin	6.573	6.472	6.672	44.470	50.000	-11.1
Endrin aldehyde	6.925	6.823	7.023	44.530	50.000	-10.9
Endrin ketone	7.645	7.542	7.742	44.660	50.000	-10.7
gamma-BHC (Lindane)	4.327	4.227	4.427	50.040	50.000	0.1
gamma-Chlordane	5.940	5.838	6.038	49.550	50.000	-0.9
Heptachlor	4.915	4.814	5.014	50.120	50.000	0.2
Heptachlor epoxide	5.683	5.582	5.782	47.790	50.000	-4.4
Methoxychlor	7.500	7.398	7.598	43.640	50.000	-12.7
Tetrachloro-m-xylene	3.538	3.439	3.639	51.110	50.000	2.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/01/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093971.D **Time Analyzed:** 00:57

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.785	5.684	5.884	56.200	50.000	12.4
4,4'-DDE	5.230	5.130	5.330	54.610	50.000	9.2
4,4'-DDT	6.035	5.934	6.134	46.460	50.000	-7.1
Aldrin	4.224	4.125	4.325	50.030	50.000	0.1
alpha-BHC	3.276	3.177	3.377	53.120	50.000	6.2
alpha-Chlordane	5.041	4.940	5.140	51.720	50.000	3.4
beta-BHC	3.906	3.807	4.007	52.880	50.000	5.8
Decachlorobiphenyl	7.911	7.810	8.010	42.340	50.000	-15.3
delta-BHC	4.135	4.036	4.236	50.050	50.000	0.1
Dieldrin	5.361	5.261	5.461	50.490	50.000	1.0
Endosulfan I	5.097	4.996	5.196	45.740	50.000	-8.5
Endosulfan II	5.932	5.831	6.031	49.620	50.000	-0.8
Endosulfan sulfate	6.334	6.233	6.433	47.400	50.000	-5.2
Endrin	5.637	5.536	5.736	49.760	50.000	-0.5
Endrin aldehyde	6.111	6.010	6.210	45.370	50.000	-9.3
Endrin ketone	6.840	6.739	6.939	45.870	50.000	-8.3
gamma-BHC (Lindane)	3.606	3.507	3.707	51.100	50.000	2.2
gamma-Chlordane	4.977	4.877	5.077	52.470	50.000	4.9
Heptachlor	3.945	3.845	4.045	50.220	50.000	0.4
Heptachlor epoxide	4.727	4.627	4.827	50.070	50.000	0.1
Methoxychlor	6.611	6.509	6.709	45.230	50.000	-9.5
Tetrachloro-m-xylene	2.774	2.674	2.874	52.270	50.000	4.5

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.052	8.950	9.150	18.070	20.000	-9.7
Tetrachloro-m-xylene	3.538	3.490	3.590	18.530	20.000	-7.4
alpha-BHC	3.994	3.940	4.040	9.490	10.000	-5.1
beta-BHC	4.525	4.470	4.580	9.790	10.000	-2.1
gamma-BHC (Lindane)	4.326	4.280	4.380	9.300	10.000	-7.0
Endrin	6.572	6.500	6.640	41.270	50.000	-17.5
4,4'-DDT	7.022	6.950	7.090	82.410	100.000	-17.6
Methoxychlor	7.498	7.430	7.570	190.380	250.000	-23.8

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	17.950	20.000	-10.3
Tetrachloro-m-xylene	2.775	2.720	2.830	17.900	20.000	-10.5
alpha-BHC	3.277	3.230	3.330	8.620	10.000	-13.8
beta-BHC	3.907	3.860	3.960	9.800	10.000	-2.0
gamma-BHC (Lindane)	3.607	3.560	3.660	8.300	10.000	-17.0
Endrin	5.636	5.570	5.710	42.700	50.000	-14.6
4,4'-DDT	6.034	5.960	6.100	96.510	100.000	-3.5
Methoxychlor	6.609	6.540	6.680	209.940	250.000	-16.0

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093929.D **Date Analyzed:** 01/31/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:04

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.055	8.950	9.160	20.810	20.000	4.1
Tetrachloro-m-xylene	3.536	3.490	3.590	21.970	20.000	9.9
alpha-BHC	3.993	3.940	4.040	11.710	10.000	17.1
beta-BHC	4.524	4.470	4.570	11.950	10.000	19.5
gamma-BHC (Lindane)	4.325	4.270	4.380	11.550	10.000	15.5
Endrin	6.571	6.500	6.640	48.650	50.000	-2.7
4,4'-DDT	7.023	6.950	7.090	111.680	100.000	11.7
Methoxychlor	7.499	7.430	7.570	263.710	250.000	5.5

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093929.D **Date Analyzed:** 01/31/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:04

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	20.550	20.000	2.8
Tetrachloro-m-xylene	2.773	2.720	2.820	21.090	20.000	5.5
alpha-BHC	3.276	3.230	3.330	10.040	10.000	0.4
beta-BHC	3.906	3.860	3.960	10.760	10.000	7.6
gamma-BHC (Lindane)	3.606	3.560	3.660	9.410	10.000	-5.9
Endrin	5.636	5.570	5.710	52.600	50.000	5.2
4,4'-DDT	6.034	5.960	6.100	118.390	100.000	18.4
Methoxychlor	6.609	6.540	6.680	266.850	250.000	6.7

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093958.D **Date Analyzed:** 01/31/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 19:39

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.960	9.160	20.910	20.000	4.6
Tetrachloro-m-xylene	3.537	3.490	3.590	23.840	20.000	19.2
alpha-BHC	3.993	3.940	4.040	12.420	10.000	24.2
beta-BHC	4.525	4.470	4.580	12.480	10.000	24.8
gamma-BHC (Lindane)	4.326	4.280	4.380	11.910	10.000	19.1
Endrin	6.572	6.500	6.640	47.160	50.000	-5.7
4,4'-DDT	7.024	6.950	7.090	98.200	100.000	-1.8
Methoxychlor	7.501	7.430	7.570	231.470	250.000	-7.4

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093958.D **Date Analyzed:** 01/31/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 19:39

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.911	7.810	8.010	18.550	20.000	-7.3
Tetrachloro-m-xylene	2.774	2.720	2.820	22.890	20.000	14.5
alpha-BHC	3.276	3.230	3.330	10.850	10.000	8.5
beta-BHC	3.907	3.860	3.960	12.090	10.000	20.9
gamma-BHC (Lindane)	3.606	3.560	3.660	10.490	10.000	4.9
Endrin	5.637	5.570	5.710	50.900	50.000	1.8
4,4'-DDT	6.034	5.960	6.100	108.940	100.000	8.9
Methoxychlor	6.611	6.540	6.680	235.360	250.000	-5.9

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	9.05	3.54
PEM	PEM	01/21/2025	10:30	PL093726.D	9.05	3.54
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	9.05	3.54
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	9.05	3.54
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	9.05	3.54
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	9.05	3.54
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	9.05	3.54
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	9.05	3.54
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	9.05	3.54
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	9.05	3.54
I.BLK	I.BLK	01/31/2025	10:51	PL093928.D	9.05	3.54
PEM	PEM	01/31/2025	11:04	PL093929.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/31/2025	11:17	PL093930.D	9.06	3.54
PB166413BL	PB166413BL	01/31/2025	14:28	PL093940.D	9.06	3.54
PB166413BS	PB166413BS	01/31/2025	14:43	PL093941.D	9.06	3.54
I.BLK	I.BLK	01/31/2025	14:57	PL093942.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/31/2025	15:10	PL093943.D	9.06	3.54
I.BLK	I.BLK	01/31/2025	19:26	PL093957.D	9.06	3.54
PEM	PEM	01/31/2025	19:39	PL093958.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/31/2025	20:18	PL093959.D	9.06	3.54
357MS	Q1239-10MS	01/31/2025	20:31	PL093960.D	9.06	3.54
357MSD	Q1239-10MSD	01/31/2025	20:45	PL093961.D	9.06	3.54
JPP-6.2-013025	Q1242-03	01/31/2025	22:04	PL093967.D	9.06	3.54
I.BLK	I.BLK	01/31/2025	22:43	PL093970.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/01/2025	00:57	PL093971.D	9.06	3.54

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	7.91	2.78
PEM	PEM	01/21/2025	10:30	PL093726.D	7.91	2.78
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	7.91	2.77
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	7.91	2.78
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	7.91	2.77
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	7.91	2.77
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	7.91	2.77
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	7.91	2.77
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	7.91	2.77
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	7.91	2.77
I.BLK	I.BLK	01/31/2025	10:51	PL093928.D	7.91	2.77
PEM	PEM	01/31/2025	11:04	PL093929.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/31/2025	11:17	PL093930.D	7.91	2.77
PB166413BL	PB166413BL	01/31/2025	14:28	PL093940.D	7.91	2.77
PB166413BS	PB166413BS	01/31/2025	14:43	PL093941.D	7.91	2.77
I.BLK	I.BLK	01/31/2025	14:57	PL093942.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/31/2025	15:10	PL093943.D	7.91	2.77
I.BLK	I.BLK	01/31/2025	19:26	PL093957.D	7.91	2.77
PEM	PEM	01/31/2025	19:39	PL093958.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/31/2025	20:18	PL093959.D	7.91	2.77
357MS	Q1239-10MS	01/31/2025	20:31	PL093960.D	7.91	2.77
357MSD	Q1239-10MSD	01/31/2025	20:45	PL093961.D	7.91	2.77
JPP-6.2-013025	Q1242-03	01/31/2025	22:04	PL093967.D	7.91	2.77
I.BLK	I.BLK	01/31/2025	22:43	PL093970.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/01/2025	00:57	PL093971.D	7.91	2.77

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
357MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1239-10MS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.79	6.74	6.84	18.7	4.2
	2	5.93	5.88	5.98	19.5	
4,4'-DDD	1	6.71	6.66	6.76	22.0	2.8
	2	5.79	5.74	5.84	21.4	
4,4'-DDT	1	7.02	6.97	7.07	18.9	0.5
	2	6.04	5.99	6.09	18.8	
Endrin aldehyde	1	6.92	6.87	6.97	13.7	3.7
	2	6.11	6.06	6.16	13.2	
Endosulfan sulfate	1	7.16	7.11	7.21	18.2	1.1
	2	6.33	6.28	6.38	18.4	
Methoxychlor	1	7.50	7.45	7.55	17.4	0.6
	2	6.61	6.56	6.66	17.5	
Endrin ketone	1	7.65	7.60	7.70	17.5	0
	2	6.84	6.79	6.89	17.5	
alpha-BHC	1	3.99	3.94	4.04	19.6	2.1
	2	3.28	3.23	3.33	19.2	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	19.2	1.6
	2	3.61	3.56	3.66	18.9	
Heptachlor	1	4.92	4.87	4.97	19.1	3.7
	2	3.95	3.90	4.00	18.4	
Aldrin	1	5.26	5.21	5.31	19.3	0
	2	4.22	4.17	4.27	19.3	
beta-BHC	1	4.53	4.48	4.58	19.8	0.5
	2	3.91	3.86	3.96	19.9	
delta-BHC	1	4.77	4.72	4.82	19.1	1.1
	2	4.14	4.09	4.19	18.9	
Heptachlor epoxide	1	5.68	5.63	5.73	18.6	7.3
	2	4.73	4.68	4.78	20.0	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
357MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1239-10MS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan I	1	6.07	6.02	6.12	19.0	0.5
	2	5.10	5.05	5.15	18.9	
gamma-Chlordane	1	5.94	5.89	5.99	20.2	3.9
	2	4.98	4.93	5.03	21.0	
alpha-Chlordane	1	6.02	5.97	6.07	19.8	3
	2	5.04	4.99	5.09	20.4	
4,4'-DDE	1	6.19	6.14	6.24	19.9	7.3
	2	5.23	5.18	5.28	21.4	
Dieldrin	1	6.35	6.30	6.40	19.2	6.5
	2	5.36	5.31	5.41	20.5	
Endrin	1	6.57	6.52	6.62	18.6	8.2
	2	5.64	5.59	5.69	20.2	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
357MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1239-10MSD **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.79	6.74	6.84	19.2	4.6
	2	5.93	5.88	5.98	20.1	
4,4'-DDD	1	6.71	6.66	6.76	22.2	2.7
	2	5.78	5.73	5.83	21.6	
alpha-Chlordane	1	6.02	5.97	6.07	20.0	3
	2	5.04	4.99	5.09	20.6	
4,4'-DDE	1	6.19	6.14	6.24	20.0	6.8
	2	5.23	5.18	5.28	21.4	
Dieldrin	1	6.34	6.29	6.39	19.2	7
	2	5.36	5.31	5.41	20.6	
Endrin	1	6.57	6.52	6.62	19.0	9.5
	2	5.64	5.59	5.69	20.9	
4,4'-DDT	1	7.02	6.97	7.07	20.5	0.5
	2	6.03	5.98	6.08	20.4	
Endrin aldehyde	1	6.92	6.87	6.97	18.7	0
	2	6.11	6.06	6.16	18.7	
Endosulfan sulfate	1	7.16	7.11	7.21	18.9	4.1
	2	6.33	6.28	6.38	19.7	
Methoxychlor	1	7.50	7.45	7.55	19.8	1
	2	6.61	6.56	6.66	19.6	
Endrin ketone	1	7.64	7.59	7.69	18.8	0
	2	6.84	6.79	6.89	18.8	
alpha-BHC	1	3.99	3.94	4.04	19.8	2
	2	3.28	3.23	3.33	19.4	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	19.4	1
	2	3.61	3.56	3.66	19.2	
Heptachlor	1	4.91	4.86	4.96	20.3	3.5
	2	3.94	3.89	3.99	19.6	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
357MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1239-10MSD **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Aldrin	1	5.26	5.21	5.31	19.5	1
	2	4.22	4.17	4.27	19.3	
beta-BHC	1	4.53	4.48	4.58	20.1	0.5
	2	3.91	3.86	3.96	20.0	
delta-BHC	1	4.77	4.72	4.82	20.0	3
	2	4.13	4.08	4.18	19.4	
Heptachlor epoxide	1	5.68	5.63	5.73	18.9	5.7
	2	4.73	4.68	4.78	20.0	
Endosulfan I	1	6.07	6.02	6.12	19.5	1
	2	5.10	5.05	5.15	19.3	
gamma-Chlordane	1	5.94	5.89	5.99	20.1	3.9
	2	4.98	4.93	5.03	20.9	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-6.2-013025

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1242-03 **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
alpha-Chlordane	1	6.02	5.97	6.07	0.56	72.6
	2	5.04	4.99	5.09	0.26	
Endrin	1	6.57	6.52	6.62	0.25	15.9
	2	5.64	5.59	5.69	0.21	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB166413BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: PB166413BS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDD	1	6.71	6.66	6.76	17.0	0.6
	2	5.79	5.74	5.84	17.1	
4,4'-DDT	1	7.03	6.98	7.08	17.5	0
	2	6.04	5.99	6.09	17.5	
Aldrin	1	5.26	5.21	5.31	15.0	3.4
	2	4.23	4.18	4.28	14.5	
4,4'-DDE	1	6.19	6.14	6.24	16.5	0.6
	2	5.23	5.18	5.28	16.4	
Endosulfan II	1	6.80	6.75	6.85	15.5	4.4
	2	5.93	5.88	5.98	16.2	
Endrin aldehyde	1	6.93	6.88	6.98	15.0	2
	2	6.11	6.06	6.16	15.3	
Endosulfan sulfate	1	7.16	7.11	7.21	15.1	7
	2	6.33	6.28	6.38	16.2	
Methoxychlor	1	7.50	7.45	7.55	16.6	3.6
	2	6.61	6.56	6.66	17.2	
Endrin ketone	1	7.65	7.60	7.70	15.2	3.2
	2	6.84	6.79	6.89	15.7	
alpha-BHC	1	4.00	3.95	4.05	14.9	2
	2	3.28	3.23	3.33	14.6	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	14.8	3.4
	2	3.61	3.56	3.66	14.3	
Heptachlor	1	4.92	4.87	4.97	16.0	4.5
	2	3.95	3.90	4.00	15.3	
beta-BHC	1	4.53	4.48	4.58	15.0	0.7
	2	3.91	3.86	3.96	15.1	
delta-BHC	1	4.78	4.73	4.83	15.1	4.1
	2	4.14	4.09	4.19	14.5	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB166413BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: PB166413BS **Date(s) Analyzed:** 01/31/2025 01/31/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Heptachlor epoxide	1	5.69	5.64	5.74	14.8	3.3
	2	4.73	4.68	4.78	15.3	
Endosulfan I	1	6.07	6.02	6.12	15.4	2
	2	5.10	5.05	5.15	15.1	
gamma-Chlordane	1	5.94	5.89	5.99	15.4	1.9
	2	4.98	4.93	5.03	15.7	
alpha-Chlordane	1	6.02	5.97	6.07	15.6	0.6
	2	5.04	4.99	5.09	15.7	
Dieldrin	1	6.35	6.30	6.40	15.4	0.6
	2	5.36	5.31	5.41	15.5	
Endrin	1	6.58	6.53	6.63	15.7	6.8
	2	5.64	5.59	5.69	16.8	

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-01	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP Herbicide	8151A		02/03/25	02/03/25	
			TCLP Pesticide	8081B		02/03/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242 **Order ID:** Q1242

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: 0.000

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PB166423TB	SDG No.:	Q1242
Lab Sample ID:	PB166423TB	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094011.D	1	02/03/25 09:36	02/03/25 20:02	PB166484

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	25.9		43 - 140	130%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.7		77 - 126	118%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-04	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094019.D	1	02/03/25 09:36	02/03/25 21:48	PB166484

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	25.4		43 - 140	127%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.9		77 - 126	119%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL093725.D	PIBLK-PL093725.D	Decachlorobiphenyl	1	20	22.1	111		43	140
		Tetrachloro-m-xylene	1	20	20.8	104		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	103		77	126
I.BLK-PL093999.D	PIBLK-PL093999.D	Decachlorobiphenyl	1	20	28.1	140		43	140
		Tetrachloro-m-xylene	1	20	21.1	106		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	102		77	126
PB166484BL	PB166484BL	Decachlorobiphenyl	1	20	24.0	120		43	140
		Tetrachloro-m-xylene	1	20	23.4	117		77	126
		Decachlorobiphenyl	2	20	24.6	123		43	140
		Tetrachloro-m-xylene	2	20	22.3	112		77	126
PB166423TB	PB166423TB	Decachlorobiphenyl	1	20	24.6	123		43	140
		Tetrachloro-m-xylene	1	20	23.7	118		77	126
		Decachlorobiphenyl	2	20	25.9	130		43	140
		Tetrachloro-m-xylene	2	20	22.7	114		77	126
Q1241-04MS	JPP-3.5-013025MS	Decachlorobiphenyl	1	20	25.2	126		43	140
		Tetrachloro-m-xylene	1	20	22.9	114		77	126
		Decachlorobiphenyl	2	20	26.6	133		43	140
		Tetrachloro-m-xylene	2	20	22.3	112		77	126
Q1241-04MSD	JPP-3.5-013025MSD	Decachlorobiphenyl	1	20	25.1	126		43	140
		Tetrachloro-m-xylene	1	20	23.1	116		77	126
		Decachlorobiphenyl	2	20	26.7	134		43	140
		Tetrachloro-m-xylene	2	20	22.4	112		77	126
Q1242-04	JPP-6.2-013025	Decachlorobiphenyl	1	20	23.8	119		43	140
		Tetrachloro-m-xylene	1	20	23.9	119		77	126
		Decachlorobiphenyl	2	20	25.4	127		43	140
		Tetrachloro-m-xylene	2	20	23.3	116		77	126
I.BLK-PL094020.D	PIBLK-PL094020.D	Decachlorobiphenyl	1	20	22.8	114		43	140
		Tetrachloro-m-xylene	1	20	21.6	108		77	126
		Decachlorobiphenyl	2	20	24.3	121		43	140
		Tetrachloro-m-xylene	2	20	21.1	106		77	126
I.BLK-PL094036.D	PIBLK-PL094036.D	Decachlorobiphenyl	1	20	23.0	115		43	140
		Tetrachloro-m-xylene	1	20	22.4	112		77	126
		Decachlorobiphenyl	2	20	23.3	116		43	140
		Tetrachloro-m-xylene	2	20	21.9	110		77	126
PB166484BS	PB166484BS	Decachlorobiphenyl	1	20	20.7	103		43	140
		Tetrachloro-m-xylene	1	20	21.6	108		77	126
		Decachlorobiphenyl	2	20	19.1	95		43	140
		Tetrachloro-m-xylene	2	20	20.4	102		77	126
I.BLK-PL094051.D	PIBLK-PL094051.D	Decachlorobiphenyl	1	20	20.1	101		43	140

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Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL094051.D	PIBLK-PL094051.D	Tetrachloro-m-xylene	1	20	21.9	109		77	126
		Decachlorobiphenyl	2	20	19.6	98		43	140
		Tetrachloro-m-xylene	2	20	21.4	107		77	126

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL094013.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-3.5-013025MS**											
Q1241-04MS	gamma-BHC (Lindane)	5	0	5.00	ug/L	100				60	152	
	Heptachlor	5	0	5.30	ug/L	106				56	147	
	Heptachlor epoxide	5	0	5.10	ug/L	102				77	143	
	Endrin	5	0	5.60	ug/L	112				76	144	
	Methoxychlor	5	0	5.80	ug/L	116				70	142	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL094014.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-3.5-013025MSD**											
Q1241-04MSD	gamma-BHC (Lindane)	5	0	5.10	ug/L	102		2		60	152	20
	Heptachlor	5	0	5.30	ug/L	106		0		56	147	20
	Heptachlor epoxide	5	0	5.10	ug/L	102		0		77	143	20
	Endrin	5	0	5.60	ug/L	112		0		76	144	20
	Methoxychlor	5	0	5.80	ug/L	116		0		70	142	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8081B **Datafile :** PL094042.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166484BS	gamma-BHC (Lindane)	0.5	0.48	ug/L	96				82	129	
	Heptachlor	0.5	0.48	ug/L	97				79	127	
	Heptachlor epoxide	0.5	0.49	ug/L	99				81	124	
	Endrin	0.5	0.47	ug/L	94				81	128	
	Methoxychlor	0.5	0.43	ug/L	85				78	108	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166484BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab Sample ID: PB166484BL Lab File ID: PL094009.D

Matrix: (soil/water) water Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 02/03/2025

Date Analyzed (1): 02/03/2025 Date Analyzed (2): 02/03/2025

Time Analyzed (1): 19:36 Time Analyzed (2): 19:36

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166423TB	PB166423TB	PL094011.D	02/03/2025	02/03/2025
JPP-3.5-013025MS	Q1241-04MS	PL094013.D	02/03/2025	02/03/2025
JPP-3.5-013025MSD	Q1241-04MSD	PL094014.D	02/03/2025	02/03/2025
JPP-6.2-013025	Q1242-04	PL094019.D	02/03/2025	02/03/2025
PB166484BS	PB166484BS	PL094042.D	02/04/2025	02/04/2025

COMMENTS:

QC SAMPLE DATA

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166484BL	SDG No.:	Q1242
Lab Sample ID:	PB166484BL	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094009.D	1	02/03/25 09:36	02/03/25 19:36	PB166484

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	24.6		43 - 140	123%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.4		77 - 126	117%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093725.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.1		43 - 140	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		77 - 126	104%	SPK: 20

Comments:

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Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL093999.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL093999.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093999.D	1		02/03/25	pl020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	28.1		43 - 140	140%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.1		77 - 126	106%	SPK: 20

Comments:

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Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL094020.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL094020.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094020.D	1		02/03/25	pl020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	24.3		43 - 140	121%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.6		77 - 126	108%	SPK: 20

Comments:

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PL094036.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL094036.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094036.D	1		02/04/25	pl020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.3		43 - 140	116%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.4		77 - 126	112%	SPK: 20

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() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PL094051.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PL094051.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094051.D	1		02/04/25	pl020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.1		43 - 140	101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.9		77 - 126	109%	SPK: 20

Comments:

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166484BS	SDG No.:	Q1242
Lab Sample ID:	PB166484BS	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094042.D	1	02/03/25 09:36	02/04/25 11:53	PB166484

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.48		0.0049	0.050	ug/L
76-44-8	Heptachlor	0.48		0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.49		0.0090	0.050	ug/L
72-20-8	Endrin	0.47		0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.43		0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.7		43 - 140	103%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.6		77 - 126	108%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025MS	SDG No.:	Q1242
Lab Sample ID:	Q1241-04MS	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094013.D	1	02/03/25 09:36	02/03/25 20:29	PB166484

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	5.00		0.049	0.50	ug/L
76-44-8	Heptachlor	5.30		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.10		0.090	0.50	ug/L
72-20-8	Endrin	5.60		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.80		0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	26.6		43 - 140	133%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.9		77 - 126	114%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025MSD	SDG No.:	Q1242
Lab Sample ID:	Q1241-04MSD	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094014.D	1	02/03/25 09:36	02/03/25 20:42	PB166484

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	5.10		0.049	0.50	ug/L
76-44-8	Heptachlor	5.30		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.10		0.090	0.50	ug/L
72-20-8	Endrin	5.60		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.80		0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	26.7		43 - 140	134%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.1		77 - 126	116%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	9.05	9.05	9.05	9.05	9.05	9.05	8.95	9.15
Endrin	6.57	6.57	6.57	6.57	6.57	6.57	6.47	6.67
gamma-BHC (Lindane)	4.33	4.33	4.33	4.33	4.33	4.33	4.23	4.43
Heptachlor	4.92	4.92	4.91	4.91	4.91	4.91	4.81	5.01
Heptachlor epoxide	5.68	5.68	5.68	5.68	5.68	5.68	5.58	5.78
Methoxychlor	7.50	7.50	7.50	7.50	7.50	7.50	7.40	7.60
Tetrachloro-m-xylene	3.54	3.54	3.54	3.54	3.54	3.54	3.44	3.64

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
Endrin	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
gamma-BHC (Lindane)	3.61	3.61	3.61	3.61	3.61	3.61	3.51	3.71
Heptachlor	3.95	3.95	3.95	3.95	3.94	3.94	3.84	4.04
Heptachlor epoxide	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Methoxychlor	6.61	6.61	6.61	6.61	6.61	6.61	6.51	6.71
Tetrachloro-m-xylene	2.78	2.77	2.77	2.77	2.77	2.77	2.67	2.87

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
Decachlorobiphenyl	1768480000	1816480000	2098320000	2018470000	2757820000	2091910000	19
Endrin	2079430000	2060990000	2363220000	2218560000	3001890000	2344820000	17
gamma-BHC (Lindane)	3375960000	3339350000	3767250000	3460830000	4470850000	3682850000	13
Heptachlor	2922500000	2901690000	3325290000	3144100000	4093120000	3277340000	15
Heptachlor epoxide	2568680000	2575960000	2953630000	2835830000	3935020000	2973820000	19
Methoxychlor	907284000	922109000	1080370000	1020090000	1287130000	1043400000	15
Tetrachloro-m-xylene	2397870000	2402980000	2740040000	2595500000	3327420000	2692760000	14

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
Decachlorobiphenyl	3226690000	3193800000	3627020000	3320620000	4152210000	3504070000	11
Endrin	3607760000	3481170000	3870730000	3406140000	4097610000	3692680000	8
gamma-BHC (Lindane)	4713370000	4597010000	5084610000	4384810000	4926270000	4741210000	6
Heptachlor	4505180000	4413750000	4924840000	4345980000	5084220000	4654790000	7
Heptachlor epoxide	4026840000	3946880000	4424170000	3927960000	4575440000	4180260000	7
Methoxychlor	1651870000	1634200000	1870410000	1643810000	2140390000	1788140000	12
Tetrachloro-m-xylene	3101220000	3058550000	3437230000	3066200000	3657590000	3264160000	8

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Chlordane	500	1	4.70	4.60	4.80	110671000
		2	5.23	5.13	5.33	111822000
		3	5.94	5.84	6.04	367564000
		4	6.02	5.92	6.12	441167000
		5	6.87	6.77	6.97	84311800
Toxaphene	500	1	6.24	6.14	6.34	23446000
		2	6.44	6.34	6.54	14767200
		3	7.06	6.96	7.16	75896000
		4	7.15	7.05	7.25	57345100
		5	7.93	7.83	8.03	43067100

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Chlordane	500	1	3.77	3.67	3.87	122213000
		2	4.35	4.25	4.45	140610000
		3	4.98	4.88	5.08	427882000
		4	5.04	4.94	5.14	412254000
		5	5.94	5.84	6.04	148711000
Toxaphene	500	1	5.00	4.90	5.10	27057100
		2	5.33	5.23	5.43	23947200
		3	5.68	5.58	5.78	24726400
		4	6.60	6.50	6.70	84987200
		5	7.04	6.94	7.14	80238300

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 17:50 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.58	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 17:50 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094001.D **Time Analyzed:** 17:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.055	8.953	9.153	50.120	50.000	0.2
Endrin	6.575	6.472	6.672	53.310	50.000	6.6
gamma-BHC (Lindane)	4.328	4.227	4.427	53.780	50.000	7.6
Heptachlor	4.916	4.814	5.014	54.610	50.000	9.2
Heptachlor epoxide	5.684	5.582	5.782	51.770	50.000	3.5
Methoxychlor	7.501	7.398	7.598	56.300	50.000	12.6
Tetrachloro-m-xylene	3.540	3.439	3.639	52.880	50.000	5.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094001.D **Time Analyzed:** 17:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	52.420	50.000	4.8
Endrin	5.636	5.536	5.736	55.090	50.000	10.2
gamma-BHC (Lindane)	3.606	3.507	3.707	53.550	50.000	7.1
Heptachlor	3.944	3.845	4.045	53.700	50.000	7.4
Heptachlor epoxide	4.727	4.627	4.827	54.320	50.000	8.6
Methoxychlor	6.609	6.509	6.709	58.410	50.000	16.8
Tetrachloro-m-xylene	2.773	2.674	2.874	53.550	50.000	7.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 22:41 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 22:41 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094022.D **Time Analyzed:** 22:41

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.953	9.153	48.960	50.000	-2.1
Endrin	6.572	6.472	6.672	50.650	50.000	1.3
gamma-BHC (Lindane)	4.327	4.227	4.427	51.980	50.000	4.0
Heptachlor	4.915	4.814	5.014	51.640	50.000	3.3
Heptachlor epoxide	5.683	5.582	5.782	50.990	50.000	2.0
Methoxychlor	7.500	7.398	7.598	53.980	50.000	8.0
Tetrachloro-m-xylene	3.538	3.439	3.639	51.210	50.000	2.4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094022.D **Time Analyzed:** 22:41

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.910	7.810	8.010	53.520	50.000	7.0
Endrin	5.636	5.536	5.736	56.890	50.000	13.8
gamma-BHC (Lindane)	3.607	3.507	3.707	52.380	50.000	4.8
Heptachlor	3.945	3.845	4.045	51.290	50.000	2.6
Heptachlor epoxide	4.727	4.627	4.827	52.980	50.000	6.0
Methoxychlor	6.610	6.509	6.709	56.660	50.000	13.3
Tetrachloro-m-xylene	2.774	2.674	2.874	51.590	50.000	3.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 09:14 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 09:14 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 02/04/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094038.D **Time Analyzed:** 09:14

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.953	9.153	47.740	50.000	-4.5
Endrin	6.573	6.472	6.672	48.440	50.000	-3.1
gamma-BHC (Lindane)	4.328	4.227	4.427	51.900	50.000	3.8
Heptachlor	4.916	4.814	5.014	51.240	50.000	2.5
Heptachlor epoxide	5.684	5.582	5.782	50.560	50.000	1.1
Methoxychlor	7.500	7.398	7.598	48.720	50.000	-2.6
Tetrachloro-m-xylene	3.539	3.439	3.639	51.420	50.000	2.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 02/04/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094038.D **Time Analyzed:** 09:14

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.910	7.810	8.010	52.230	50.000	4.5
Endrin	5.636	5.536	5.736	53.510	50.000	7.0
gamma-BHC (Lindane)	3.607	3.507	3.707	52.640	50.000	5.3
Heptachlor	3.945	3.845	4.045	50.310	50.000	0.6
Heptachlor epoxide	4.727	4.627	4.827	52.780	50.000	5.6
Methoxychlor	6.609	6.509	6.709	48.950	50.000	-2.1
Tetrachloro-m-xylene	2.774	2.674	2.874	52.080	50.000	4.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 14:50 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 14:50 **Initial Calibration Time(s):** 10:57 11:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/04/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094052.D **Time Analyzed:** 14:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.055	8.953	9.153	45.130	50.000	-9.7
Endrin	6.572	6.472	6.672	44.960	50.000	-10.1
gamma-BHC (Lindane)	4.327	4.227	4.427	50.110	50.000	0.2
Heptachlor	4.915	4.814	5.014	47.450	50.000	-5.1
Heptachlor epoxide	5.683	5.582	5.782	48.530	50.000	-2.9
Methoxychlor	7.499	7.398	7.598	43.350	50.000	-13.3
Tetrachloro-m-xylene	3.538	3.439	3.639	50.380	50.000	0.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/04/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094052.D **Time Analyzed:** 14:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	43.570	50.000	-12.9
Endrin	5.636	5.536	5.736	50.920	50.000	1.8
gamma-BHC (Lindane)	3.606	3.507	3.707	52.180	50.000	4.4
Heptachlor	3.944	3.845	4.045	48.050	50.000	-3.9
Heptachlor epoxide	4.726	4.627	4.827	51.700	50.000	3.4
Methoxychlor	6.609	6.509	6.709	42.000	50.000	-16.0
Tetrachloro-m-xylene	2.774	2.674	2.874	52.500	50.000	5.0

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.052	8.950	9.150	18.070	20.000	-9.7
Tetrachloro-m-xylene	3.538	3.490	3.590	18.530	20.000	-7.4
alpha-BHC	3.994	3.940	4.040	9.490	10.000	-5.1
beta-BHC	4.525	4.470	4.580	9.790	10.000	-2.1
gamma-BHC (Lindane)	4.326	4.280	4.380	9.300	10.000	-7.0
Endrin	6.572	6.500	6.640	41.270	50.000	-17.5
4,4'-DDT	7.022	6.950	7.090	82.410	100.000	-17.6
Methoxychlor	7.498	7.430	7.570	190.380	250.000	-23.8

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	17.950	20.000	-10.3
Tetrachloro-m-xylene	2.775	2.720	2.830	17.900	20.000	-10.5
alpha-BHC	3.277	3.230	3.330	8.620	10.000	-13.8
beta-BHC	3.907	3.860	3.960	9.800	10.000	-2.0
gamma-BHC (Lindane)	3.607	3.560	3.660	8.300	10.000	-17.0
Endrin	5.636	5.570	5.710	42.700	50.000	-14.6
4,4'-DDT	6.034	5.960	6.100	96.510	100.000	-3.5
Methoxychlor	6.609	6.540	6.680	209.940	250.000	-16.0

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL094000.D **Date Analyzed:** 02/03/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 17:08

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.053	8.950	9.150	19.750	20.000	-1.3
Tetrachloro-m-xylene	3.538	3.490	3.590	21.100	20.000	5.5
alpha-BHC	3.993	3.940	4.040	11.200	10.000	12.0
beta-BHC	4.525	4.470	4.580	11.440	10.000	14.4
gamma-BHC (Lindane)	4.326	4.280	4.380	10.850	10.000	8.5
Endrin	6.571	6.500	6.640	44.210	50.000	-11.6
4,4'-DDT	7.022	6.950	7.090	97.410	100.000	-2.6
Methoxychlor	7.499	7.430	7.570	235.970	250.000	-5.6

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL094000.D **Date Analyzed:** 02/03/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 17:08

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	19.650	20.000	-1.8
Tetrachloro-m-xylene	2.774	2.720	2.820	19.890	20.000	-0.6
alpha-BHC	3.276	3.230	3.330	9.680	10.000	-3.2
beta-BHC	3.906	3.860	3.960	10.710	10.000	7.1
gamma-BHC (Lindane)	3.606	3.560	3.660	9.120	10.000	-8.8
Endrin	5.636	5.570	5.710	48.990	50.000	-2.0
4,4'-DDT	6.034	5.960	6.100	114.120	100.000	14.1
Methoxychlor	6.609	6.540	6.680	256.680	250.000	2.7

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL094037.D **Date Analyzed:** 02/04/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:00

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.057	8.960	9.160	20.890	20.000	4.5
Tetrachloro-m-xylene	3.539	3.490	3.590	22.330	20.000	11.7
alpha-BHC	3.995	3.940	4.050	11.650	10.000	16.5
beta-BHC	4.526	4.480	4.580	11.780	10.000	17.8
gamma-BHC (Lindane)	4.327	4.280	4.380	11.270	10.000	12.7
Endrin	6.574	6.500	6.640	46.750	50.000	-6.5
4,4'-DDT	7.025	6.950	7.100	94.850	100.000	-5.2
Methoxychlor	7.502	7.430	7.570	219.360	250.000	-12.3

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL094037.D **Date Analyzed:** 02/04/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:00

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.911	7.810	8.010	22.030	20.000	10.2
Tetrachloro-m-xylene	2.774	2.720	2.820	21.750	20.000	8.8
alpha-BHC	3.276	3.230	3.330	10.410	10.000	4.1
beta-BHC	3.907	3.860	3.960	11.650	10.000	16.5
gamma-BHC (Lindane)	3.607	3.560	3.660	9.960	10.000	-0.4
Endrin	5.637	5.570	5.710	52.100	50.000	4.2
4,4'-DDT	6.035	5.960	6.110	107.610	100.000	7.6
Methoxychlor	6.610	6.540	6.680	234.420	250.000	-6.2

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	9.05	3.54
PEM	PEM	01/21/2025	10:30	PL093726.D	9.05	3.54
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	9.05	3.54
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	9.05	3.54
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	9.05	3.54
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	9.05	3.54
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	9.05	3.54
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	9.05	3.54
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	9.05	3.54
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	9.05	3.54
I.BLK	I.BLK	02/03/2025	16:55	PL093999.D	9.05	3.54
PEM	PEM	02/03/2025	17:08	PL094000.D	9.05	3.54
PSTDCCC050	PSTDCCC050	02/03/2025	17:50	PL094001.D	9.06	3.54
PB166484BL	PB166484BL	02/03/2025	19:36	PL094009.D	9.06	3.54
PB166423TB	PB166423TB	02/03/2025	20:02	PL094011.D	9.06	3.54
JPP-3.5-013025MS	Q1241-04MS	02/03/2025	20:29	PL094013.D	9.06	3.54
JPP-3.5-013025MSD	Q1241-04MSD	02/03/2025	20:42	PL094014.D	9.06	3.54
JPP-6.2-013025	Q1242-04	02/03/2025	21:48	PL094019.D	9.06	3.54
I.BLK	I.BLK	02/03/2025	22:02	PL094020.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/03/2025	22:41	PL094022.D	9.06	3.54
I.BLK	I.BLK	02/04/2025	08:47	PL094036.D	9.06	3.54
PEM	PEM	02/04/2025	09:00	PL094037.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/04/2025	09:14	PL094038.D	9.06	3.54
PB166484BS	PB166484BS	02/04/2025	11:53	PL094042.D	9.07	3.55
I.BLK	I.BLK	02/04/2025	14:37	PL094051.D	9.05	3.54
PSTDCCC050	PSTDCCC050	02/04/2025	14:50	PL094052.D	9.06	3.54

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	7.91	2.78
PEM	PEM	01/21/2025	10:30	PL093726.D	7.91	2.78
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	7.91	2.77
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	7.91	2.78
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	7.91	2.77
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	7.91	2.77
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	7.91	2.77
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	7.91	2.77
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	7.91	2.77
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	7.91	2.77
I.BLK	I.BLK	02/03/2025	16:55	PL093999.D	7.91	2.77
PEM	PEM	02/03/2025	17:08	PL094000.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/03/2025	17:50	PL094001.D	7.91	2.77
PB166484BL	PB166484BL	02/03/2025	19:36	PL094009.D	7.91	2.77
PB166423TB	PB166423TB	02/03/2025	20:02	PL094011.D	7.91	2.77
JPP-3.5-013025MS	Q1241-04MS	02/03/2025	20:29	PL094013.D	7.91	2.77
JPP-3.5-013025MSD	Q1241-04MSD	02/03/2025	20:42	PL094014.D	7.91	2.77
JPP-6.2-013025	Q1242-04	02/03/2025	21:48	PL094019.D	7.91	2.77
I.BLK	I.BLK	02/03/2025	22:02	PL094020.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/03/2025	22:41	PL094022.D	7.91	2.77
I.BLK	I.BLK	02/04/2025	08:47	PL094036.D	7.91	2.77
PEM	PEM	02/04/2025	09:00	PL094037.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/04/2025	09:14	PL094038.D	7.91	2.77
PB166484BS	PB166484BS	02/04/2025	11:53	PL094042.D	7.91	2.78
I.BLK	I.BLK	02/04/2025	14:37	PL094051.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/04/2025	14:50	PL094052.D	7.91	2.77

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-3.5-013025MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1241-04MS **Date(s) Analyzed:** 02/03/2025 02/03/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	5.60	3.5
	2	6.61	6.56	6.66	5.80	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	5.00	0
	2	3.61	3.56	3.66	5.00	
Heptachlor	1	4.92	4.87	4.97	5.30	3.8
	2	3.94	3.89	3.99	5.10	
Heptachlor epoxide	1	5.68	5.63	5.73	5.00	2
	2	4.73	4.68	4.78	5.10	
Endrin	1	6.57	6.52	6.62	5.20	7.4
	2	5.64	5.59	5.69	5.60	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-3.5-013025MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1241-04MSD **Date(s) Analyzed:** 02/03/2025 02/03/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	5.60	3.5
	2	6.61	6.56	6.66	5.80	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	5.10	2
	2	3.61	3.56	3.66	5.00	
Heptachlor	1	4.91	4.86	4.96	5.30	1.9
	2	3.95	3.90	4.00	5.20	
Heptachlor epoxide	1	5.68	5.63	5.73	5.00	2
	2	4.73	4.68	4.78	5.10	
Endrin	1	6.57	6.52	6.62	5.20	7.4
	2	5.64	5.59	5.69	5.60	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB166484BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: PB166484BS **Date(s) Analyzed:** 02/04/2025 02/04/2025

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR1 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.51	7.46	7.56	0.43	5.6
	2	6.61	6.56	6.66	0.40	
gamma-BHC (Lindane)	1	4.34	4.29	4.39	0.47	1.9
	2	3.61	3.56	3.66	0.48	
Heptachlor	1	4.92	4.87	4.97	0.48	1.4
	2	3.95	3.90	4.00	0.48	
Heptachlor epoxide	1	5.69	5.64	5.74	0.48	2.8
	2	4.73	4.68	4.78	0.49	
Endrin	1	6.58	6.53	6.63	0.44	8.2
	2	5.64	5.59	5.69	0.47	

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-01	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1242-03	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			PCB	8082A		01/31/25	02/01/25	
			Pesticide-TCL	8081B		01/31/25	01/31/25	
Q1242-03RE	**JPP-6.2-013025RE**	**SOIL**			**01/30/25**			**01/30/25**
			PCB	8082A		01/31/25	02/04/25	
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP Herbicide	8151A		02/03/25	02/03/25	
			TCLP Pesticide	8081B		02/03/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242 **Order ID:** Q1242

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: **0.000**

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	81.2 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109363.D	1	01/31/25 08:15	02/01/25 04:30	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	20.9	U	4.20	20.9	ug/kg
11104-28-2	Aroclor-1221	20.9	U	7.90	20.9	ug/kg
11141-16-5	Aroclor-1232	20.9	U	4.20	20.9	ug/kg
53469-21-9	Aroclor-1242	20.9	U	4.20	20.9	ug/kg
12672-29-6	Aroclor-1248	20.9	U	9.70	20.9	ug/kg
11097-69-1	Aroclor-1254	20.9	U	3.40	20.9	ug/kg
37324-23-5	Aroclor-1262	20.9	U	5.60	20.9	ug/kg
11100-14-4	Aroclor-1268	20.9	U	4.20	20.9	ug/kg
11096-82-5	Aroclor-1260	20.9	U	3.60	20.9	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.1		32 - 144	100%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.1		32 - 175	65%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025RE	SDG No.:	Q1242
Lab Sample ID:	Q1242-03RE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	81.2 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109421.D	1	01/31/25 08:15	02/04/25 13:25	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	20.9	U	4.20	20.9	ug/kg
11104-28-2	Aroclor-1221	20.9	U	7.90	20.9	ug/kg
11141-16-5	Aroclor-1232	20.9	U	4.20	20.9	ug/kg
53469-21-9	Aroclor-1242	20.9	U	4.20	20.9	ug/kg
12672-29-6	Aroclor-1248	20.9	U	9.70	20.9	ug/kg
11097-69-1	Aroclor-1254	20.9	U	3.40	20.9	ug/kg
37324-23-5	Aroclor-1262	20.9	U	5.60	20.9	ug/kg
11100-14-4	Aroclor-1268	20.9	U	4.20	20.9	ug/kg
11096-82-5	Aroclor-1260	20.9	U	3.60	20.9	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	18.6		32 - 144	93%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.4		32 - 175	72%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

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Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PO108981.D	PIBLK-PO108981.D	Tetrachloro-m-xylene	1	20	21.9	109		60	140
		Decachlorobiphenyl	1	20	21.6	108		60	140
		Tetrachloro-m-xylene	2	20	20.6	103		60	140
		Decachlorobiphenyl	2	20	21.9	109		60	140
I.BLK-PO109321.D	PIBLK-PO109321.D	Tetrachloro-m-xylene	1	20	20.3	102		60	140
		Decachlorobiphenyl	1	20	17.8	89		60	140
		Tetrachloro-m-xylene	2	20	19.1	95		60	140
		Decachlorobiphenyl	2	20	17.8	89		60	140
PB166412BL	PB166412BL	Tetrachloro-m-xylene	1	20	24.1	120		32	144
		Decachlorobiphenyl	1	20	21.0	105		32	175
		Tetrachloro-m-xylene	2	20	22.7	114		32	144
		Decachlorobiphenyl	2	20	21.0	105		32	175
PB166412BS	PB166412BS	Tetrachloro-m-xylene	1	20	23.1	116		32	144
		Decachlorobiphenyl	1	20	21.8	109		32	175
		Tetrachloro-m-xylene	2	20	22.0	110		32	144
		Decachlorobiphenyl	2	20	21.4	107		32	175
I.BLK-PO109335.D	PIBLK-PO109335.D	Tetrachloro-m-xylene	1	20	20.1	101		60	140
		Decachlorobiphenyl	1	20	16.1	81		60	140
		Tetrachloro-m-xylene	2	20	19.7	99		60	140
		Decachlorobiphenyl	2	20	17.1	86		60	140
I.BLK-PO109348.D	PIBLK-PO109348.D	Tetrachloro-m-xylene	1	20	20.2	101		60	140
		Decachlorobiphenyl	1	20	17.1	85		60	140
		Tetrachloro-m-xylene	2	20	19.8	99		60	140
		Decachlorobiphenyl	2	20	17.5	88		60	140
Q1232-03MS	JPP-46.2-012925MS	Tetrachloro-m-xylene	1	20	22.5	112		32	144
		Decachlorobiphenyl	1	20	18.5	93		32	175
		Tetrachloro-m-xylene	2	20	22.2	111		32	144
		Decachlorobiphenyl	2	20	19.9	100		32	175
Q1232-03MSD	JPP-46.2-012925MSD	Tetrachloro-m-xylene	1	20	22.3	112		32	144
		Decachlorobiphenyl	1	20	18.4	92		32	175
		Tetrachloro-m-xylene	2	20	22.2	111		32	144
		Decachlorobiphenyl	2	20	20.0	100		32	175
Q1242-03	JPP-6.2-013025	Tetrachloro-m-xylene	1	20	19.9	100		32	144
		Decachlorobiphenyl	1	20	12.1	61		32	175
		Tetrachloro-m-xylene	2	20	20.1	100		32	144
		Decachlorobiphenyl	2	20	13.1	65		32	175
I.BLK-PO109365.D	PIBLK-PO109365.D	Tetrachloro-m-xylene	1	20	19.8	99		60	140
		Decachlorobiphenyl	1	20	13.4	67		60	140
		Tetrachloro-m-xylene	2	20	19.9	100		60	140
		Decachlorobiphenyl	2	20	15.1	75		60	140
I.BLK-PO109369.D	PIBLK-PO109369.D	Tetrachloro-m-xylene	1	20	20.8	104		60	140

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Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PO109369.D	PIBLK-PO109369.D	Decachlorobiphenyl	1	20	21.4	107		60	140
		Tetrachloro-m-xylene	2	20	20.1	101		60	140
		Decachlorobiphenyl	2	20	21.6	108		60	140
I.BLK-PO109406.D	PIBLK-PO109406.D	Tetrachloro-m-xylene	1	20	22.7	114		60	140
		Decachlorobiphenyl	1	20	23.0	115		60	140
		Tetrachloro-m-xylene	2	20	21.0	105		60	140
		Decachlorobiphenyl	2	20	24.1	121		60	140
Q1232-03MSRE	JPP-46.2-012925MSRE	Tetrachloro-m-xylene	1	20	21.0	105		32	144
		Decachlorobiphenyl	1	20	21.1	105		32	175
		Tetrachloro-m-xylene	2	20	20.4	102		32	144
		Decachlorobiphenyl	2	20	22.9	114		32	175
Q1232-03MSDRE	JPP-46.2-012925MSDRE	Tetrachloro-m-xylene	1	20	20.8	104		32	144
		Decachlorobiphenyl	1	20	20.5	102		32	175
		Tetrachloro-m-xylene	2	20	20.4	102		32	144
		Decachlorobiphenyl	2	20	22.8	114		32	175
Q1242-03RE	JPP-6.2-013025RE	Tetrachloro-m-xylene	1	20	18.6	93		32	144
		Decachlorobiphenyl	1	20	13.3	67		32	175
		Tetrachloro-m-xylene	2	20	18.4	92		32	144
		Decachlorobiphenyl	2	20	14.4	72		32	175
I.BLK-PO109423.D	PIBLK-PO109423.D	Tetrachloro-m-xylene	1	20	22.1	111		60	140
		Decachlorobiphenyl	1	20	15.5	78		60	140
		Tetrachloro-m-xylene	2	20	21.1	105		60	140
		Decachlorobiphenyl	2	20	17.8	89		60	140

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109350.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-46.2-012925MS**											
Q1232-03MS	AR1016	186.5	0	185	ug/kg	99				55	146	
	AR1260	186.5	0	175	ug/kg	94				45	144	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109351.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-46.2-012925MSD**											
Q1232-03MSD	AR1016	186.5	0	183	ug/kg	98		1		55	146	20
	AR1260	186.5	0	173	ug/kg	93		1		45	144	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109408.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-46.2-012925MSRE**											
Q1232-03MSRE	AR1016	186.5	0	170	ug/kg	91				55	146	
	AR1260	186.5	0	170	ug/kg	91				45	144	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109409.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-46.2-012925MSDRE**											
Q1232-03MSDRE	AR1016	186.5	0	167	ug/kg	90		1		55	146	20
	AR1260	186.5	0	167	ug/kg	90		1		45	144	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8082A **Datafile :** PO109324.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166412BS	AR1016	166.5	162	ug/kg	97				71	120	
	AR1260	166.5	149	ug/kg	89				65	130	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166412BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab Sample ID: PB166412BL Lab File ID: PO109323.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 01/31/2025

Date Analyzed (1): 01/31/2025 Date Analyzed (2): 01/31/2025

Time Analyzed (1): 11:35 Time Analyzed (2): 11:35

Instrument ID (1): ECD_O Instrument ID (2): ECD_O

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166412BS	PB166412BS	PO109324.D	01/31/2025	01/31/2025
JPP-46.2-012925MS	Q1232-03MS	PO109350.D	02/01/2025	02/01/2025
JPP-46.2-012925MSD	Q1232-03MSD	PO109351.D	02/01/2025	02/01/2025
JPP-6.2-013025	Q1242-03	PO109363.D	02/01/2025	02/01/2025
JPP-46.2-012925MSRE	Q1232-03MSRE	PO109408.D	02/04/2025	02/04/2025
JPP-46.2-012925MSDRE	Q1232-03MSDRE	PO109409.D	02/04/2025	02/04/2025

COMMENTS:

CALIBRATION SUMMARY

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO108982.D RT 750 = PO108983.D

RT 500 = PO108984.D RT 250 = PO108985.D RT 050 = PO108986.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.79	4.79	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1016-2	(2)	4.81	4.82	4.81	4.81	4.81	4.81	4.71	4.91
Aroclor-1016-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1016-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1016-5	(5)	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Aroclor-1260-1	(1)	6.29	6.29	6.29	6.29	6.29	6.29	6.19	6.39
Aroclor-1260-2	(2)	6.48	6.48	6.48	6.48	6.48	6.48	6.38	6.58
Aroclor-1260-3	(3)	6.85	6.85	6.85	6.85	6.85	6.85	6.75	6.95
Aroclor-1260-4	(4)	7.11	7.11	7.11	7.11	7.11	7.11	7.01	7.21
Aroclor-1260-5	(5)	7.35	7.35	7.35	7.35	7.35	7.35	7.25	7.45
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.80	4.80	4.80	4.80	4.79	4.80	4.70	4.90
Aroclor-1242-2	(2)	4.82	4.82	4.82	4.82	4.81	4.82	4.72	4.92
Aroclor-1242-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1242-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1242-5	(5)	5.65	5.65	5.65	5.65	5.64	5.65	5.55	5.75
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.80	4.79	4.79	4.80	4.80	4.80	4.70	4.90
Aroclor-1248-2	(2)	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Aroclor-1248-3	(3)	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Aroclor-1248-4	(4)	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Aroclor-1248-5	(5)	5.65	5.65	5.65	5.65	5.65	5.65	5.55	5.75
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1254-1	(1)	5.60	5.61	5.60	5.61	5.60	5.60	5.50	5.70
Aroclor-1254-2	(2)	5.75	5.75	5.75	5.75	5.75	5.75	5.65	5.85
Aroclor-1254-3	(3)	6.16	6.16	6.16	6.16	6.16	6.16	6.06	6.26
Aroclor-1254-4	(4)	6.39	6.39	6.39	6.39	6.39	6.39	6.29	6.49
Aroclor-1254-5	(5)	6.81	6.81	6.81	6.81	6.81	6.81	6.71	6.91
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.63	7.64	7.64	7.64	7.64	7.64	7.54	7.74
Aroclor-1268-2	(2)	7.70	7.70	7.70	7.70	7.70	7.70	7.60	7.80
Aroclor-1268-3	(3)	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
Aroclor-1268-4	(4)	8.20	8.20	8.20	8.20	8.20	8.20	8.10	8.30
Aroclor-1268-5	(5)	8.50	8.50	8.50	8.50	8.50	8.50	8.40	8.60

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO108982.D RT 750 = PO108983.D

RT 500 = PO108984.D RT 250 = PO108985.D RT 050 = PO108986.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.78	4.78	4.80	4.78	4.78	4.79	4.69	4.89
Aroclor-1016-2	(2)	4.80	4.80	4.82	4.80	4.80	4.81	4.71	4.91
Aroclor-1016-3	(3)	4.98	4.98	5.00	4.98	4.98	4.98	4.88	5.08
Aroclor-1016-4	(4)	5.02	5.02	5.04	5.02	5.02	5.02	4.92	5.12
Aroclor-1016-5	(5)	5.23	5.23	5.25	5.23	5.23	5.24	5.14	5.34
Aroclor-1260-1	(1)	6.27	6.27	6.29	6.27	6.26	6.27	6.17	6.37
Aroclor-1260-2	(2)	6.45	6.45	6.47	6.45	6.45	6.46	6.36	6.56
Aroclor-1260-3	(3)	6.61	6.61	6.63	6.61	6.61	6.61	6.51	6.71
Aroclor-1260-4	(4)	7.08	7.08	7.10	7.08	7.08	7.08	6.98	7.18
Aroclor-1260-5	(5)	7.32	7.32	7.34	7.32	7.32	7.32	7.22	7.42
Decachlorobiphenyl		8.71	8.71	8.73	8.71	8.71	8.72	8.62	8.82
Tetrachloro-m-xylene		3.70	3.70	3.72	3.70	3.70	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1242-2	(2)	4.80	4.80	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1242-3	(3)	4.98	4.98	4.98	4.98	4.98	4.98	4.88	5.08
Aroclor-1242-4	(4)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1242-5	(5)	5.58	5.58	5.58	5.58	5.58	5.58	5.48	5.68
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1248-2	(2)	5.02	5.02	5.02	5.02	5.02	5.02	4.92	5.12
Aroclor-1248-3	(3)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1248-4	(4)	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
Aroclor-1248-5	(5)	5.62	5.62	5.62	5.63	5.62	5.62	5.52	5.72
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1254-1	(1)	5.58	5.58	5.58	5.59	5.58	5.58	5.48	5.68
Aroclor-1254-2	(2)	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
Aroclor-1254-3	(3)	6.13	6.14	6.13	6.14	6.13	6.14	6.04	6.24
Aroclor-1254-4	(4)	6.36	6.36	6.36	6.36	6.36	6.36	6.26	6.46
Aroclor-1254-5	(5)	6.78	6.78	6.78	6.78	6.78	6.78	6.68	6.88
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.60	7.60	7.60	7.60	7.60	7.60	7.50	7.70
Aroclor-1268-2	(2)	7.67	7.67	7.67	7.67	7.66	7.67	7.57	7.77
Aroclor-1268-3	(3)	7.87	7.87	7.87	7.88	7.87	7.87	7.77	7.97
Aroclor-1268-4	(4)	8.16	8.16	8.16	8.16	8.16	8.16	8.06	8.26
Aroclor-1268-5	(5)	8.45	8.45	8.45	8.45	8.45	8.45	8.35	8.55

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: **CF 1000 =** PO108982.D **CF 750 =** PO108983.D

CF 500 = PO108984.D **CF 250 =** PO108985.D **CF 050 =** PO108986.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	233065045	244410019	248250902	263810212	271896440	252286524	6
Aroclor-1016-2	(2)	325363679	338972765	344308556	357996712	357782160	344884774	4
Aroclor-1016-3	(3)	223049536	234801713	240773660	257313424	264644780	244116623	7
Aroclor-1016-4	(4)	175974311	184579665	189100190	198987084	205504880	190829226	6
Aroclor-1016-5	(5)	190134930	199311205	207066494	222947156	224348000	208761557	7
Aroclor-1260-1	(1)	348800771	364882765	375462458	399932624	416699380	381155600	7
Aroclor-1260-2	(2)	430525248	448276513	461774946	488220872	519105560	469580628	7
Aroclor-1260-3	(3)	359859412	378331397	386511394	408169100	424938760	391562013	7
Aroclor-1260-4	(4)	332481764	347292652	354683668	372951676	382377400	357957432	6
Aroclor-1260-5	(5)	803151986	830038244	833771178	853559688	852457760	834595771	2
Decachlorobiphenyl		6434348190	6661231787	6830111140	7188416880	7524624800	6927746559	6
Tetrachloro-m-xylene		7601276640	7501278947	7481675880	7644109480	7553803600	7556428909	1
Aroclor-1242-1	(1)	195196952	201389908	214304986	226003920	225308640	212440881	7
Aroclor-1242-2	(2)	268098195	278641713	289244872	304071824	293574460	286726213	5
Aroclor-1242-3	(3)	186201466	194711956	206440658	220830688	215362160	204709386	7
Aroclor-1242-4	(4)	146339247	152438169	160415562	170237596	164916200	158869355	6
Aroclor-1242-5	(5)	154300112	158580243	167963632	178401740	175909460	167031037	6
Decachlorobiphenyl		6093757170	6273163067	6555969800	6873050240	6988220200	6556832095	6
Tetrachloro-m-xylene		7302831450	7496516067	7696349800	7451780120	6586958200	7306887127	6
Aroclor-1248-1	(1)	145246997	150453889	157781164	170519664	173855120	159571367	8
Aroclor-1248-2	(2)	197265768	209686637	218963792	239048120	252482700	223489403	10
Aroclor-1248-3	(3)	248188978	257855635	270690240	293270108	299294900	273859972	8
Aroclor-1248-4	(4)	351583188	362624208	379215116	402583304	426725120	384546187	8
Aroclor-1248-5	(5)	245666962	251879323	262640736	279614828	288543680	265669106	7
Decachlorobiphenyl		6072639940	6272001520	6560139460	6944778840	7129210800	6595754112	7
Tetrachloro-m-xylene		7184593920	7370395840	7484351680	7653720840	7312573400	7401127136	2
Aroclor-1254-1	(1)	374847163	389452248	410697836	433454068	459205320	413531327	8
Aroclor-1254-2	(2)	325342531	339278107	358066768	381289080	405152620	361825821	9
Aroclor-1254-3	(3)	522141746	540493293	562618572	587400960	607950820	564121078	6
Aroclor-1254-4	(4)	328382284	332039301	348673262	361037032	352970440	344620464	4
Aroclor-1254-5	(5)	475331089	489980032	515035558	537655848	547482260	513096957	6
Decachlorobiphenyl		6154630290	6360969147	6655043100	6960677720	7204237800	6667111611	6
Tetrachloro-m-xylene		7266635340	7453080907	7677404800	7686251640	7337350200	7484144577	3
Aroclor-1268-1	(1)	1033690630	1036942464	1067670602	1080273708	1104982020	1064711885	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	952087675	951155156	979561020	979388044	983362060	969110791	2
Aroclor-1268-3	(3)	786406202	784932265	807859298	814292396	834332900	805564612	3
Aroclor-1268-4	(4)	327369336	328395845	341390382	351699060	363994160	342569757	5
Aroclor-1268-5	(5)	2419252053	2385425329	2430042174	2398845144	2323360200	2391384980	2
Decachlorobiphenyl		11036128070	11026162653	11389192500	11664983320	12135593800	11450412069	4
Tetrachloro-m-xylene		7546638300	7604080347	7812040940	7844017680	7509481400	7663251733	2

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: **CF 1000 =** PO108982.D **CF 750 =** PO108983.D

CF 500 = PO108984.D **CF 250 =** PO108985.D **CF 050 =** PO108986.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	145518803	142573049	166649690	172900172	181948120	161917967	11
Aroclor-1016-2	(2)	223129267	236622256	232122136	250011316	249296120	238236219	5
Aroclor-1016-3	(3)	121270732	126119179	128693642	138175620	137629920	130377819	6
Aroclor-1016-4	(4)	98703058	105288716	109289440	120650588	118660940	110518548	8
Aroclor-1016-5	(5)	130939362	136319948	141694888	155164716	153595760	143542935	7
Aroclor-1260-1	(1)	229857010	239931019	247217984	265407312	277830920	252048849	8
Aroclor-1260-2	(2)	274616892	283537992	291890314	314812824	339164440	300804492	9
Aroclor-1260-3	(3)	255547157	264550967	272530098	288370904	310931080	278386041	8
Aroclor-1260-4	(4)	210034482	216033343	222462830	233977972	245747280	225651181	6
Aroclor-1260-5	(5)	481178354	492665984	499979908	514637484	514938920	500680130	3
Decachlorobiphenyl		3156544800	3289680693	3391332080	3623383520	3732817400	3438751699	7
Tetrachloro-m-xylene		5315746230	5437498093	5428207440	5462079080	5158066000	5360319369	2
Aroclor-1242-1	(1)	130294727	135534199	142873858	151389892	154466220	142911779	7
Aroclor-1242-2	(2)	183791222	188978371	198913930	207089908	207312700	197217226	5
Aroclor-1242-3	(3)	100083291	104057155	110676450	116018292	114379700	109042978	6
Aroclor-1242-4	(4)	101694040	106737525	114342192	123447428	121997980	113643833	8
Aroclor-1242-5	(5)	124175329	128045065	135895568	145256248	150561360	136786714	8
Decachlorobiphenyl		2975923130	3104041173	3249737920	3444762080	3552503800	3265393621	7
Tetrachloro-m-xylene		5146305370	5269389160	5422425040	5452266880	4942424000	5246562090	4
Aroclor-1248-1	(1)	97508588	101198119	106540372	114549420	116802080	107319716	8
Aroclor-1248-2	(2)	135954819	143343636	151605960	164947764	174030220	153976480	10
Aroclor-1248-3	(3)	145968318	152945292	161442194	176334456	190180940	165374240	11
Aroclor-1248-4	(4)	171715835	178859555	187881420	202639424	216432800	191505807	9
Aroclor-1248-5	(5)	167823607	172638881	180053168	192035492	203508660	183211962	8
Decachlorobiphenyl		3009595400	3126029333	3260555920	3479534800	3551272200	3285397531	7
Tetrachloro-m-xylene		5072748910	5224226253	5283938200	5402921120	5021628000	5201092497	3
Aroclor-1254-1	(1)	253547823	264686405	278940988	295164372	313075680	281083054	8
Aroclor-1254-2	(2)	223099297	232757513	247383274	262896088	285176280	250262490	10
Aroclor-1254-3	(3)	362340991	375750797	393412880	409817176	422789620	392822293	6
Aroclor-1254-4	(4)	207964031	212728924	222445680	231289600	227332320	220352111	4
Aroclor-1254-5	(5)	302636627	313319767	329146572	343115096	345356740	326714960	6
Decachlorobiphenyl		3009418030	3125275440	3274408080	3481058080	3592269800	3296485886	7
Tetrachloro-m-xylene		5157782560	5318511973	5462257400	5454366480	5168021000	5312187883	3
Aroclor-1268-1	(1)	605633372	613614913	625929052	644237020	658094440	629501759	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	555793036	560357999	571244564	587032548	581198500	571125329	2
Aroclor-1268-3	(3)	443116844	448542784	458393734	471576124	481232120	460572321	3
Aroclor-1268-4	(4)	171795401	175640587	181667170	188528320	184928840	180512064	4
Aroclor-1268-5	(5)	1182764439	1191499568	1205466938	1214359780	1189190120	1196656169	1
Decachlorobiphenyl		5296716160	5425177360	5590471540	5802552800	5997123200	5622408212	5
Tetrachloro-m-xylene		5377448880	5418716973	5531134800	5564772080	5234786600	5425371867	2

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Date(s) Analyzed:** 01/21/2025 01/22/2025

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	100101000
		2	4.00	3.90	4.10	74407200
		3	4.08	3.98	4.18	208014000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.08	3.98	4.18	165122000
		2	4.57	4.47	4.67	90981600
		3	4.81	4.71	4.91	160152000
		4	4.99	4.89	5.09	88001400
		5	5.03	4.93	5.13	64818200
Aroclor-1262	500	1	6.85	6.75	6.95	534016000
		2	7.35	7.25	7.45	919466000
		3	7.64	7.54	7.74	364572000
		4	7.70	7.60	7.80	687626000
		5	8.20	8.10	8.30	302118000

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Date(s) Analyzed:** 01/21/2025 01/22/2025

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	65489800
		2	4.00	3.90	4.10	49387600
		3	4.07	3.97	4.17	145160000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.07	3.97	4.17	115508000
		2	4.80	4.70	4.90	108913000
		3	4.98	4.88	5.08	59967000
		4	5.06	4.96	5.16	57262000
		5	5.23	5.13	5.33	60672000
Aroclor-1262	500	1	6.82	6.72	6.92	340358000
		2	7.32	7.22	7.42	554604000
		3	7.60	7.50	7.70	214440000
		4	7.67	7.57	7.77	391888000
		5	8.16	8.06	8.26	159461000

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Calibration Date(s):** 02/03/2025 02/04/2025

Calibration Times: 18:17 02:30

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO109370.D RT 750 = PO109371.D

RT 500 = PO109372.D RT 250 = PO109373.D RT 050 = PO109374.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.79	4.79	4.79	4.79	4.79	4.79	4.69	4.89
Aroclor-1016-2	(2)	4.81	4.81	4.81	4.81	4.81	4.81	4.71	4.91
Aroclor-1016-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1016-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1016-5	(5)	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Aroclor-1260-1	(1)	6.29	6.29	6.29	6.29	6.29	6.29	6.19	6.39
Aroclor-1260-2	(2)	6.48	6.48	6.48	6.48	6.48	6.48	6.38	6.58
Aroclor-1260-3	(3)	6.85	6.85	6.85	6.85	6.85	6.85	6.75	6.95
Aroclor-1260-4	(4)	7.11	7.11	7.11	7.11	7.11	7.11	7.01	7.21
Aroclor-1260-5	(5)	7.35	7.35	7.35	7.35	7.35	7.35	7.25	7.45
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.79	4.79	4.79	4.79	4.79	4.79	4.69	4.89
Aroclor-1242-2	(2)	4.81	4.81	4.81	4.81	4.81	4.81	4.71	4.91
Aroclor-1242-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1242-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1242-5	(5)	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.79	4.79	4.79	4.79	4.79	4.79	4.69	4.89
Aroclor-1248-2	(2)	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Aroclor-1248-3	(3)	5.25	5.25	5.24	5.25	5.25	5.25	5.15	5.35
Aroclor-1248-4	(4)	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Aroclor-1248-5	(5)	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1254-1	(1)	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Aroclor-1254-2	(2)	5.75	5.75	5.75	5.75	5.75	5.75	5.65	5.85
Aroclor-1254-3	(3)	6.16	6.16	6.16	6.16	6.16	6.16	6.06	6.26
Aroclor-1254-4	(4)	6.39	6.39	6.39	6.39	6.39	6.39	6.29	6.49
Aroclor-1254-5	(5)	6.81	6.81	6.81	6.81	6.81	6.81	6.71	6.91
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.64	7.64	7.64	7.63	7.64	7.64	7.54	7.74
Aroclor-1268-2	(2)	7.70	7.70	7.70	7.70	7.70	7.70	7.60	7.80
Aroclor-1268-3	(3)	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
Aroclor-1268-4	(4)	8.20	8.20	8.20	8.20	8.20	8.20	8.10	8.30
Aroclor-1268-5	(5)	8.50	8.50	8.50	8.50	8.50	8.50	8.40	8.60

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Calibration Date(s):** 02/03/2025 02/04/2025

Calibration Times: 18:17 02:30

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO109370.D RT 750 = PO109371.D

RT 500 = PO109372.D RT 250 = PO109373.D RT 050 = PO109374.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1016-2	(2)	4.80	4.80	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1016-3	(3)	4.98	4.97	4.97	4.97	4.97	4.97	4.87	5.07
Aroclor-1016-4	(4)	5.02	5.02	5.02	5.02	5.02	5.02	4.92	5.12
Aroclor-1016-5	(5)	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
Aroclor-1260-1	(1)	6.26	6.26	6.26	6.26	6.26	6.26	6.16	6.36
Aroclor-1260-2	(2)	6.45	6.45	6.45	6.45	6.45	6.45	6.35	6.55
Aroclor-1260-3	(3)	6.60	6.60	6.60	6.60	6.60	6.60	6.50	6.70
Aroclor-1260-4	(4)	7.08	7.08	7.07	7.08	7.07	7.08	6.98	7.18
Aroclor-1260-5	(5)	7.32	7.32	7.31	7.32	7.31	7.32	7.22	7.42
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.69	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1242-2	(2)	4.80	4.80	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1242-3	(3)	4.98	4.97	4.97	4.97	4.97	4.97	4.87	5.07
Aroclor-1242-4	(4)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1242-5	(5)	5.58	5.58	5.58	5.58	5.58	5.58	5.48	5.68
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.69	3.69	3.69	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1248-2	(2)	5.02	5.02	5.02	5.02	5.02	5.02	4.92	5.12
Aroclor-1248-3	(3)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1248-4	(4)	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
Aroclor-1248-5	(5)	5.62	5.62	5.62	5.62	5.62	5.62	5.52	5.72
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.69	3.69	3.69	3.69	3.69	3.69	3.59	3.79
Aroclor-1254-1	(1)	5.58	5.58	5.58	5.58	5.58	5.58	5.48	5.68
Aroclor-1254-2	(2)	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
Aroclor-1254-3	(3)	6.13	6.13	6.13	6.13	6.13	6.13	6.03	6.23
Aroclor-1254-4	(4)	6.36	6.36	6.36	6.36	6.36	6.36	6.26	6.46
Aroclor-1254-5	(5)	6.78	6.78	6.78	6.78	6.78	6.78	6.68	6.88
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.69	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.60	7.60	7.60	7.60	7.60	7.60	7.50	7.70
Aroclor-1268-2	(2)	7.67	7.67	7.66	7.66	7.66	7.66	7.56	7.76
Aroclor-1268-3	(3)	7.87	7.87	7.87	7.87	7.87	7.87	7.77	7.97
Aroclor-1268-4	(4)	8.16	8.16	8.16	8.16	8.16	8.16	8.06	8.26
Aroclor-1268-5	(5)	8.45	8.45	8.45	8.45	8.45	8.45	8.35	8.55

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.69	3.70	3.60	3.80

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Calibration Date(s):** 02/03/2025 02/04/2025

Calibration Times: 18:17 02:30

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PO109370.D CF 750 = PO109371.D

CF 500 = PO109372.D CF 250 = PO109373.D CF 050 = PO109374.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	235317786	240387277	252616446	270730944	277374780	255285447	7
Aroclor-1016-2	(2)	317456650	333812187	341175896	359252668	360710180	342481516	5
Aroclor-1016-3	(3)	222362207	229514455	240138458	257895316	262445680	242471223	7
Aroclor-1016-4	(4)	177068080	182121103	189950302	202822896	208610740	192114624	7
Aroclor-1016-5	(5)	188235094	193849961	202793534	220495896	221464260	205367749	7
Aroclor-1260-1	(1)	342293090	352624020	366276234	392547596	412690840	373286356	8
Aroclor-1260-2	(2)	423470897	430072589	448025360	476511620	512643040	458144701	8
Aroclor-1260-3	(3)	353148761	363197761	373408456	401006340	424222880	382996840	8
Aroclor-1260-4	(4)	326685301	334799956	345585554	367152080	376870660	350218710	6
Aroclor-1260-5	(5)	776260672	789582677	809655652	839954564	862435840	815577881	4
Decachlorobiphenyl		6054948770	6170848653	6385471300	6759256200	7035652800	6481235545	6
Tetrachloro-m-xylene		7537789720	7637854440	7762340380	7614954320	7341391600	7578866092	2
Aroclor-1242-1	(1)	197334599	204940145	212220936	230084932	227421240	214400370	7
Aroclor-1242-2	(2)	265786510	278371144	287816958	305404188	295561060	286587972	5
Aroclor-1242-3	(3)	185058250	194571396	202706248	219955100	215411620	203540523	7
Aroclor-1242-4	(4)	146700154	154078684	158957240	170855512	171944280	160507174	7
Aroclor-1242-5	(5)	153223867	159773192	165198400	181134604	184818260	168829665	8
Decachlorobiphenyl		5647313730	5850539653	6047566620	6386728720	6474172400	6081264225	6
Tetrachloro-m-xylene		7256950730	7471164160	7603441480	7790630080	7409049200	7506247130	3
Aroclor-1248-1	(1)	146962778	151915439	162826108	170942184	170822880	160693878	7
Aroclor-1248-2	(2)	199227110	207000031	222476092	237749956	255259300	224342498	10
Aroclor-1248-3	(3)	247483851	255500071	274857826	289200096	301995900	273807549	8
Aroclor-1248-4	(4)	352065611	361039059	382944132	400046444	414632680	382145585	7
Aroclor-1248-5	(5)	247656524	252385875	269070708	280954660	286070540	267227661	6
Decachlorobiphenyl		5609834240	5759565067	6027167560	6251093240	6308340800	5991200181	5
Tetrachloro-m-xylene		7204476060	7307013053	7583233240	7674308840	7202293800	7394264999	3
Aroclor-1254-1	(1)	389077966	394823324	411471450	435522448	465269420	419232922	8
Aroclor-1254-2	(2)	339809413	345654540	362716334	386275232	432365500	373364204	10
Aroclor-1254-3	(3)	560442568	567643307	589401626	614138652	657432700	597811771	7
Aroclor-1254-4	(4)	341037643	333768951	338607716	349872980	327782320	338213922	2
Aroclor-1254-5	(5)	489637976	493484969	513693524	532708460	530251720	511955330	4
Decachlorobiphenyl		5858870260	5885298800	6106847120	6350391840	6409478800	6122177364	4
Tetrachloro-m-xylene		7558480160	7569338440	7756963700	7879721960	7331379200	7619176692	3
Aroclor-1268-1	(1)	1060325183	1043050687	1065797526	1096750544	1040315180	1061247824	2

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	978377814	960952537	981985162	1008226020	943849700	974678247	2
Aroclor-1268-3	(3)	802971546	788973609	806486708	831416156	789167280	803803060	2
Aroclor-1268-4	(4)	317503517	316627091	334247174	358558444	384945380	342376321	9
Aroclor-1268-5	(5)	2278699068	2228567457	2261614568	2279048372	2049911940	2219568281	4
Decachlorobiphenyl		10306107350	10157126853	10447096540	10874980000	10427163200	10442494789	3
Tetrachloro-m-xylene		7845541500	7700418680	7908692460	8012095560	7236914800	7740732600	4

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Calibration Date(s):** 02/03/2025 02/04/2025

Calibration Times: 18:17 02:30

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PO109370.D CF 750 = PO109371.D

CF 500 = PO109372.D CF 250 = PO109373.D CF 050 = PO109374.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	153264943	158113879	164537820	175109820	188488020	167902896	8
Aroclor-1016-2	(2)	215030936	222535907	230791366	244561788	247372860	232058571	6
Aroclor-1016-3	(3)	117766190	120601281	126178226	135206824	140293280	128009160	7
Aroclor-1016-4	(4)	96826511	100706524	107134058	116795180	127492600	109790975	11
Aroclor-1016-5	(5)	128361625	131809323	138948806	150436768	151836120	140278528	8
Aroclor-1260-1	(1)	225807591	232124708	242393268	261236200	274037320	247119817	8
Aroclor-1260-2	(2)	269418607	275070071	287381706	308186452	320338600	292079087	7
Aroclor-1260-3	(3)	255727834	263061365	276236828	304521580	322477280	284404977	10
Aroclor-1260-4	(4)	202687973	207427676	215633844	229721196	245640420	220222222	8
Aroclor-1260-5	(5)	468691821	473960392	485910284	503467072	521629300	490731774	4
Decachlorobiphenyl		2869026620	2934686067	3081400200	3274572920	3421855800	3116308321	7
Tetrachloro-m-xylene		5213092940	5275876587	5368678560	5502731680	5343841400	5340844233	2
Aroclor-1242-1	(1)	128201947	133999579	140199986	151291416	151737820	141086150	7
Aroclor-1242-2	(2)	180116057	187990837	193950162	207443820	202594860	194419147	6
Aroclor-1242-3	(3)	98415916	102862087	106686518	114914080	114890880	107553896	7
Aroclor-1242-4	(4)	99499055	104564516	110212460	122453692	126942680	112734481	10
Aroclor-1242-5	(5)	120970385	126562719	132762996	145269744	140486480	133210465	7
Decachlorobiphenyl		2681588160	2805605107	2963333620	3194117160	3259185200	2980765849	8
Tetrachloro-m-xylene		5025574020	5171478640	5249343640	5411420520	4979995200	5167562404	3
Aroclor-1248-1	(1)	96991072	99650249	107360952	113149160	116291680	106688623	8
Aroclor-1248-2	(2)	134470113	139550641	150876132	162116232	173367240	152076072	11
Aroclor-1248-3	(3)	143621711	148800272	161120540	172009316	185838580	162278084	11
Aroclor-1248-4	(4)	169090611	174042627	187731984	198272620	205371660	186901900	8
Aroclor-1248-5	(5)	166537611	170537543	181997908	191074516	188929520	179815420	6
Decachlorobiphenyl		2758948620	2860350253	3062672360	3204082240	3305205400	3038251775	8
Tetrachloro-m-xylene		4985063440	5058850453	5283231640	5299839520	4943532600	5114103531	3
Aroclor-1254-1	(1)	258812283	261928736	275087630	291465840	309297220	279318342	8
Aroclor-1254-2	(2)	226599173	230656979	242348974	260549028	289659560	249962743	10
Aroclor-1254-3	(3)	367155524	370663624	385253628	402077168	407098000	386449589	5
Aroclor-1254-4	(4)	211061915	207363419	212342790	220544016	190805140	208423456	5
Aroclor-1254-5	(5)	304600854	307888127	321851642	335906840	345186360	323086765	5
Decachlorobiphenyl		2911755880	3004200760	3167779400	3323943760	3409494800	3163434920	7
Tetrachloro-m-xylene		5244001860	5240433640	5374931480	5434663200	4985288000	5255863636	3
Aroclor-1268-1	(1)	590846797	581634948	597230514	624849832	608144640	600541346	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	542437119	532276172	548178670	571646760	539255300	546758804	3
Aroclor-1268-3	(3)	433110112	424724803	437297710	459430228	441635260	439239623	3
Aroclor-1268-4	(4)	170526494	166707964	173722334	184577088	170298900	173166556	4
Aroclor-1268-5	(5)	1166175763	1139506068	1161503202	1197064764	1120826220	1157015203	2
Decachlorobiphenyl		5215914320	5162812320	5395934040	5697518440	5550218000	5404479424	4
Tetrachloro-m-xylene		5450783370	5333541467	5490349720	5602153360	4795336800	5334432943	6

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Date(s) Analyzed:** 02/03/2025 02/04/2025

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	97534400
		2	4.00	3.90	4.10	73947200
		3	4.08	3.98	4.18	207362000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.07	3.97	4.17	165633000
		2	4.57	4.47	4.67	90172400
		3	4.81	4.71	4.91	159712000
		4	4.99	4.89	5.09	88931200
		5	5.03	4.93	5.13	64613800
Aroclor-1262	500	1	6.85	6.75	6.95	530972000
		2	7.35	7.25	7.45	920474000
		3	7.64	7.54	7.74	360214000
		4	7.70	7.60	7.80	671730000
		5	8.20	8.10	8.30	285950000

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_O **Date(s) Analyzed:** 02/03/2025 02/04/2025

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	65094400
		2	3.99	3.89	4.09	49658400
		3	4.07	3.97	4.17	146489000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.07	3.97	4.17	114709000
		2	4.80	4.70	4.90	107451000
		3	4.97	4.87	5.07	59119000
		4	5.06	4.96	5.16	56134200
		5	5.23	5.13	5.33	60079000
Aroclor-1262	500	1	6.82	6.72	6.92	330774000
		2	7.32	7.22	7.42	540530000
		3	7.60	7.50	7.70	218438000
		4	7.66	7.56	7.76	379560000
		5	8.16	8.06	8.26	155383000

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 09:16 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.80	4.70	4.90	0.01
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 09:16 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.97	5.00	4.90	5.10	0.03
Aroclor-1016-4	(4)	5.01	5.04	4.94	5.14	0.03
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.26	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.60	6.63	6.53	6.73	0.03
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.03
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.69	3.72	3.62	3.82	0.03
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109317.D **Time Analyzed:** 09:16

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.793	4.695	4.895	550.790	500.000	10.2
Aroclor-1016-2	4.813	4.714	4.914	550.890	500.000	10.2
Aroclor-1016-3	4.869	4.770	4.970	543.070	500.000	8.6
Aroclor-1016-4	4.990	4.891	5.091	548.160	500.000	9.6
Aroclor-1016-5	5.247	5.149	5.349	539.660	500.000	7.9
Aroclor-1260-1	6.290	6.190	6.390	523.710	500.000	4.7
Aroclor-1260-2	6.478	6.379	6.579	517.600	500.000	3.5
Aroclor-1260-3	6.847	6.747	6.947	511.430	500.000	2.3
Aroclor-1260-4	7.107	7.008	7.208	495.890	500.000	-0.8
Aroclor-1260-5	7.349	7.249	7.449	486.540	500.000	-2.7
Decachlorobiphenyl	8.759	8.658	8.858	45.000	50.000	-10.0
Tetrachloro-m-xylene	3.698	3.600	3.800	56.080	50.000	12.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109317.D **Time Analyzed:** 09:16

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.778	4.703	4.903	559.060	500.000	11.8
Aroclor-1016-2	4.797	4.722	4.922	502.860	500.000	0.6
Aroclor-1016-3	4.973	4.898	5.098	524.970	500.000	5.0
Aroclor-1016-4	5.014	4.940	5.140	518.430	500.000	3.7
Aroclor-1016-5	5.229	5.153	5.353	510.340	500.000	2.1
Aroclor-1260-1	6.262	6.186	6.386	502.170	500.000	0.4
Aroclor-1260-2	6.450	6.373	6.573	497.440	500.000	-0.5
Aroclor-1260-3	6.603	6.527	6.727	495.150	500.000	-1.0
Aroclor-1260-4	7.075	6.999	7.199	499.130	500.000	-0.2
Aroclor-1260-5	7.315	7.239	7.439	499.000	500.000	-0.2
Decachlorobiphenyl	8.709	8.633	8.833	44.120	50.000	-11.8
Tetrachloro-m-xylene	3.694	3.618	3.818	54.310	50.000	8.6

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 17:22 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.80	4.70	4.90	0.01
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 17:22 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.98	5.00	4.90	5.10	0.02
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.02
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.26	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.02
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.02
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109331.D **Time Analyzed:** 17:22

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.794	4.695	4.895	529.170	500.000	5.8
Aroclor-1016-2	4.814	4.714	4.914	527.480	500.000	5.5
Aroclor-1016-3	4.870	4.770	4.970	517.980	500.000	3.6
Aroclor-1016-4	4.991	4.891	5.091	521.800	500.000	4.4
Aroclor-1016-5	5.249	5.149	5.349	546.460	500.000	9.3
Aroclor-1260-1	6.291	6.190	6.390	448.550	500.000	-10.3
Aroclor-1260-2	6.479	6.379	6.579	456.840	500.000	-8.6
Aroclor-1260-3	6.848	6.747	6.947	472.180	500.000	-5.6
Aroclor-1260-4	7.108	7.008	7.208	435.580	500.000	-12.9
Aroclor-1260-5	7.350	7.249	7.449	423.730	500.000	-15.3
Decachlorobiphenyl	8.759	8.658	8.858	39.540	50.000	-20.9
Tetrachloro-m-xylene	3.699	3.600	3.800	53.070	50.000	6.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109331.D **Time Analyzed:** 17:22

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.780	4.703	4.903	573.010	500.000	14.6
Aroclor-1016-2	4.800	4.722	4.922	500.780	500.000	0.2
Aroclor-1016-3	4.976	4.898	5.098	538.260	500.000	7.7
Aroclor-1016-4	5.017	4.940	5.140	496.750	500.000	-0.7
Aroclor-1016-5	5.231	5.153	5.353	550.950	500.000	10.2
Aroclor-1260-1	6.264	6.186	6.386	483.980	500.000	-3.2
Aroclor-1260-2	6.452	6.373	6.573	475.980	500.000	-4.8
Aroclor-1260-3	6.606	6.527	6.727	473.890	500.000	-5.2
Aroclor-1260-4	7.077	6.999	7.199	438.870	500.000	-12.2
Aroclor-1260-5	7.318	7.239	7.439	441.630	500.000	-11.7
Decachlorobiphenyl	8.711	8.633	8.833	41.590	50.000	-16.8
Tetrachloro-m-xylene	3.697	3.618	3.818	54.770	50.000	9.5

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 22:43 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.80	4.70	4.90	0.01
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 01/31/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 22:43 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.98	5.00	4.90	5.10	0.03
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.02
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.26	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.02
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.02
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109344.D **Time Analyzed:** 22:43

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.792	4.695	4.895	531.740	500.000	6.3
Aroclor-1016-2	4.811	4.714	4.914	533.890	500.000	6.8
Aroclor-1016-3	4.867	4.770	4.970	522.950	500.000	4.6
Aroclor-1016-4	4.988	4.891	5.091	525.960	500.000	5.2
Aroclor-1016-5	5.246	5.149	5.349	557.920	500.000	11.6
Aroclor-1260-1	6.288	6.190	6.390	505.440	500.000	1.1
Aroclor-1260-2	6.477	6.379	6.579	501.420	500.000	0.3
Aroclor-1260-3	6.846	6.747	6.947	490.000	500.000	-2.0
Aroclor-1260-4	7.106	7.008	7.208	468.410	500.000	-6.3
Aroclor-1260-5	7.348	7.249	7.449	461.330	500.000	-7.7
Decachlorobiphenyl	8.757	8.658	8.858	42.570	50.000	-14.9
Tetrachloro-m-xylene	3.698	3.600	3.800	53.450	50.000	6.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/31/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109344.D **Time Analyzed:** 22:43

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.780	4.703	4.903	566.450	500.000	13.3
Aroclor-1016-2	4.799	4.722	4.922	503.230	500.000	0.6
Aroclor-1016-3	4.975	4.898	5.098	532.710	500.000	6.5
Aroclor-1016-4	5.016	4.940	5.140	473.450	500.000	-5.3
Aroclor-1016-5	5.230	5.153	5.353	541.140	500.000	8.2
Aroclor-1260-1	6.264	6.186	6.386	528.710	500.000	5.7
Aroclor-1260-2	6.451	6.373	6.573	516.160	500.000	3.2
Aroclor-1260-3	6.605	6.527	6.727	505.880	500.000	1.2
Aroclor-1260-4	7.076	6.999	7.199	502.910	500.000	0.6
Aroclor-1260-5	7.316	7.239	7.439	497.040	500.000	-0.6
Decachlorobiphenyl	8.710	8.633	8.833	43.440	50.000	-13.1
Tetrachloro-m-xylene	3.696	3.618	3.818	55.700	50.000	11.4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 06:43 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.80	4.70	4.90	0.01
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/01/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 06:43 **Initial Calibration Time(s):** 17:36 01:50

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.97	5.00	4.90	5.10	0.03
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.03
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.26	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.60	6.63	6.53	6.73	0.03
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.03
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.03
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/01/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109364.D **Time Analyzed:** 06:43

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.793	4.695	4.895	524.500	500.000	4.9
Aroclor-1016-2	4.812	4.714	4.914	530.300	500.000	6.1
Aroclor-1016-3	4.868	4.770	4.970	516.520	500.000	3.3
Aroclor-1016-4	4.989	4.891	5.091	516.180	500.000	3.2
Aroclor-1016-5	5.247	5.149	5.349	540.580	500.000	8.1
Aroclor-1260-1	6.289	6.190	6.390	422.370	500.000	-15.5
Aroclor-1260-2	6.478	6.379	6.579	408.310	500.000	-18.3
Aroclor-1260-3	6.847	6.747	6.947	379.480	500.000	-24.1
Aroclor-1260-4	7.107	7.008	7.208	388.000	500.000	-22.4
Aroclor-1260-5	7.348	7.249	7.449	382.060	500.000	-23.6
Decachlorobiphenyl	8.757	8.658	8.858	33.880	50.000	-32.2
Tetrachloro-m-xylene	3.698	3.600	3.800	53.260	50.000	6.5

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/01/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109364.D **Time Analyzed:** 06:43

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.778	4.703	4.903	566.230	500.000	13.2
Aroclor-1016-2	4.798	4.722	4.922	529.800	500.000	6.0
Aroclor-1016-3	4.973	4.898	5.098	549.850	500.000	10.0
Aroclor-1016-4	5.015	4.940	5.140	471.870	500.000	-5.6
Aroclor-1016-5	5.229	5.153	5.353	533.700	500.000	6.7
Aroclor-1260-1	6.262	6.186	6.386	485.550	500.000	-2.9
Aroclor-1260-2	6.450	6.373	6.573	458.810	500.000	-8.2
Aroclor-1260-3	6.604	6.527	6.727	431.070	500.000	-13.8
Aroclor-1260-4	7.075	6.999	7.199	405.070	500.000	-19.0
Aroclor-1260-5	7.316	7.239	7.439	399.550	500.000	-20.1
Decachlorobiphenyl	8.709	8.633	8.833	37.230	50.000	-25.5
Tetrachloro-m-xylene	3.695	3.618	3.818	55.990	50.000	12.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 02/03/2025 02/04/2025

Continuing Calib Time: 08:32 **Initial Calibration Time(s):** 18:17 02:30

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.79	4.69	4.89	0.00
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 02/03/2025 02/04/2025

Continuing Calib Time: 08:32 **Initial Calibration Time(s):** 18:17 02:30

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.78	4.68	4.88	0.00
Aroclor-1016-2	(2)	4.80	4.80	4.70	4.90	0.00
Aroclor-1016-3	(3)	4.97	4.97	4.87	5.07	0.00
Aroclor-1016-4	(4)	5.02	5.02	4.92	5.12	0.00
Aroclor-1016-5	(5)	5.23	5.23	5.13	5.33	0.00
Aroclor-1260-1	(1)	6.26	6.26	6.16	6.36	0.00
Aroclor-1260-2	(2)	6.45	6.45	6.35	6.55	0.00
Aroclor-1260-3	(3)	6.60	6.60	6.50	6.70	0.00
Aroclor-1260-4	(4)	7.08	7.07	6.97	7.17	0.00
Aroclor-1260-5	(5)	7.32	7.31	7.21	7.41	-0.01
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.01
Decachlorobiphenyl		8.71	8.71	8.61	8.81	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 02/03/2025 02/03/2025

Client Sample No.: CCAL05 **Date Analyzed:** 02/04/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109405.D **Time Analyzed:** 08:32

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.793	4.693	4.893	537.250	500.000	7.5
Aroclor-1016-2	4.812	4.713	4.913	540.650	500.000	8.1
Aroclor-1016-3	4.869	4.769	4.969	539.300	500.000	7.9
Aroclor-1016-4	4.989	4.890	5.090	535.140	500.000	7.0
Aroclor-1016-5	5.247	5.148	5.348	541.600	500.000	8.3
Aroclor-1260-1	6.289	6.190	6.390	541.930	500.000	8.4
Aroclor-1260-2	6.478	6.378	6.578	536.860	500.000	7.4
Aroclor-1260-3	6.846	6.747	6.947	540.560	500.000	8.1
Aroclor-1260-4	7.107	7.007	7.207	536.910	500.000	7.4
Aroclor-1260-5	7.349	7.249	7.449	544.100	500.000	8.8
Decachlorobiphenyl	8.758	8.658	8.858	50.980	50.000	2.0
Tetrachloro-m-xylene	3.698	3.599	3.799	55.560	50.000	11.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 02/03/2025 02/03/2025

Client Sample No.: CCAL05 **Date Analyzed:** 02/04/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109405.D **Time Analyzed:** 08:32

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.779	4.679	4.879	514.180	500.000	2.8
Aroclor-1016-2	4.798	4.698	4.898	520.680	500.000	4.1
Aroclor-1016-3	4.974	4.874	5.074	516.610	500.000	3.3
Aroclor-1016-4	5.016	4.915	5.115	509.250	500.000	1.9
Aroclor-1016-5	5.229	5.129	5.329	521.880	500.000	4.4
Aroclor-1260-1	6.262	6.162	6.362	517.160	500.000	3.4
Aroclor-1260-2	6.449	6.349	6.549	519.610	500.000	3.9
Aroclor-1260-3	6.603	6.503	6.703	494.810	500.000	-1.0
Aroclor-1260-4	7.075	6.974	7.174	511.430	500.000	2.3
Aroclor-1260-5	7.315	7.214	7.414	516.330	500.000	3.3
Decachlorobiphenyl	8.708	8.607	8.807	54.160	50.000	8.3
Tetrachloro-m-xylene	3.695	3.595	3.795	52.840	50.000	5.7

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 02/03/2025 02/04/2025

Continuing Calib Time: 13:58 **Initial Calibration Time(s):** 18:17 02:30

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.79	4.79	4.69	4.89	0.00
Aroclor-1016-2	(2)	4.81	4.81	4.71	4.91	0.00
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.01
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.01
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 02/03/2025 02/04/2025

Continuing Calib Time: 13:58 **Initial Calibration Time(s):** 18:17 02:30

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.78	4.68	4.88	0.00
Aroclor-1016-2	(2)	4.80	4.80	4.70	4.90	0.00
Aroclor-1016-3	(3)	4.97	4.97	4.87	5.07	0.00
Aroclor-1016-4	(4)	5.01	5.02	4.92	5.12	0.01
Aroclor-1016-5	(5)	5.23	5.23	5.13	5.33	0.00
Aroclor-1260-1	(1)	6.26	6.26	6.16	6.36	0.00
Aroclor-1260-2	(2)	6.45	6.45	6.35	6.55	0.00
Aroclor-1260-3	(3)	6.60	6.60	6.50	6.70	0.00
Aroclor-1260-4	(4)	7.07	7.07	6.97	7.17	0.00
Aroclor-1260-5	(5)	7.31	7.31	7.21	7.41	0.00
Tetrachloro-m-xylene		3.69	3.70	3.60	3.80	0.01
Decachlorobiphenyl		8.71	8.71	8.61	8.81	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 02/03/2025 02/03/2025

Client Sample No.: CCAL06 **Date Analyzed:** 02/04/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109422.D **Time Analyzed:** 13:58

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.791	4.693	4.893	458.750	500.000	-8.3
Aroclor-1016-2	4.811	4.713	4.913	458.110	500.000	-8.4
Aroclor-1016-3	4.867	4.769	4.969	448.590	500.000	-10.3
Aroclor-1016-4	4.988	4.890	5.090	439.950	500.000	-12.0
Aroclor-1016-5	5.245	5.148	5.348	437.600	500.000	-12.5
Aroclor-1260-1	6.287	6.190	6.390	343.690	500.000	-31.3
Aroclor-1260-2	6.476	6.378	6.578	344.860	500.000	-31.0
Aroclor-1260-3	6.845	6.747	6.947	340.860	500.000	-31.8
Aroclor-1260-4	7.105	7.007	7.207	323.390	500.000	-35.3
Aroclor-1260-5	7.346	7.249	7.449	316.680	500.000	-36.7
Decachlorobiphenyl	8.755	8.658	8.858	35.320	50.000	-29.4
Tetrachloro-m-xylene	3.698	3.599	3.799	48.980	50.000	-2.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 02/03/2025 02/03/2025

Client Sample No.: CCAL06 **Date Analyzed:** 02/04/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109422.D **Time Analyzed:** 13:58

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.778	4.679	4.879	474.730	500.000	-5.1
Aroclor-1016-2	4.797	4.698	4.898	478.930	500.000	-4.2
Aroclor-1016-3	4.972	4.874	5.074	466.200	500.000	-6.8
Aroclor-1016-4	5.014	4.915	5.115	453.590	500.000	-9.3
Aroclor-1016-5	5.228	5.129	5.329	466.150	500.000	-6.8
Aroclor-1260-1	6.261	6.162	6.362	383.820	500.000	-23.2
Aroclor-1260-2	6.448	6.349	6.549	385.730	500.000	-22.9
Aroclor-1260-3	6.601	6.503	6.703	356.180	500.000	-28.8
Aroclor-1260-4	7.073	6.974	7.174	353.890	500.000	-29.2
Aroclor-1260-5	7.314	7.214	7.414	353.190	500.000	-29.4
Decachlorobiphenyl	8.707	8.607	8.807	38.440	50.000	-23.1
Tetrachloro-m-xylene	3.694	3.595	3.795	52.660	50.000	5.3

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_O

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	17:18	PO108981.D	8.76	3.70
AR1660ICC1000	AR1660ICC1000	01/21/2025	17:36	PO108982.D	8.76	3.70
AR1660ICC750	AR1660ICC750	01/21/2025	17:54	PO108983.D	8.76	3.70
AR1660ICC500	AR1660ICC500	01/21/2025	18:13	PO108984.D	8.76	3.70
AR1660ICC250	AR1660ICC250	01/21/2025	18:31	PO108985.D	8.76	3.70
AR1660ICC050	AR1660ICC050	01/21/2025	18:49	PO108986.D	8.76	3.70
AR1221ICC500	AR1221ICC500	01/21/2025	19:07	PO108987.D	8.76	3.70
AR1232ICC500	AR1232ICC500	01/21/2025	19:26	PO108988.D	8.76	3.70
AR1242ICC1000	AR1242ICC1000	01/21/2025	19:44	PO108989.D	8.76	3.70
AR1242ICC750	AR1242ICC750	01/21/2025	20:02	PO108990.D	8.76	3.70
AR1242ICC500	AR1242ICC500	01/21/2025	20:21	PO108991.D	8.76	3.70
AR1242ICC250	AR1242ICC250	01/21/2025	20:39	PO108992.D	8.76	3.70
AR1242ICC050	AR1242ICC050	01/21/2025	20:57	PO108993.D	8.76	3.70
AR1248ICC1000	AR1248ICC1000	01/21/2025	21:16	PO108994.D	8.76	3.70
AR1248ICC750	AR1248ICC750	01/21/2025	21:34	PO108995.D	8.76	3.70
AR1248ICC500	AR1248ICC500	01/21/2025	21:52	PO108996.D	8.76	3.70
AR1248ICC250	AR1248ICC250	01/21/2025	22:10	PO108997.D	8.76	3.70
AR1248ICC050	AR1248ICC050	01/21/2025	22:29	PO108998.D	8.76	3.70
AR1254ICC1000	AR1254ICC1000	01/21/2025	22:47	PO108999.D	8.76	3.70
AR1254ICC750	AR1254ICC750	01/21/2025	23:05	PO109000.D	8.76	3.70
AR1254ICC500	AR1254ICC500	01/21/2025	23:23	PO109001.D	8.76	3.70
AR1254ICC250	AR1254ICC250	01/21/2025	23:42	PO109002.D	8.76	3.70
AR1254ICC050	AR1254ICC050	01/22/2025	00:00	PO109003.D	8.76	3.70
AR1262ICC500	AR1262ICC500	01/22/2025	00:18	PO109004.D	8.76	3.70
AR1268ICC1000	AR1268ICC1000	01/22/2025	00:37	PO109005.D	8.76	3.70
AR1268ICC750	AR1268ICC750	01/22/2025	00:55	PO109006.D	8.76	3.70
AR1268ICC500	AR1268ICC500	01/22/2025	01:13	PO109007.D	8.76	3.70
AR1268ICC250	AR1268ICC250	01/22/2025	01:31	PO109008.D	8.76	3.70
AR1268ICC050	AR1268ICC050	01/22/2025	01:50	PO109009.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	09:16	PO109317.D	8.76	3.70
I.BLK	I.BLK	01/31/2025	10:29	PO109321.D	8.76	3.70
PB166412BL	PB166412BL	01/31/2025	11:35	PO109323.D	8.76	3.70
PB166412BS	PB166412BS	01/31/2025	11:53	PO109324.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	17:22	PO109331.D	8.76	3.70
I.BLK	I.BLK	01/31/2025	18:35	PO109335.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	22:43	PO109344.D	8.76	3.70
I.BLK	I.BLK	01/31/2025	23:57	PO109348.D	8.76	3.70
JPP-46.2-012925MS	Q1232-03MS	02/01/2025	00:33	PO109350.D	8.76	3.70
JPP-46.2-012925MSD	Q1232-03MSD	02/01/2025	00:51	PO109351.D	8.76	3.70
JPP-6.2-013025	Q1242-03	02/01/2025	04:30	PO109363.D	8.76	3.70
AR1660CCC500	AR1660CCC500	02/01/2025	06:43	PO109364.D	8.76	3.70
I.BLK	I.BLK	02/01/2025	07:01	PO109365.D	8.76	3.70

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Analytical Sequence

I.BLK	I.BLK	02/03/2025	17:58	PO109369.D	8.76	3.70
AR1660ICC1000	AR1660ICC1000	02/03/2025	18:17	PO109370.D	8.76	3.70
AR1660ICC750	AR1660ICC750	02/03/2025	18:35	PO109371.D	8.76	3.70
AR1660ICC500	AR1660ICC500	02/03/2025	18:53	PO109372.D	8.76	3.70
AR1660ICC250	AR1660ICC250	02/03/2025	19:12	PO109373.D	8.76	3.70
AR1660ICC050	AR1660ICC050	02/03/2025	19:30	PO109374.D	8.76	3.70
AR1221ICC500	AR1221ICC500	02/03/2025	19:49	PO109375.D	8.76	3.70
AR1232ICC500	AR1232ICC500	02/03/2025	20:07	PO109376.D	8.76	3.70
AR1242ICC1000	AR1242ICC1000	02/03/2025	20:25	PO109377.D	8.76	3.70
AR1242ICC750	AR1242ICC750	02/03/2025	20:44	PO109378.D	8.76	3.70
AR1242ICC500	AR1242ICC500	02/03/2025	21:02	PO109379.D	8.76	3.70
AR1242ICC250	AR1242ICC250	02/03/2025	21:19	PO109380.D	8.76	3.70
AR1242ICC050	AR1242ICC050	02/03/2025	21:38	PO109381.D	8.76	3.70
AR1248ICC1000	AR1248ICC1000	02/03/2025	21:56	PO109382.D	8.76	3.70
AR1248ICC750	AR1248ICC750	02/03/2025	22:14	PO109383.D	8.76	3.70
AR1248ICC500	AR1248ICC500	02/03/2025	22:32	PO109384.D	8.76	3.70
AR1248ICC250	AR1248ICC250	02/03/2025	22:50	PO109385.D	8.76	3.70
AR1248ICC050	AR1248ICC050	02/03/2025	23:08	PO109386.D	8.76	3.70
AR1254ICC1000	AR1254ICC1000	02/03/2025	23:27	PO109387.D	8.76	3.70
AR1254ICC750	AR1254ICC750	02/03/2025	23:45	PO109388.D	8.76	3.70
AR1254ICC500	AR1254ICC500	02/04/2025	00:03	PO109389.D	8.76	3.70
AR1254ICC250	AR1254ICC250	02/04/2025	00:22	PO109390.D	8.76	3.70
AR1254ICC050	AR1254ICC050	02/04/2025	00:40	PO109391.D	8.76	3.70
AR1262ICC500	AR1262ICC500	02/04/2025	00:58	PO109392.D	8.76	3.70
AR1268ICC1000	AR1268ICC1000	02/04/2025	01:17	PO109393.D	8.76	3.70
AR1268ICC750	AR1268ICC750	02/04/2025	01:35	PO109394.D	8.76	3.70
AR1268ICC500	AR1268ICC500	02/04/2025	01:54	PO109395.D	8.76	3.70
AR1268ICC250	AR1268ICC250	02/04/2025	02:12	PO109396.D	8.76	3.70
AR1268ICC050	AR1268ICC050	02/04/2025	02:30	PO109397.D	8.76	3.70
AR1660CCC500	AR1660CCC500	02/04/2025	08:32	PO109405.D	8.76	3.70
I.BLK	I.BLK	02/04/2025	08:51	PO109406.D	8.76	3.70
JPP-46.2-012925MSRE	Q1232-03MSRE	02/04/2025	09:27	PO109408.D	8.76	3.70
JPP-46.2-012925MSDRE	Q1232-03MSDRE	02/04/2025	09:46	PO109409.D	8.76	3.70
JPP-6.2-013025RE	Q1242-03RE	02/04/2025	13:25	PO109421.D	8.76	3.70
AR1660CCC500	AR1660CCC500	02/04/2025	13:58	PO109422.D	8.76	3.70
I.BLK	I.BLK	02/04/2025	14:16	PO109423.D	8.76	3.70

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_O

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	17:18	PO108981.D	8.71	3.70
AR1660ICC1000	AR1660ICC1000	01/21/2025	17:36	PO108982.D	8.71	3.70
AR1660ICC750	AR1660ICC750	01/21/2025	17:54	PO108983.D	8.71	3.70
AR1660ICC500	AR1660ICC500	01/21/2025	18:13	PO108984.D	8.73	3.72
AR1660ICC250	AR1660ICC250	01/21/2025	18:31	PO108985.D	8.71	3.70
AR1660ICC050	AR1660ICC050	01/21/2025	18:49	PO108986.D	8.71	3.70
AR1221ICC500	AR1221ICC500	01/21/2025	19:07	PO108987.D	8.71	3.70
AR1232ICC500	AR1232ICC500	01/21/2025	19:26	PO108988.D	8.71	3.70
AR1242ICC1000	AR1242ICC1000	01/21/2025	19:44	PO108989.D	8.71	3.70
AR1242ICC750	AR1242ICC750	01/21/2025	20:02	PO108990.D	8.71	3.70
AR1242ICC500	AR1242ICC500	01/21/2025	20:21	PO108991.D	8.71	3.70
AR1242ICC250	AR1242ICC250	01/21/2025	20:39	PO108992.D	8.71	3.70
AR1242ICC050	AR1242ICC050	01/21/2025	20:57	PO108993.D	8.71	3.70
AR1248ICC1000	AR1248ICC1000	01/21/2025	21:16	PO108994.D	8.71	3.70
AR1248ICC750	AR1248ICC750	01/21/2025	21:34	PO108995.D	8.71	3.70
AR1248ICC500	AR1248ICC500	01/21/2025	21:52	PO108996.D	8.71	3.70
AR1248ICC250	AR1248ICC250	01/21/2025	22:10	PO108997.D	8.71	3.70
AR1248ICC050	AR1248ICC050	01/21/2025	22:29	PO108998.D	8.71	3.70
AR1254ICC1000	AR1254ICC1000	01/21/2025	22:47	PO108999.D	8.71	3.70
AR1254ICC750	AR1254ICC750	01/21/2025	23:05	PO109000.D	8.71	3.70
AR1254ICC500	AR1254ICC500	01/21/2025	23:23	PO109001.D	8.71	3.70
AR1254ICC250	AR1254ICC250	01/21/2025	23:42	PO109002.D	8.71	3.70
AR1254ICC050	AR1254ICC050	01/22/2025	00:00	PO109003.D	8.71	3.70
AR1262ICC500	AR1262ICC500	01/22/2025	00:18	PO109004.D	8.71	3.70
AR1268ICC1000	AR1268ICC1000	01/22/2025	00:37	PO109005.D	8.71	3.70
AR1268ICC750	AR1268ICC750	01/22/2025	00:55	PO109006.D	8.71	3.70
AR1268ICC500	AR1268ICC500	01/22/2025	01:13	PO109007.D	8.71	3.70
AR1268ICC250	AR1268ICC250	01/22/2025	01:31	PO109008.D	8.71	3.70
AR1268ICC050	AR1268ICC050	01/22/2025	01:50	PO109009.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	09:16	PO109317.D	8.71	3.69
I.BLK	I.BLK	01/31/2025	10:29	PO109321.D	8.71	3.70
PB166412BL	PB166412BL	01/31/2025	11:35	PO109323.D	8.71	3.70
PB166412BS	PB166412BS	01/31/2025	11:53	PO109324.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	17:22	PO109331.D	8.71	3.70
I.BLK	I.BLK	01/31/2025	18:35	PO109335.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/31/2025	22:43	PO109344.D	8.71	3.70
I.BLK	I.BLK	01/31/2025	23:57	PO109348.D	8.71	3.70
JPP-46.2-012925MS	Q1232-03MS	02/01/2025	00:33	PO109350.D	8.71	3.70
JPP-46.2-012925MSD	Q1232-03MSD	02/01/2025	00:51	PO109351.D	8.71	3.70
JPP-6.2-013025	Q1242-03	02/01/2025	04:30	PO109363.D	8.71	3.70
AR1660CCC500	AR1660CCC500	02/01/2025	06:43	PO109364.D	8.71	3.70
I.BLK	I.BLK	02/01/2025	07:01	PO109365.D	8.71	3.70

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Analytical Sequence

I.BLK	I.BLK	02/03/2025	17:58	PO109369.D	8.71	3.70
AR1660ICC1000	AR1660ICC1000	02/03/2025	18:17	PO109370.D	8.71	3.70
AR1660ICC750	AR1660ICC750	02/03/2025	18:35	PO109371.D	8.71	3.70
AR1660ICC500	AR1660ICC500	02/03/2025	18:53	PO109372.D	8.71	3.70
AR1660ICC250	AR1660ICC250	02/03/2025	19:12	PO109373.D	8.71	3.70
AR1660ICC050	AR1660ICC050	02/03/2025	19:30	PO109374.D	8.71	3.69
AR1221ICC500	AR1221ICC500	02/03/2025	19:49	PO109375.D	8.71	3.70
AR1232ICC500	AR1232ICC500	02/03/2025	20:07	PO109376.D	8.71	3.70
AR1242ICC1000	AR1242ICC1000	02/03/2025	20:25	PO109377.D	8.71	3.70
AR1242ICC750	AR1242ICC750	02/03/2025	20:44	PO109378.D	8.71	3.70
AR1242ICC500	AR1242ICC500	02/03/2025	21:02	PO109379.D	8.71	3.69
AR1242ICC250	AR1242ICC250	02/03/2025	21:19	PO109380.D	8.71	3.69
AR1242ICC050	AR1242ICC050	02/03/2025	21:38	PO109381.D	8.71	3.69
AR1248ICC1000	AR1248ICC1000	02/03/2025	21:56	PO109382.D	8.71	3.69
AR1248ICC750	AR1248ICC750	02/03/2025	22:14	PO109383.D	8.71	3.69
AR1248ICC500	AR1248ICC500	02/03/2025	22:32	PO109384.D	8.71	3.69
AR1248ICC250	AR1248ICC250	02/03/2025	22:50	PO109385.D	8.71	3.69
AR1248ICC050	AR1248ICC050	02/03/2025	23:08	PO109386.D	8.71	3.69
AR1254ICC1000	AR1254ICC1000	02/03/2025	23:27	PO109387.D	8.71	3.70
AR1254ICC750	AR1254ICC750	02/03/2025	23:45	PO109388.D	8.71	3.70
AR1254ICC500	AR1254ICC500	02/04/2025	00:03	PO109389.D	8.71	3.70
AR1254ICC250	AR1254ICC250	02/04/2025	00:22	PO109390.D	8.71	3.70
AR1254ICC050	AR1254ICC050	02/04/2025	00:40	PO109391.D	8.71	3.69
AR1262ICC500	AR1262ICC500	02/04/2025	00:58	PO109392.D	8.71	3.70
AR1268ICC1000	AR1268ICC1000	02/04/2025	01:17	PO109393.D	8.71	3.70
AR1268ICC750	AR1268ICC750	02/04/2025	01:35	PO109394.D	8.71	3.70
AR1268ICC500	AR1268ICC500	02/04/2025	01:54	PO109395.D	8.71	3.70
AR1268ICC250	AR1268ICC250	02/04/2025	02:12	PO109396.D	8.71	3.70
AR1268ICC050	AR1268ICC050	02/04/2025	02:30	PO109397.D	8.71	3.69
AR1660CCC500	AR1660CCC500	02/04/2025	08:32	PO109405.D	8.71	3.70
I.BLK	I.BLK	02/04/2025	08:51	PO109406.D	8.71	3.69
JPP-46.2-012925MSRE	Q1232-03MSRE	02/04/2025	09:27	PO109408.D	8.71	3.69
JPP-46.2-012925MSDRE	Q1232-03MSDRE	02/04/2025	09:46	PO109409.D	8.71	3.69
JPP-6.2-013025RE	Q1242-03RE	02/04/2025	13:25	PO109421.D	8.71	3.69
AR1660CCC500	AR1660CCC500	02/04/2025	13:58	PO109422.D	8.71	3.69
I.BLK	I.BLK	02/04/2025	14:16	PO109423.D	8.71	3.70

QC SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166412BL	SDG No.:	Q1242
Lab Sample ID:	PB166412BL	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109323.D	1	01/31/25 08:15	01/31/25 11:35	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	17.0	U	3.40	17.0	ug/kg
11104-28-2	Aroclor-1221	17.0	U	6.40	17.0	ug/kg
11141-16-5	Aroclor-1232	17.0	U	3.40	17.0	ug/kg
53469-21-9	Aroclor-1242	17.0	U	3.40	17.0	ug/kg
12672-29-6	Aroclor-1248	17.0	U	7.90	17.0	ug/kg
11097-69-1	Aroclor-1254	17.0	U	2.70	17.0	ug/kg
37324-23-5	Aroclor-1262	17.0	U	4.60	17.0	ug/kg
11100-14-4	Aroclor-1268	17.0	U	3.40	17.0	ug/kg
11096-82-5	Aroclor-1260	17.0	U	2.90	17.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	24.1		32 - 144	120%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.0		32 - 175	105%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PO108981.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PO108981.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108981.D	1		01/21/25	PO012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.6		60 - 140	103%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.6		60 - 140	108%	SPK: 20

Comments:

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D = Dilution
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PO109321.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PO109321.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109321.D	1		01/31/25	PO013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.1		60 - 140	95%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.8		60 - 140	89%	SPK: 20

Comments:

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M = MS/MSD acceptance criteria did not meet requirements

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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PO109335.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PO109335.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109335.D	1		01/31/25	PO013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.7		60 - 140	99%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.1		60 - 140	81%	SPK: 20

Comments:

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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-PO109348.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PO109348.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109348.D	1		01/31/25	PO013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.8		60 - 140	99%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.1		60 - 140	85%	SPK: 20

Comments:

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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/01/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/01/25
Client Sample ID:	PIBLK-PO109365.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PO109365.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109365.D	1		02/01/25	PO013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.8		60 - 140	99%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.4		60 - 140	67%	SPK: 20

Comments:

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M = MS/MSD acceptance criteria did not meet requirements

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B = Analyte Found in Associated Method Blank
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PO109369.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PO109369.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109369.D	1		02/03/25	PO020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.1		60 - 140	101%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.4		60 - 140	107%	SPK: 20

Comments:

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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PO109406.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PO109406.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109406.D	1		02/04/25	PO020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.0		60 - 140	105%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.0		60 - 140	115%	SPK: 20

Comments:

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LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PO109423.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PO109423.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109423.D	1		02/04/25	PO020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.1		60 - 140	105%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.5		60 - 140	78%	SPK: 20

Comments:

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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166412BS	SDG No.:	Q1242
Lab Sample ID:	PB166412BS	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109324.D	1	01/31/25 08:15	01/31/25 11:53	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	162		3.40	17.0	ug/kg
11104-28-2	Aroclor-1221	17.0	U	6.40	17.0	ug/kg
11141-16-5	Aroclor-1232	17.0	U	3.40	17.0	ug/kg
53469-21-9	Aroclor-1242	17.0	U	3.40	17.0	ug/kg
12672-29-6	Aroclor-1248	17.0	U	7.90	17.0	ug/kg
11097-69-1	Aroclor-1254	17.0	U	2.70	17.0	ug/kg
37324-23-5	Aroclor-1262	17.0	U	4.60	17.0	ug/kg
11100-14-4	Aroclor-1268	17.0	U	3.40	17.0	ug/kg
11096-82-5	Aroclor-1260	149		2.90	17.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.1		32 - 144	116%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.8		32 - 175	109%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925MS	SDG No.:	Q1242
Lab Sample ID:	Q1232-03MS	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109350.D	1	01/31/25 08:15	02/01/25 00:33	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	185		3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	175		3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	22.5		32 - 144	112%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.9		32 - 175	100%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925MSRE	SDG No.:	Q1242
Lab Sample ID:	Q1232-03MSRE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109408.D	1	01/31/25 08:15	02/04/25 09:27	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	170		3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	170		3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.0		32 - 144	105%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.9		32 - 175	114%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925MSD	SDG No.:	Q1242
Lab Sample ID:	Q1232-03MSD	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109351.D	1	01/31/25 08:15	02/01/25 00:51	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	183		3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	173		3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	22.3		32 - 144	112%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.0		32 - 175	100%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-46.2-012925MSDRE	SDG No.:	Q1242
Lab Sample ID:	Q1232-03MSDRE	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	89.2 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109409.D	1	01/31/25 08:15	02/04/25 09:46	PB166412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	167		3.80	19.0	ug/kg
11104-28-2	Aroclor-1221	19.0	U	7.20	19.0	ug/kg
11141-16-5	Aroclor-1232	19.0	U	3.80	19.0	ug/kg
53469-21-9	Aroclor-1242	19.0	U	3.80	19.0	ug/kg
12672-29-6	Aroclor-1248	19.0	U	8.80	19.0	ug/kg
11097-69-1	Aroclor-1254	19.0	U	3.10	19.0	ug/kg
37324-23-5	Aroclor-1262	19.0	U	5.10	19.0	ug/kg
11100-14-4	Aroclor-1268	19.0	U	3.80	19.0	ug/kg
11096-82-5	Aroclor-1260	167		3.30	19.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.8		32 - 144	104%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.8		32 - 175	114%	SPK: 20

Comments:

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-01	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP Herbicide	8151A		02/03/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242 **Order ID:** Q1242

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: 0.000

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PB166423TB	SDG No.:	Q1242
Lab Sample ID:	PB166423TB	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029050.D	1	02/03/25 09:00	02/03/25 16:57	PB166485

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	497		39 - 175	99%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-04	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029058.D	1	02/03/25 09:00	02/03/25 20:09	PB166485

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	634		39 - 175	127%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

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Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PS028900.D	PIBLK-PS028900.D	2,4-DCAA	1	500	474	95		39	175
		2,4-DCAA	2	500	492	98		39	175
I.BLK-PS029046.D	PIBLK-PS029046.D	2,4-DCAA	1	500	484	97		39	175
		2,4-DCAA	2	500	446	89		39	175
PB166485BL	PB166485BL	2,4-DCAA	1	500	498	100		39	175
		2,4-DCAA	2	500	452	90		39	175
PB166485BS	PB166485BS	2,4-DCAA	1	500	526	105		39	175
		2,4-DCAA	2	500	467	93		39	175
PB166423TB	PB166423TB	2,4-DCAA	1	500	497	99		39	175
		2,4-DCAA	2	500	363	73		39	175
Q1241-04MS	JPP-3.5-013025MS	2,4-DCAA	1	500	558	112		39	175
		2,4-DCAA	2	500	366	73		39	175
Q1241-04MSD	JPP-3.5-013025MSD	2,4-DCAA	1	500	567	113		39	175
		2,4-DCAA	2	500	374	75		39	175
Q1242-04	JPP-6.2-013025	2,4-DCAA	1	500	634	127		39	175
		2,4-DCAA	2	500	403	81		39	175
I.BLK-PS029059.D	PIBLK-PS029059.D	2,4-DCAA	1	500	492	98		39	175
		2,4-DCAA	2	500	457	91		39	175

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8151A **DataFile :** PS029052.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**JPP-3.5-013025MS**											
Q1241-04MS	2,4-D	50	0	52.8	ug/L	106				65	135	
	2,4,5-TP(Silvex)	50	0	51.0	ug/L	102				62	139	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8151A **DataFile :** PS029053.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-3.5-013025MSD**											
Q1241-04MSD	2,4-D	50	0	53.3	ug/L	107		1		65	135	20
	2,4,5-TP(Silvex)	50	0	51.7	ug/L	103		1		62	139	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: 8151A **Datafile :** PS029049.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166485BS	2,4-D	5	5.00	ug/L	100				83	130	
	2,4,5-TP(Silvex)	5	5.10	ug/L	102				78	127	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166485BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab Sample ID: PB166485BL Lab File ID: PS029048.D

Matrix: (soil/water) water Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 02/03/2025

Date Analyzed (1): 02/03/2025 Date Analyzed (2): 02/03/2025

Time Analyzed (1): 16:09 Time Analyzed (2): 16:09

Instrument ID (1): ECD_S Instrument ID (2): ECD_S

GC Column (1): RTX-CLP ID: 0.32 (mm) GC Column (2): RTX-CLP2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166485BS	PB166485BS	PS029049.D	02/03/2025	02/03/2025
PB166423TB	PB166423TB	PS029050.D	02/03/2025	02/03/2025
JPP-3.5-013025MS	Q1241-04MS	PS029052.D	02/03/2025	02/03/2025
JPP-3.5-013025MSD	Q1241-04MSD	PS029053.D	02/03/2025	02/03/2025
JPP-6.2-013025	Q1242-04	PS029058.D	02/03/2025	02/03/2025

COMMENTS:

QC SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166485BL	SDG No.:	Q1242
Lab Sample ID:	PB166485BL	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029048.D	1	02/03/25 09:00	02/03/25 16:09	PB166485

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	498		39 - 175	100%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/14/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/14/25
Client Sample ID:	PIBLK-PS028900.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PS028900.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028900.D	1		01/14/25	PS011425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	492		39 - 175	98%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PS029046.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PS029046.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029046.D	1		02/03/25	ps020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	484		39 - 175	97%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PS029059.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-PS029059.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029059.D	1		02/03/25	ps020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	492		39 - 175	98%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166485BS	SDG No.:	Q1242
Lab Sample ID:	PB166485BS	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029049.D	1	02/03/25 09:00	02/03/25 16:33	PB166485

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	5.00		0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	5.10		0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	526		39 - 175	105%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025MS	SDG No.:	Q1242
Lab Sample ID:	Q1241-04MS	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029052.D	1	02/03/25 09:00	02/03/25 17:45	PB166485

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	52.8		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	51.0		4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	558		39 - 175	112%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025MSD	SDG No.:	Q1242
Lab Sample ID:	Q1241-04MSD	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029053.D	1	02/03/25 09:00	02/03/25 18:09	PB166485

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	53.3		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	51.7		4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	567		39 - 175	113%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
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CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP ID: 0.32 (mm)

LAB FILE ID: RT 200 = PS028901.D RT 500 = PS028902.D

RT 750 = PS028903.D RT 1000 = PS028904.D RT 1500 = PS028905.D

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4,5-TP(Silvex)	9.19	9.19	9.19	9.19	9.19	9.19	9.09	9.29
2,4-D	8.32	8.32	8.32	8.32	8.32	8.32	8.22	8.42
2,4-DCAA	7.20	7.20	7.20	7.20	7.20	7.20	7.10	7.30

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP2 ID: 0.32 (mm)

LAB FILE ID: RT 200 = PS028901.D RT 500 = PS028902.D

RT 750 = PS028903.D RT 1000 = PS028904.D RT 1500 = PS028905.D

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4,5-TP(Silvex)	9.81	9.81	9.81	9.81	9.81	9.81	9.71	9.91
2,4-D	8.92	8.91	8.91	8.91	8.91	8.91	8.81	9.01
2,4-DCAA	7.68	7.68	7.68	7.68	7.68	7.68	7.58	7.78

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 (mm)

LAB FILE ID: CF 200 = PS028901.D CF 500 = PS028902.D

CF 750 = PS028903.D CF 1000 = PS028904.D CF 1500 = PS028905.D

COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	21246200000	19217800000	18444300000	17622300000	16707400000	18647600000	9
2,4-D	3794730000	3389210000	3238030000	3095840000	2967500000	3297060000	10
2,4-DCAA	3179220000	2766210000	2659700000	2530920000	2413760000	2709960000	11

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 (mm)

LAB FILE ID: **CF 200 =** PS028901.D **CF 500 =** PS028902.D

CF 750 = PS028903.D **CF 1000 =** PS028904.D **CF 1500 =** PS028905.D

COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	9615710000	9419870000	9409010000	9233020000	9015720000	9338670000	2
2,4-D	1602310000	1486700000	1468930000	1440130000	1429250000	1485460000	5
2,4-DCAA	1189550000	1103610000	1095350000	1074740000	1070080000	1106670000	4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 10:38 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.19	7.20	7.10	7.30	0.01
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 10:38 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.90	8.91	8.81	9.01	0.01
2,4,5-TP(Silvex)	9.80	9.81	9.71	9.91	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: RTX-CLP **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL01 **Date Analyzed:** 02/03/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029047.D **Time Analyzed:** 10:38

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.180	9.089	9.289	723.740	712.500	1.6
2,4-D	8.309	8.216	8.416	700.140	705.000	-0.7
2,4-DCAA	7.191	7.097	7.297	744.770	750.000	-0.7

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL01 **Date Analyzed:** 02/03/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029047.D **Time Analyzed:** 10:38

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.802	9.713	9.913	708.950	712.500	-0.5
2,4-D	8.903	8.813	9.013	652.250	705.000	-7.5
2,4-DCAA	7.669	7.577	7.777	675.660	750.000	-9.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 20:57 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.19	7.20	7.10	7.30	0.01
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 20:57 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.90	8.91	8.81	9.01	0.01
2,4,5-TP(Silvex)	9.80	9.81	9.71	9.91	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: RTX-CLP **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL02 **Date Analyzed:** 02/03/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029060.D **Time Analyzed:** 20:57

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.180	9.089	9.289	720.700	712.500	1.2
2,4-D	8.308	8.216	8.416	699.060	705.000	-0.8
2,4-DCAA	7.192	7.097	7.297	741.660	750.000	-1.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL02 **Date Analyzed:** 02/03/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS029060.D **Time Analyzed:** 20:57

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.803	9.713	9.913	710.800	712.500	-0.2
2,4-D	8.903	8.813	9.013	657.380	705.000	-6.8
2,4-DCAA	7.669	7.577	7.777	680.490	750.000	-9.3

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_S

GC Column: RTX-CLP **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/14/2025 01/14/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT #	RT #
I.BLK	I.BLK	01/14/2025	10:07	PS028900.D	7.20	0.00
HSTDICC200	HSTDICC200	01/14/2025	10:31	PS028901.D	7.20	0.00
HSTDICC500	HSTDICC500	01/14/2025	10:55	PS028902.D	7.20	0.00
HSTDICC750	HSTDICC750	01/14/2025	11:19	PS028903.D	7.20	0.00
HSTDICC1000	HSTDICC1000	01/14/2025	11:43	PS028904.D	7.20	0.00
HSTDICC1500	HSTDICC1500	01/14/2025	12:07	PS028905.D	7.20	0.00
I.BLK	I.BLK	02/03/2025	10:14	PS029046.D	7.19	0.00
HSTDCCC750	HSTDCCC750	02/03/2025	10:38	PS029047.D	7.19	0.00
PB166485BL	PB166485BL	02/03/2025	16:09	PS029048.D	7.19	0.00
PB166485BS	PB166485BS	02/03/2025	16:33	PS029049.D	7.19	0.00
PB166423TB	PB166423TB	02/03/2025	16:57	PS029050.D	7.19	0.00
JPP-3.5-013025MS	Q1241-04MS	02/03/2025	17:45	PS029052.D	7.19	0.00
JPP-3.5-013025MSD	Q1241-04MSD	02/03/2025	18:09	PS029053.D	7.19	0.00
JPP-6.2-013025	Q1242-04	02/03/2025	20:09	PS029058.D	7.19	0.00
I.BLK	I.BLK	02/03/2025	20:33	PS029059.D	7.19	0.00
HSTDCCC750	HSTDCCC750	02/03/2025	20:57	PS029060.D	7.19	0.00

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_S

GC Column: RTX-CLP2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/14/2025 01/14/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT #	RT #
I.BLK	I.BLK	01/14/2025	10:07	PS028900.D	7.68	0.00
HSTDICC200	HSTDICC200	01/14/2025	10:31	PS028901.D	7.68	0.00
HSTDICC500	HSTDICC500	01/14/2025	10:55	PS028902.D	7.68	0.00
HSTDICC750	HSTDICC750	01/14/2025	11:19	PS028903.D	7.68	0.00
HSTDICC1000	HSTDICC1000	01/14/2025	11:43	PS028904.D	7.68	0.00
HSTDICC1500	HSTDICC1500	01/14/2025	12:07	PS028905.D	7.68	0.00
I.BLK	I.BLK	02/03/2025	10:14	PS029046.D	7.67	0.00
HSTDCCC750	HSTDCCC750	02/03/2025	10:38	PS029047.D	7.67	0.00
PB166485BL	PB166485BL	02/03/2025	16:09	PS029048.D	7.66	0.00
PB166485BS	PB166485BS	02/03/2025	16:33	PS029049.D	7.67	0.00
PB166423TB	PB166423TB	02/03/2025	16:57	PS029050.D	7.67	0.00
JPP-3.5-013025MS	Q1241-04MS	02/03/2025	17:45	PS029052.D	7.67	0.00
JPP-3.5-013025MSD	Q1241-04MSD	02/03/2025	18:09	PS029053.D	7.67	0.00
JPP-6.2-013025	Q1242-04	02/03/2025	20:09	PS029058.D	7.67	0.00
I.BLK	I.BLK	02/03/2025	20:33	PS029059.D	7.67	0.00
HSTDCCC750	HSTDCCC750	02/03/2025	20:57	PS029060.D	7.67	0.00

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-3.5-013025MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1241-04MS **Date(s) Analyzed:** 02/03/2025 02/03/2025

Instrument ID (1): ECD_S **Instrument ID (2):** ECD_S

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26	8.36	52.8	10.1
	2	8.90	8.85	8.95	47.7	
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	51.0	4.2
	2	9.80	9.75	9.85	48.9	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-3.5-013025MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: Q1241-04MSD **Date(s) Analyzed:** 02/03/2025 02/03/2025

Instrument ID (1): ECD_S **Instrument ID (2):** ECD_S

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26	8.36	53.3	10
	2	8.90	8.85	8.95	48.2	
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	51.7	3.9
	2	9.80	9.75	9.85	49.7	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB166485BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1242 **SAS No.:** Q1242 **SDG NO.:** Q1242

Lab Sample ID: PB166485BS **Date(s) Analyzed:** 02/03/2025 02/03/2025

Instrument ID (1): ECD_S **Instrument ID (2):** ECD_S

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	5.10	4
	2	9.80	9.75	9.85	4.90	
2,4-D	1	8.31	8.26	8.36	5.00	10.5
	2	8.90	8.85	8.95	4.50	

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-01	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			Diesel Range Organics	8015D		01/31/25	01/31/25	
			Gasoline Range Organics	8015D			01/31/25	
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP Herbicide	8151A		02/03/25	02/03/25	

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	81.5 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052188.D	10	01/31/25 08:50	01/31/25 20:42	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	66000		2270	20400	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	1.11		37 - 130	56%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

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SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FE052167.D	90				0
PIBLK-FE052179.D	82				0
PIBLK-FE052189.D	87				0
PB166415BL	87				0
PB166415BS	94				0
JPP-5.3-013025MS	64				0
JPP-5.3-013025MSD	62				0
JPP-6.2-013025	56				0

	QC LIMITS
TETRACOSANE-d50	For Water : 29-130 For Soil : 37-130

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1242 **SAS No :** Q1242 **SDG No:** Q1242

Client SampleID : JPP-5.3-013025MS **Datafile:** FE052181.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7453	168000	150000	-242%	*	68-131

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SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1242 **SAS No :** Q1242 **SDG No:** Q1242

Client SampleID : JPP-5.3-013025MSD **Datafile:** FE052182.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7460	168000	152000	-214%	*	68-131

MS/MSD % Recovery RPD : 11.8

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SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1242 **SAS No :** Q1242 **SDG No:** Q1242

Matrix Spike - EPA Sample No : PB166415BS **Datafile:** FE052172.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6660	0	6353	95	68-131

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4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.
PB166415BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: FE052171.D Lab Sample ID: PB166415BL

Instrument ID: FE Date Extracted: 01/31/2025

Matrix: (soil/water) Soil Date Analyzed: 01/31/25

Level: (low/med) low Time Analyzed: 12:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166415BS	PB166415BS	FE052172.D	01/31/25
JPP-5.3-013025MS	Q1241-05MS	FE052181.D	01/31/25
JPP-5.3-013025MSD	Q1241-05MSD	FE052182.D	01/31/25
JPP-6.2-013025	Q1242-01	FE052188.D	01/31/25

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166415BL	SDG No.:	Q1242
Lab Sample ID:	PB166415BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052171.D	1	01/31/25 08:50	01/31/25 12:08	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1670	U	185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	17.4		37 - 130	87%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052167.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-FE052167.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052167.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	18.1		29 - 130	90%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052179.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-FE052179.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052179.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.3		29 - 130	82%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/31/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/31/25
Client Sample ID:	PIBLK-FE052189.D	SDG No.:	Q1242
Lab Sample ID:	I.BLK-FE052189.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052189.D	1		01/31/25	FE013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.5		29 - 130	87%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
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B = Analyte Found in Associated Method Blank
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166415BS	SDG No.:	Q1242
Lab Sample ID:	PB166415BS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052172.D	1	01/31/25 08:50	01/31/25 12:38	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	6350		185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.8		37 - 130	94%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025MS	SDG No.:	Q1242
Lab Sample ID:	Q1241-05MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.3 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052181.D	1	01/31/25 08:50	01/31/25 17:10	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	150000	E	207	1860	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	12.8		37 - 130	64%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025MSD	SDG No.:	Q1242
Lab Sample ID:	Q1241-05MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.3 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052182.D	1	01/31/25 08:50	01/31/25 17:40	PB166415

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	152000	E	207	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	12.4		37 - 130	62%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Calibration Sequence : FE012325		Test : Diesel Range Organics	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
1000	100840417	100840	FE052027.D
500	49711032	99422	FE052028.D
200	20907011	104535	FE052029.D
100	11272495	112725	FE052030.D
50	5669298	113386	FE052031.D
AVG RF : 106182	**% RSD : 6.169**		**AVG RT : 15.2554**

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

DataFile: FE052168.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	48882662	97765	106182	7.927

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

DataFile: FE052180.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	46710313	93421	106182	12.018

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

DataFile: FE052190.D Analyst Name: YP\AJ Analyst Date: 01-31-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	47002499	94005	106182	11.468

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **Instrument ID:** FID_E

GC Column: RXI-1MS **ID:** 0.18 **(mm)**

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION **15.2554**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	31 Jan 2025 09:56	FE052167.D	15.274	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 10:26	FE052168.D	15.275	
PB166415BL	PB166415BL	31 Jan 2025 12:08	FE052171.D	15.271	
PB166415BS	PB166415BS	31 Jan 2025 12:38	FE052172.D	15.270	
PIBLK02	I.BLK02	31 Jan 2025 16:09	FE052179.D	15.300	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 16:40	FE052180.D	15.300	
JPP-5.3-013025MS	Q1241-05MS	31 Jan 2025 17:10	FE052181.D	15.243	
JPP-5.3-013025MSD	Q1241-05MSD	31 Jan 2025 17:40	FE052182.D	15.248	
JPP-6.2-013025	Q1242-01	31 Jan 2025 20:42	FE052188.D	15.230	
PIBLK03	I.BLK03	31 Jan 2025 21:12	FE052189.D	15.299	
50 PPM TRPH STD	50 PPM TRPH STD	31 Jan 2025 22:12	FE052190.D	15.300	

 # Column used to flag RT values with an * values outside of QC limits

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	15.1554	15.3554

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-03	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			Mercury	7471B		02/03/25	02/03/25	
			Metals ICP-TAL	6010D		01/31/25	02/10/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242 **Order ID:** Q1242

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-6.2-013025								
Q1242-03	JPP-6.2-013025	SOIL	Aluminum	5250		2.53	5.24	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Antimony	0.52	J	0.16	2.62	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Arsenic	3.99		0.30	1.05	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Barium	79.5		0.67	5.24	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Beryllium	0.34		0.013	0.31	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Cadmium	0.79		0.017	0.31	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Calcium	31800		2.93	105	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Chromium	18.8		0.057	0.52	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Cobalt	5.01		0.061	1.57	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Copper	36.6		0.49	1.05	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Iron	11700		2.82	5.24	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Lead	130		0.16	0.63	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Magnesium	4680		3.60	105	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Manganese	167		0.074	1.05	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Mercury	0.47		0.0060	0.015	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Nickel	21.1		0.094	2.10	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Potassium	1510		30.1	105	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Silver	0.83		0.055	0.52	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Sodium	1780		37.8	105	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Vanadium	17.4		0.28	2.10	mg/Kg
Q1242-03	JPP-6.2-013025	SOIL	Zinc	74.3		0.12	2.10	mg/Kg

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	81.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5250		1	2.53	5.24	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-36-0	Antimony	0.52	JN	1	0.16	2.62	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-38-2	Arsenic	3.99		1	0.30	1.05	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-39-3	Barium	79.5		1	0.67	5.24	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-41-7	Beryllium	0.34		1	0.013	0.31	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-43-9	Cadmium	0.79		1	0.017	0.31	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-70-2	Calcium	31800		1	2.93	105	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-47-3	Chromium	18.8		1	0.057	0.52	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-48-4	Cobalt	5.01		1	0.061	1.57	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-50-8	Copper	36.6		1	0.49	1.05	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7439-89-6	Iron	11700		1	2.82	5.24	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7439-92-1	Lead	130		1	0.16	0.63	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7439-95-4	Magnesium	4680		1	3.60	105	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7439-96-5	Manganese	167		1	0.074	1.05	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7439-97-6	Mercury	0.47	*	1	0.0060	0.015	mg/Kg	02/03/25 10:35	02/03/25 18:44	SW7471B	
7440-02-0	Nickel	21.1		1	0.094	2.10	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-09-7	Potassium	1510		1	30.1	105	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7782-49-2	Selenium	1.05	U	1	0.35	1.05	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-22-4	Silver	0.83	*	1	0.055	0.52	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-23-5	Sodium	1780		1	37.8	105	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-28-0	Thallium	2.10	U	1	0.46	2.10	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-62-2	Vanadium	17.4	N	1	0.28	2.10	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050
7440-66-6	Zinc	74.3		1	0.12	2.10	mg/Kg	01/31/25 09:40	02/10/25 20:19	SW6010	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV82	Mercury	3.82	4.0	95	90 - 110	CV	02/03/2025	18:02	LB134542

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV14	Mercury	5.18	5.0	104	90 - 110	CV	02/03/2025	18:07	LB134542
CCV15	Mercury	4.99	5.0	100	90 - 110	CV	02/03/2025	18:35	LB134542
CCV16	Mercury	5.19	5.0	104	90 - 110	CV	02/03/2025	19:02	LB134542
CCV17	Mercury	5.01	5.0	100	90 - 110	CV	02/03/2025	19:27	LB134542

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2550	2500	102	90 - 110	P	02/10/2025	14:06	LB134659
	Antimony	1070	1000	107	90 - 110	P	02/10/2025	14:06	LB134659
	Arsenic	1030	1000	104	90 - 110	P	02/10/2025	14:06	LB134659
	Barium	502	520	97	90 - 110	P	02/10/2025	14:06	LB134659
	Beryllium	505	510	99	90 - 110	P	02/10/2025	14:06	LB134659
	Cadmium	514	510	101	90 - 110	P	02/10/2025	14:06	LB134659
	Calcium	10000	10000	100	90 - 110	P	02/10/2025	14:06	LB134659
	Chromium	541	520	104	90 - 110	P	02/10/2025	14:06	LB134659
	Cobalt	522	520	100	90 - 110	P	02/10/2025	14:06	LB134659
	Copper	541	510	106	90 - 110	P	02/10/2025	14:06	LB134659
	Iron	10300	10000	103	90 - 110	P	02/10/2025	14:06	LB134659
	Lead	1010	1000	101	90 - 110	P	02/10/2025	14:06	LB134659
	Magnesium	5910	6000	99	90 - 110	P	02/10/2025	14:06	LB134659
	Manganese	511	520	98	90 - 110	P	02/10/2025	14:06	LB134659
	Nickel	526	530	99	90 - 110	P	02/10/2025	14:06	LB134659
	Potassium	10100	9900	102	90 - 110	P	02/10/2025	14:06	LB134659
	Selenium	1080	1000	108	90 - 110	P	02/10/2025	14:06	LB134659
	Silver	256	250	102	90 - 110	P	02/10/2025	14:06	LB134659
	Sodium	9920	10000	99	90 - 110	P	02/10/2025	14:06	LB134659
	Thallium	1050	1000	106	90 - 110	P	02/10/2025	14:06	LB134659
	Vanadium	503	500	101	90 - 110	P	02/10/2025	14:06	LB134659
	Zinc	988	1000	99	90 - 110	P	02/10/2025	14:06	LB134659

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	97.7	100	98	80 - 120	P	02/10/2025	14:20	LB134659
	Antimony	52.3	50.0	105	80 - 120	P	02/10/2025	14:20	LB134659
	Arsenic	21.0	20.0	105	80 - 120	P	02/10/2025	14:20	LB134659
	Barium	84.5	100	84	80 - 120	P	02/10/2025	14:20	LB134659
	Beryllium	5.86	6.0	98	80 - 120	P	02/10/2025	14:20	LB134659
	Cadmium	5.70	6.0	95	80 - 120	P	02/10/2025	14:20	LB134659
	Calcium	1930	2000	96	80 - 120	P	02/10/2025	14:20	LB134659
	Chromium	9.89	10.0	99	80 - 120	P	02/10/2025	14:20	LB134659
	Cobalt	29.0	30.0	97	80 - 120	P	02/10/2025	14:20	LB134659
	Copper	22.1	20.0	110	80 - 120	P	02/10/2025	14:20	LB134659
	Iron	95.9	100	96	80 - 120	P	02/10/2025	14:20	LB134659
	Lead	11.5	12.0	95	80 - 120	P	02/10/2025	14:20	LB134659
	Magnesium	2010	2000	101	80 - 120	P	02/10/2025	14:20	LB134659
	Manganese	19.0	20.0	95	80 - 120	P	02/10/2025	14:20	LB134659
	Nickel	38.9	40.0	97	80 - 120	P	02/10/2025	14:20	LB134659
	Potassium	1630	2000	82	80 - 120	P	02/10/2025	14:20	LB134659
	Selenium	20.3	20.0	101	80 - 120	P	02/10/2025	14:20	LB134659
	Silver	10.3	10.0	103	80 - 120	P	02/10/2025	14:20	LB134659
	Sodium	1950	2000	98	80 - 120	P	02/10/2025	14:20	LB134659
	Thallium	39.3	40.0	98	80 - 120	P	02/10/2025	14:20	LB134659
	Vanadium	36.8	40.0	92	80 - 120	P	02/10/2025	14:20	LB134659
	Zinc	42.9	40.0	107	80 - 120	P	02/10/2025	14:20	LB134659

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9800	10000	98	90 - 110	P	02/10/2025	14:59	LB134659
	Antimony	5120	5000	102	90 - 110	P	02/10/2025	14:59	LB134659
	Arsenic	5020	5000	100	90 - 110	P	02/10/2025	14:59	LB134659
	Barium	9910	10000	99	90 - 110	P	02/10/2025	14:59	LB134659
	Beryllium	268	250	107	90 - 110	P	02/10/2025	14:59	LB134659
	Cadmium	2640	2500	106	90 - 110	P	02/10/2025	14:59	LB134659
	Calcium	23800	25000	95	90 - 110	P	02/10/2025	14:59	LB134659
	Chromium	998	1000	100	90 - 110	P	02/10/2025	14:59	LB134659
	Cobalt	2430	2500	97	90 - 110	P	02/10/2025	14:59	LB134659
	Copper	1260	1250	101	90 - 110	P	02/10/2025	14:59	LB134659
	Iron	4930	5000	99	90 - 110	P	02/10/2025	14:59	LB134659
	Lead	4860	5000	97	90 - 110	P	02/10/2025	14:59	LB134659
	Magnesium	23800	25000	95	90 - 110	P	02/10/2025	14:59	LB134659
	Manganese	2340	2500	93	90 - 110	P	02/10/2025	14:59	LB134659
	Nickel	2430	2500	97	90 - 110	P	02/10/2025	14:59	LB134659
	Potassium	25000	25000	100	90 - 110	P	02/10/2025	14:59	LB134659
	Selenium	5080	5000	102	90 - 110	P	02/10/2025	14:59	LB134659
	Silver	1240	1250	99	90 - 110	P	02/10/2025	14:59	LB134659
	Sodium	25600	25000	102	90 - 110	P	02/10/2025	14:59	LB134659
	Thallium	4990	5000	100	90 - 110	P	02/10/2025	14:59	LB134659
	Vanadium	2400	2500	96	90 - 110	P	02/10/2025	14:59	LB134659
	Zinc	2510	2500	100	90 - 110	P	02/10/2025	14:59	LB134659
CCV02	Aluminum	9130	10000	91	90 - 110	P	02/10/2025	16:05	LB134659
	Antimony	4840	5000	97	90 - 110	P	02/10/2025	16:05	LB134659
	Arsenic	4720	5000	94	90 - 110	P	02/10/2025	16:05	LB134659
	Barium	10500	10000	105	90 - 110	P	02/10/2025	16:05	LB134659
	Beryllium	268	250	107	90 - 110	P	02/10/2025	16:05	LB134659
	Cadmium	2720	2500	109	90 - 110	P	02/10/2025	16:05	LB134659
	Calcium	27300	25000	109	90 - 110	P	02/10/2025	16:05	LB134659
	Chromium	929	1000	93	90 - 110	P	02/10/2025	16:05	LB134659
	Cobalt	2260	2500	91	90 - 110	P	02/10/2025	16:05	LB134659
	Copper	1180	1250	95	90 - 110	P	02/10/2025	16:05	LB134659
	Iron	4500	5000	90	90 - 110	P	02/10/2025	16:05	LB134659
	Lead	4520	5000	90	90 - 110	P	02/10/2025	16:05	LB134659

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	26300	25000	105	90 - 110	P	02/10/2025	16:05	LB134659
	Manganese	2450	2500	98	90 - 110	P	02/10/2025	16:05	LB134659
	Nickel	2270	2500	91	90 - 110	P	02/10/2025	16:05	LB134659
	Potassium	22900	25000	92	90 - 110	P	02/10/2025	16:05	LB134659
	Selenium	4790	5000	96	90 - 110	P	02/10/2025	16:05	LB134659
	Silver	1150	1250	92	90 - 110	P	02/10/2025	16:05	LB134659
	Sodium	23800	25000	95	90 - 110	P	02/10/2025	16:05	LB134659
	Thallium	4620	5000	92	90 - 110	P	02/10/2025	16:05	LB134659
	Vanadium	2560	2500	102	90 - 110	P	02/10/2025	16:05	LB134659
	Zinc	2350	2500	94	90 - 110	P	02/10/2025	16:05	LB134659
CCV03	Aluminum	9720	10000	97	90 - 110	P	02/10/2025	16:57	LB134659
	Antimony	5160	5000	103	90 - 110	P	02/10/2025	16:57	LB134659
	Arsenic	5040	5000	101	90 - 110	P	02/10/2025	16:57	LB134659
	Barium	9210	10000	92	90 - 110	P	02/10/2025	16:57	LB134659
	Beryllium	231	250	93	90 - 110	P	02/10/2025	16:57	LB134659
	Cadmium	2370	2500	95	90 - 110	P	02/10/2025	16:57	LB134659
	Calcium	23100	25000	92	90 - 110	P	02/10/2025	16:57	LB134659
	Chromium	991	1000	99	90 - 110	P	02/10/2025	16:57	LB134659
	Cobalt	2390	2500	96	90 - 110	P	02/10/2025	16:57	LB134659
	Copper	1250	1250	100	90 - 110	P	02/10/2025	16:57	LB134659
	Iron	4770	5000	95	90 - 110	P	02/10/2025	16:57	LB134659
	Lead	4770	5000	95	90 - 110	P	02/10/2025	16:57	LB134659
	Magnesium	23000	25000	92	90 - 110	P	02/10/2025	16:57	LB134659
	Manganese	2610	2500	104	90 - 110	P	02/10/2025	16:57	LB134659
	Nickel	2390	2500	96	90 - 110	P	02/10/2025	16:57	LB134659
	Potassium	24400	25000	98	90 - 110	P	02/10/2025	16:57	LB134659
	Selenium	5140	5000	103	90 - 110	P	02/10/2025	16:57	LB134659
	Silver	1220	1250	98	90 - 110	P	02/10/2025	16:57	LB134659
	Sodium	25700	25000	103	90 - 110	P	02/10/2025	16:57	LB134659
	Thallium	4880	5000	98	90 - 110	P	02/10/2025	16:57	LB134659
	Vanadium	2330	2500	93	90 - 110	P	02/10/2025	16:57	LB134659
	Zinc	2490	2500	100	90 - 110	P	02/10/2025	16:57	LB134659
CCV04	Aluminum	9540	10000	95	90 - 110	P	02/10/2025	17:53	LB134659
	Antimony	5040	5000	101	90 - 110	P	02/10/2025	17:53	LB134659

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4910	5000	98	90 - 110	P	02/10/2025	17:53	LB134659
	Barium	9210	10000	92	90 - 110	P	02/10/2025	17:53	LB134659
	Beryllium	228	250	91	90 - 110	P	02/10/2025	17:53	LB134659
	Cadmium	2320	2500	93	90 - 110	P	02/10/2025	17:53	LB134659
	Calcium	22700	25000	91	90 - 110	P	02/10/2025	17:53	LB134659
	Chromium	972	1000	97	90 - 110	P	02/10/2025	17:53	LB134659
	Cobalt	2350	2500	94	90 - 110	P	02/10/2025	17:53	LB134659
	Copper	1230	1250	98	90 - 110	P	02/10/2025	17:53	LB134659
	Iron	4730	5000	95	90 - 110	P	02/10/2025	17:53	LB134659
	Lead	4680	5000	94	90 - 110	P	02/10/2025	17:53	LB134659
	Magnesium	22500	25000	90	90 - 110	P	02/10/2025	17:53	LB134659
	Manganese	2570	2500	103	90 - 110	P	02/10/2025	17:53	LB134659
	Nickel	2350	2500	94	90 - 110	P	02/10/2025	17:53	LB134659
	Potassium	24200	25000	97	90 - 110	P	02/10/2025	17:53	LB134659
	Selenium	5010	5000	100	90 - 110	P	02/10/2025	17:53	LB134659
	Silver	1210	1250	97	90 - 110	P	02/10/2025	17:53	LB134659
	Sodium	25300	25000	101	90 - 110	P	02/10/2025	17:53	LB134659
	Thallium	4840	5000	97	90 - 110	P	02/10/2025	17:53	LB134659
	Vanadium	2300	2500	92	90 - 110	P	02/10/2025	17:53	LB134659
	Zinc	2460	2500	99	90 - 110	P	02/10/2025	17:53	LB134659
CCV05	Aluminum	9720	10000	97	90 - 110	P	02/10/2025	18:48	LB134659
	Antimony	5170	5000	103	90 - 110	P	02/10/2025	18:48	LB134659
	Arsenic	5050	5000	101	90 - 110	P	02/10/2025	18:48	LB134659
	Barium	9470	10000	95	90 - 110	P	02/10/2025	18:48	LB134659
	Beryllium	229	250	92	90 - 110	P	02/10/2025	18:48	LB134659
	Cadmium	2360	2500	94	90 - 110	P	02/10/2025	18:48	LB134659
	Calcium	23400	25000	94	90 - 110	P	02/10/2025	18:48	LB134659
	Chromium	969	1000	97	90 - 110	P	02/10/2025	18:48	LB134659
	Cobalt	2390	2500	96	90 - 110	P	02/10/2025	18:48	LB134659
	Copper	1260	1250	101	90 - 110	P	02/10/2025	18:48	LB134659
	Iron	4760	5000	95	90 - 110	P	02/10/2025	18:48	LB134659
	Lead	4760	5000	95	90 - 110	P	02/10/2025	18:48	LB134659
	Magnesium	23200	25000	93	90 - 110	P	02/10/2025	18:48	LB134659
	Manganese	2680	2500	107	90 - 110	P	02/10/2025	18:48	LB134659

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2390	2500	96	90 - 110	P	02/10/2025	18:48	LB134659
	Potassium	24400	25000	98	90 - 110	P	02/10/2025	18:48	LB134659
	Selenium	5190	5000	104	90 - 110	P	02/10/2025	18:48	LB134659
	Silver	1200	1250	96	90 - 110	P	02/10/2025	18:48	LB134659
	Sodium	25600	25000	102	90 - 110	P	02/10/2025	18:48	LB134659
	Thallium	4870	5000	98	90 - 110	P	02/10/2025	18:48	LB134659
	Vanadium	2360	2500	94	90 - 110	P	02/10/2025	18:48	LB134659
	Zinc	2450	2500	98	90 - 110	P	02/10/2025	18:48	LB134659
CCV06	Aluminum	9650	10000	96	90 - 110	P	02/10/2025	19:40	LB134659
	Antimony	5050	5000	101	90 - 110	P	02/10/2025	19:40	LB134659
	Arsenic	4890	5000	98	90 - 110	P	02/10/2025	19:40	LB134659
	Barium	9330	10000	93	90 - 110	P	02/10/2025	19:40	LB134659
	Beryllium	227	250	91	90 - 110	P	02/10/2025	19:40	LB134659
	Cadmium	2290	2500	92	90 - 110	P	02/10/2025	19:40	LB134659
	Calcium	23200	25000	93	90 - 110	P	02/10/2025	19:40	LB134659
	Chromium	970	1000	97	90 - 110	P	02/10/2025	19:40	LB134659
	Cobalt	2340	2500	93	90 - 110	P	02/10/2025	19:40	LB134659
	Copper	1220	1250	98	90 - 110	P	02/10/2025	19:40	LB134659
	Iron	4760	5000	95	90 - 110	P	02/10/2025	19:40	LB134659
	Lead	4630	5000	93	90 - 110	P	02/10/2025	19:40	LB134659
	Magnesium	23100	25000	92	90 - 110	P	02/10/2025	19:40	LB134659
	Manganese	2640	2500	106	90 - 110	P	02/10/2025	19:40	LB134659
	Nickel	2330	2500	93	90 - 110	P	02/10/2025	19:40	LB134659
	Potassium	24500	25000	98	90 - 110	P	02/10/2025	19:40	LB134659
	Selenium	5000	5000	100	90 - 110	P	02/10/2025	19:40	LB134659
	Silver	1200	1250	96	90 - 110	P	02/10/2025	19:40	LB134659
	Sodium	25700	25000	103	90 - 110	P	02/10/2025	19:40	LB134659
	Thallium	4680	5000	94	90 - 110	P	02/10/2025	19:40	LB134659
	Vanadium	2330	2500	93	90 - 110	P	02/10/2025	19:40	LB134659
	Zinc	2420	2500	97	90 - 110	P	02/10/2025	19:40	LB134659
CCV07	Aluminum	9710	10000	97	90 - 110	P	02/10/2025	20:36	LB134659
	Antimony	5030	5000	101	90 - 110	P	02/10/2025	20:36	LB134659
	Arsenic	4890	5000	98	90 - 110	P	02/10/2025	20:36	LB134659
	Barium	9290	10000	93	90 - 110	P	02/10/2025	20:36	LB134659

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Beryllium	233	250	93	90 - 110	P	02/10/2025	20:36	LB134659
	Cadmium	2290	2500	92	90 - 110	P	02/10/2025	20:36	LB134659
	Calcium	23400	25000	93	90 - 110	P	02/10/2025	20:36	LB134659
	Chromium	968	1000	97	90 - 110	P	02/10/2025	20:36	LB134659
	Cobalt	2340	2500	93	90 - 110	P	02/10/2025	20:36	LB134659
	Copper	1220	1250	98	90 - 110	P	02/10/2025	20:36	LB134659
	Iron	4710	5000	94	90 - 110	P	02/10/2025	20:36	LB134659
	Lead	4650	5000	93	90 - 110	P	02/10/2025	20:36	LB134659
	Magnesium	23200	25000	93	90 - 110	P	02/10/2025	20:36	LB134659
	Manganese	2270	2500	91	90 - 110	P	02/10/2025	20:36	LB134659
	Nickel	2330	2500	93	90 - 110	P	02/10/2025	20:36	LB134659
	Potassium	24200	25000	97	90 - 110	P	02/10/2025	20:36	LB134659
	Selenium	5010	5000	100	90 - 110	P	02/10/2025	20:36	LB134659
	Silver	1200	1250	96	90 - 110	P	02/10/2025	20:36	LB134659
	Sodium	24900	25000	100	90 - 110	P	02/10/2025	20:36	LB134659
	Thallium	4770	5000	95	90 - 110	P	02/10/2025	20:36	LB134659
	Vanadium	2330	2500	93	90 - 110	P	02/10/2025	20:36	LB134659
	Zinc	2430	2500	97	90 - 110	P	02/10/2025	20:36	LB134659
CCV08	Aluminum	9750	10000	98	90 - 110	P	02/10/2025	21:02	LB134659
	Antimony	5080	5000	102	90 - 110	P	02/10/2025	21:02	LB134659
	Arsenic	4920	5000	98	90 - 110	P	02/10/2025	21:02	LB134659
	Barium	9300	10000	93	90 - 110	P	02/10/2025	21:02	LB134659
	Beryllium	238	250	95	90 - 110	P	02/10/2025	21:02	LB134659
	Cadmium	2320	2500	93	90 - 110	P	02/10/2025	21:02	LB134659
	Calcium	23500	25000	94	90 - 110	P	02/10/2025	21:02	LB134659
	Chromium	983	1000	98	90 - 110	P	02/10/2025	21:02	LB134659
	Cobalt	2370	2500	95	90 - 110	P	02/10/2025	21:02	LB134659
	Copper	1240	1250	99	90 - 110	P	02/10/2025	21:02	LB134659
	Iron	4860	5000	97	90 - 110	P	02/10/2025	21:02	LB134659
	Lead	4700	5000	94	90 - 110	P	02/10/2025	21:02	LB134659
	Magnesium	23200	25000	93	90 - 110	P	02/10/2025	21:02	LB134659
	Manganese	2280	2500	91	90 - 110	P	02/10/2025	21:02	LB134659
	Nickel	2360	2500	94	90 - 110	P	02/10/2025	21:02	LB134659
	Potassium	24100	25000	96	90 - 110	P	02/10/2025	21:02	LB134659

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV08	Selenium	5010	5000	100	90 - 110	P	02/10/2025	21:02	LB134659
	Silver	1220	1250	97	90 - 110	P	02/10/2025	21:02	LB134659
	Sodium	24900	25000	100	90 - 110	P	02/10/2025	21:02	LB134659
	Thallium	4780	5000	96	90 - 110	P	02/10/2025	21:02	LB134659
	Vanadium	2340	2500	94	90 - 110	P	02/10/2025	21:02	LB134659
	Zinc	2460	2500	99	90 - 110	P	02/10/2025	21:02	LB134659

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2420	2500	97	90 - 110	P	02/12/2025	12:59	LB134704
	Antimony	1010	1000	101	90 - 110	P	02/12/2025	12:59	LB134704
	Arsenic	998	1000	100	90 - 110	P	02/12/2025	12:59	LB134704
	Barium	545	520	105	90 - 110	P	02/12/2025	12:59	LB134704
	Beryllium	501	510	98	90 - 110	P	02/12/2025	12:59	LB134704
	Cadmium	505	510	99	90 - 110	P	02/12/2025	12:59	LB134704
	Calcium	9700	10000	97	90 - 110	P	02/12/2025	12:59	LB134704
	Chromium	528	520	102	90 - 110	P	02/12/2025	12:59	LB134704
	Cobalt	509	520	98	90 - 110	P	02/12/2025	12:59	LB134704
	Copper	520	510	102	90 - 110	P	02/12/2025	12:59	LB134704
	Iron	10400	10000	104	90 - 110	P	02/12/2025	12:59	LB134704
	Lead	987	1000	99	90 - 110	P	02/12/2025	12:59	LB134704
	Magnesium	6290	6000	105	90 - 110	P	02/12/2025	12:59	LB134704
	Manganese	496	520	95	90 - 110	P	02/12/2025	12:59	LB134704
	Nickel	514	530	97	90 - 110	P	02/12/2025	12:59	LB134704
	Potassium	10100	9900	102	90 - 110	P	02/12/2025	12:59	LB134704
	Selenium	1030	1000	103	90 - 110	P	02/12/2025	12:59	LB134704
	Silver	247	250	99	90 - 110	P	02/12/2025	12:59	LB134704
	Sodium	10300	10000	103	90 - 110	P	02/12/2025	12:59	LB134704
	Thallium	1020	1000	102	90 - 110	P	02/12/2025	12:59	LB134704
	Vanadium	517	500	103	90 - 110	P	02/12/2025	12:59	LB134704
	Zinc	1010	1000	101	90 - 110	P	02/12/2025	12:59	LB134704

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	95.9	100	96	80 - 120	P	02/12/2025	13:08	LB134704
	Antimony	49.5	50.0	99	80 - 120	P	02/12/2025	13:08	LB134704
	Arsenic	19.2	20.0	96	80 - 120	P	02/12/2025	13:08	LB134704
	Barium	97.5	100	98	80 - 120	P	02/12/2025	13:08	LB134704
	Beryllium	5.68	6.0	95	80 - 120	P	02/12/2025	13:08	LB134704
	Cadmium	5.79	6.0	96	80 - 120	P	02/12/2025	13:08	LB134704
	Calcium	1990	2000	99	80 - 120	P	02/12/2025	13:08	LB134704
	Chromium	10.2	10.0	102	80 - 120	P	02/12/2025	13:08	LB134704
	Cobalt	29.3	30.0	98	80 - 120	P	02/12/2025	13:08	LB134704
	Copper	21.9	20.0	110	80 - 120	P	02/12/2025	13:08	LB134704
	Iron	102	100	102	80 - 120	P	02/12/2025	13:08	LB134704
	Lead	10.4	12.0	87	80 - 120	P	02/12/2025	13:08	LB134704
	Magnesium	2110	2000	105	80 - 120	P	02/12/2025	13:08	LB134704
	Manganese	19.8	20.0	99	80 - 120	P	02/12/2025	13:08	LB134704
	Nickel	39.3	40.0	98	80 - 120	P	02/12/2025	13:08	LB134704
	Potassium	2090	2000	104	80 - 120	P	02/12/2025	13:08	LB134704
	Selenium	18.5	20.0	92	80 - 120	P	02/12/2025	13:08	LB134704
	Silver	10.2	10.0	102	80 - 120	P	02/12/2025	13:08	LB134704
	Sodium	2090	2000	104	80 - 120	P	02/12/2025	13:08	LB134704
	Thallium	39.9	40.0	100	80 - 120	P	02/12/2025	13:08	LB134704
	Vanadium	38.4	40.0	96	80 - 120	P	02/12/2025	13:08	LB134704
	Zinc	42.2	40.0	106	80 - 120	P	02/12/2025	13:08	LB134704

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9840	10000	98	90 - 110	P	02/12/2025	13:39	LB134704
	Antimony	4950	5000	99	90 - 110	P	02/12/2025	13:39	LB134704
	Arsenic	4980	5000	100	90 - 110	P	02/12/2025	13:39	LB134704
	Barium	10100	10000	101	90 - 110	P	02/12/2025	13:39	LB134704
	Beryllium	246	250	98	90 - 110	P	02/12/2025	13:39	LB134704
	Cadmium	2500	2500	100	90 - 110	P	02/12/2025	13:39	LB134704
	Calcium	25000	25000	100	90 - 110	P	02/12/2025	13:39	LB134704
	Chromium	999	1000	100	90 - 110	P	02/12/2025	13:39	LB134704
	Cobalt	2490	2500	100	90 - 110	P	02/12/2025	13:39	LB134704
	Copper	1260	1250	101	90 - 110	P	02/12/2025	13:39	LB134704
	Iron	5110	5000	102	90 - 110	P	02/12/2025	13:39	LB134704
	Lead	5000	5000	100	90 - 110	P	02/12/2025	13:39	LB134704
	Magnesium	25000	25000	100	90 - 110	P	02/12/2025	13:39	LB134704
	Manganese	2520	2500	101	90 - 110	P	02/12/2025	13:39	LB134704
	Nickel	2500	2500	100	90 - 110	P	02/12/2025	13:39	LB134704
	Potassium	25100	25000	100	90 - 110	P	02/12/2025	13:39	LB134704
	Selenium	4980	5000	100	90 - 110	P	02/12/2025	13:39	LB134704
	Silver	1240	1250	99	90 - 110	P	02/12/2025	13:39	LB134704
	Sodium	25200	25000	101	90 - 110	P	02/12/2025	13:39	LB134704
	Thallium	5020	5000	100	90 - 110	P	02/12/2025	13:39	LB134704
	Vanadium	2490	2500	100	90 - 110	P	02/12/2025	13:39	LB134704
	Zinc	2470	2500	99	90 - 110	P	02/12/2025	13:39	LB134704
CCV02	Aluminum	9980	10000	100	90 - 110	P	02/12/2025	14:29	LB134704
	Antimony	5040	5000	101	90 - 110	P	02/12/2025	14:29	LB134704
	Arsenic	5040	5000	101	90 - 110	P	02/12/2025	14:29	LB134704
	Barium	10000	10000	100	90 - 110	P	02/12/2025	14:29	LB134704
	Beryllium	247	250	99	90 - 110	P	02/12/2025	14:29	LB134704
	Cadmium	2540	2500	102	90 - 110	P	02/12/2025	14:29	LB134704
	Calcium	25100	25000	100	90 - 110	P	02/12/2025	14:29	LB134704
	Chromium	1030	1000	103	90 - 110	P	02/12/2025	14:29	LB134704
	Cobalt	2530	2500	101	90 - 110	P	02/12/2025	14:29	LB134704
	Copper	1270	1250	102	90 - 110	P	02/12/2025	14:29	LB134704
	Iron	5210	5000	104	90 - 110	P	02/12/2025	14:29	LB134704
	Lead	5060	5000	101	90 - 110	P	02/12/2025	14:29	LB134704

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	25200	25000	101	90 - 110	P	02/12/2025	14:29	LB134704
	Manganese	2500	2500	100	90 - 110	P	02/12/2025	14:29	LB134704
	Nickel	2530	2500	101	90 - 110	P	02/12/2025	14:29	LB134704
	Potassium	26000	25000	104	90 - 110	P	02/12/2025	14:29	LB134704
	Selenium	5040	5000	101	90 - 110	P	02/12/2025	14:29	LB134704
	Silver	1270	1250	102	90 - 110	P	02/12/2025	14:29	LB134704
	Sodium	26300	25000	105	90 - 110	P	02/12/2025	14:29	LB134704
	Thallium	5160	5000	103	90 - 110	P	02/12/2025	14:29	LB134704
	Vanadium	2510	2500	100	90 - 110	P	02/12/2025	14:29	LB134704
	Zinc	2520	2500	101	90 - 110	P	02/12/2025	14:29	LB134704
CCV03	Aluminum	9920	10000	99	90 - 110	P	02/12/2025	15:20	LB134704
	Antimony	4990	5000	100	90 - 110	P	02/12/2025	15:20	LB134704
	Arsenic	4960	5000	99	90 - 110	P	02/12/2025	15:20	LB134704
	Barium	10000	10000	100	90 - 110	P	02/12/2025	15:20	LB134704
	Beryllium	243	250	97	90 - 110	P	02/12/2025	15:20	LB134704
	Cadmium	2490	2500	100	90 - 110	P	02/12/2025	15:20	LB134704
	Calcium	24900	25000	100	90 - 110	P	02/12/2025	15:20	LB134704
	Chromium	1020	1000	102	90 - 110	P	02/12/2025	15:20	LB134704
	Cobalt	2490	2500	100	90 - 110	P	02/12/2025	15:20	LB134704
	Copper	1250	1250	100	90 - 110	P	02/12/2025	15:20	LB134704
	Iron	5160	5000	103	90 - 110	P	02/12/2025	15:20	LB134704
	Lead	4980	5000	100	90 - 110	P	02/12/2025	15:20	LB134704
	Magnesium	24900	25000	100	90 - 110	P	02/12/2025	15:20	LB134704
	Manganese	2470	2500	99	90 - 110	P	02/12/2025	15:20	LB134704
	Nickel	2490	2500	100	90 - 110	P	02/12/2025	15:20	LB134704
	Potassium	26000	25000	104	90 - 110	P	02/12/2025	15:20	LB134704
	Selenium	4970	5000	99	90 - 110	P	02/12/2025	15:20	LB134704
	Silver	1260	1250	101	90 - 110	P	02/12/2025	15:20	LB134704
	Sodium	26600	25000	106	90 - 110	P	02/12/2025	15:20	LB134704
	Thallium	5070	5000	101	90 - 110	P	02/12/2025	15:20	LB134704
	Vanadium	2490	2500	99	90 - 110	P	02/12/2025	15:20	LB134704
	Zinc	2510	2500	100	90 - 110	P	02/12/2025	15:20	LB134704
CCV04	Aluminum	9770	10000	98	90 - 110	P	02/12/2025	16:13	LB134704
	Antimony	4820	5000	96	90 - 110	P	02/12/2025	16:13	LB134704

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4870	5000	97	90 - 110	P	02/12/2025	16:13	LB134704
	Barium	9830	10000	98	90 - 110	P	02/12/2025	16:13	LB134704
	Beryllium	245	250	98	90 - 110	P	02/12/2025	16:13	LB134704
	Cadmium	2500	2500	100	90 - 110	P	02/12/2025	16:13	LB134704
	Calcium	24900	25000	100	90 - 110	P	02/12/2025	16:13	LB134704
	Chromium	1020	1000	102	90 - 110	P	02/12/2025	16:13	LB134704
	Cobalt	2470	2500	99	90 - 110	P	02/12/2025	16:13	LB134704
	Copper	1240	1250	99	90 - 110	P	02/12/2025	16:13	LB134704
	Iron	5120	5000	102	90 - 110	P	02/12/2025	16:13	LB134704
	Lead	4970	5000	99	90 - 110	P	02/12/2025	16:13	LB134704
	Magnesium	25200	25000	101	90 - 110	P	02/12/2025	16:13	LB134704
	Manganese	2480	2500	99	90 - 110	P	02/12/2025	16:13	LB134704
	Nickel	2490	2500	100	90 - 110	P	02/12/2025	16:13	LB134704
	Potassium	25000	25000	100	90 - 110	P	02/12/2025	16:13	LB134704
	Selenium	4810	5000	96	90 - 110	P	02/12/2025	16:13	LB134704
	Silver	1250	1250	100	90 - 110	P	02/12/2025	16:13	LB134704
	Sodium	26200	25000	105	90 - 110	P	02/12/2025	16:13	LB134704
	Thallium	4760	5000	95	90 - 110	P	02/12/2025	16:13	LB134704
	Vanadium	2470	2500	99	90 - 110	P	02/12/2025	16:13	LB134704
	Zinc	2470	2500	99	90 - 110	P	02/12/2025	16:13	LB134704
CCV05	Aluminum	9750	10000	98	90 - 110	P	02/12/2025	17:04	LB134704
	Antimony	4870	5000	97	90 - 110	P	02/12/2025	17:04	LB134704
	Arsenic	4890	5000	98	90 - 110	P	02/12/2025	17:04	LB134704
	Barium	9700	10000	97	90 - 110	P	02/12/2025	17:04	LB134704
	Beryllium	251	250	100	90 - 110	P	02/12/2025	17:04	LB134704
	Cadmium	2490	2500	100	90 - 110	P	02/12/2025	17:04	LB134704
	Calcium	24700	25000	99	90 - 110	P	02/12/2025	17:04	LB134704
	Chromium	1020	1000	102	90 - 110	P	02/12/2025	17:04	LB134704
	Cobalt	2480	2500	99	90 - 110	P	02/12/2025	17:04	LB134704
	Copper	1250	1250	100	90 - 110	P	02/12/2025	17:04	LB134704
	Iron	5000	5000	100	90 - 110	P	02/12/2025	17:04	LB134704
	Lead	4970	5000	100	90 - 110	P	02/12/2025	17:04	LB134704
	Magnesium	25000	25000	100	90 - 110	P	02/12/2025	17:04	LB134704
	Manganese	2460	2500	98	90 - 110	P	02/12/2025	17:04	LB134704

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2490	2500	100	90 - 110	P	02/12/2025	17:04	LB134704
	Potassium	24200	25000	97	90 - 110	P	02/12/2025	17:04	LB134704
	Selenium	4840	5000	97	90 - 110	P	02/12/2025	17:04	LB134704
	Silver	1250	1250	100	90 - 110	P	02/12/2025	17:04	LB134704
	Sodium	24800	25000	99	90 - 110	P	02/12/2025	17:04	LB134704
	Thallium	4720	5000	94	90 - 110	P	02/12/2025	17:04	LB134704
	Vanadium	2450	2500	98	90 - 110	P	02/12/2025	17:04	LB134704
	Zinc	2480	2500	99	90 - 110	P	02/12/2025	17:04	LB134704
CCV06	Aluminum	9860	10000	99	90 - 110	P	02/12/2025	17:55	LB134704
	Antimony	4890	5000	98	90 - 110	P	02/12/2025	17:55	LB134704
	Arsenic	4910	5000	98	90 - 110	P	02/12/2025	17:55	LB134704
	Barium	9930	10000	99	90 - 110	P	02/12/2025	17:55	LB134704
	Beryllium	250	250	100	90 - 110	P	02/12/2025	17:55	LB134704
	Cadmium	2500	2500	100	90 - 110	P	02/12/2025	17:55	LB134704
	Calcium	25200	25000	101	90 - 110	P	02/12/2025	17:55	LB134704
	Chromium	1020	1000	102	90 - 110	P	02/12/2025	17:55	LB134704
	Cobalt	2490	2500	99	90 - 110	P	02/12/2025	17:55	LB134704
	Copper	1250	1250	100	90 - 110	P	02/12/2025	17:55	LB134704
	Iron	5180	5000	104	90 - 110	P	02/12/2025	17:55	LB134704
	Lead	4980	5000	100	90 - 110	P	02/12/2025	17:55	LB134704
	Magnesium	25400	25000	102	90 - 110	P	02/12/2025	17:55	LB134704
	Manganese	2530	2500	101	90 - 110	P	02/12/2025	17:55	LB134704
	Nickel	2500	2500	100	90 - 110	P	02/12/2025	17:55	LB134704
	Potassium	25100	25000	100	90 - 110	P	02/12/2025	17:55	LB134704
	Selenium	4860	5000	97	90 - 110	P	02/12/2025	17:55	LB134704
	Silver	1260	1250	101	90 - 110	P	02/12/2025	17:55	LB134704
	Sodium	25700	25000	103	90 - 110	P	02/12/2025	17:55	LB134704
	Thallium	4740	5000	95	90 - 110	P	02/12/2025	17:55	LB134704
	Vanadium	2510	2500	100	90 - 110	P	02/12/2025	17:55	LB134704
	Zinc	2490	2500	99	90 - 110	P	02/12/2025	17:55	LB134704
CCV07	Aluminum	9920	10000	99	90 - 110	P	02/12/2025	18:34	LB134704
	Antimony	5000	5000	100	90 - 110	P	02/12/2025	18:34	LB134704
	Arsenic	5020	5000	100	90 - 110	P	02/12/2025	18:34	LB134704
	Barium	9970	10000	100	90 - 110	P	02/12/2025	18:34	LB134704

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Beryllium	245	250	98	90 - 110	P	02/12/2025	18:34	LB134704
	Cadmium	2520	2500	101	90 - 110	P	02/12/2025	18:34	LB134704
	Calcium	24900	25000	100	90 - 110	P	02/12/2025	18:34	LB134704
	Chromium	1020	1000	102	90 - 110	P	02/12/2025	18:34	LB134704
	Cobalt	2500	2500	100	90 - 110	P	02/12/2025	18:34	LB134704
	Copper	1270	1250	102	90 - 110	P	02/12/2025	18:34	LB134704
	Iron	5160	5000	103	90 - 110	P	02/12/2025	18:34	LB134704
	Lead	5020	5000	100	90 - 110	P	02/12/2025	18:34	LB134704
	Magnesium	25100	25000	100	90 - 110	P	02/12/2025	18:34	LB134704
	Manganese	2480	2500	99	90 - 110	P	02/12/2025	18:34	LB134704
	Nickel	2510	2500	100	90 - 110	P	02/12/2025	18:34	LB134704
	Potassium	25400	25000	102	90 - 110	P	02/12/2025	18:34	LB134704
	Selenium	5000	5000	100	90 - 110	P	02/12/2025	18:34	LB134704
	Silver	1260	1250	101	90 - 110	P	02/12/2025	18:34	LB134704
	Sodium	26100	25000	105	90 - 110	P	02/12/2025	18:34	LB134704
	Thallium	4800	5000	96	90 - 110	P	02/12/2025	18:34	LB134704
	Vanadium	2490	2500	100	90 - 110	P	02/12/2025	18:34	LB134704
	Zinc	2470	2500	99	90 - 110	P	02/12/2025	18:34	LB134704

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CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.19	0.2	95	40 - 160	CV	02/03/2025	18:11	LB134542
CRI01	Aluminum	98.1	100	98	40 - 160	P	02/10/2025	14:31	LB134659
	Antimony	52.3	50.0	104	40 - 160	P	02/10/2025	14:31	LB134659
	Arsenic	21.7	20.0	108	40 - 160	P	02/10/2025	14:31	LB134659
	Barium	88.7	100	89	40 - 160	P	02/10/2025	14:31	LB134659
	Beryllium	5.76	6.0	96	40 - 160	P	02/10/2025	14:31	LB134659
	Cadmium	5.75	6.0	96	40 - 160	P	02/10/2025	14:31	LB134659
	Calcium	1940	2000	97	40 - 160	P	02/10/2025	14:31	LB134659
	Chromium	10.1	10.0	101	40 - 160	P	02/10/2025	14:31	LB134659
	Cobalt	29.2	30.0	97	40 - 160	P	02/10/2025	14:31	LB134659
	Copper	21.6	20.0	108	40 - 160	P	02/10/2025	14:31	LB134659
	Iron	100	100	100	40 - 160	P	02/10/2025	14:31	LB134659
	Lead	11.5	12.0	96	40 - 160	P	02/10/2025	14:31	LB134659
	Magnesium	2050	2000	103	40 - 160	P	02/10/2025	14:31	LB134659
	Manganese	19.2	20.0	96	40 - 160	P	02/10/2025	14:31	LB134659
	Nickel	38.8	40.0	97	40 - 160	P	02/10/2025	14:31	LB134659
	Potassium	1740	2000	87	40 - 160	P	02/10/2025	14:31	LB134659
	Selenium	19.7	20.0	99	40 - 160	P	02/10/2025	14:31	LB134659
	Silver	10.6	10.0	106	40 - 160	P	02/10/2025	14:31	LB134659
	Sodium	2000	2000	100	40 - 160	P	02/10/2025	14:31	LB134659
	Thallium	38.9	40.0	97	40 - 160	P	02/10/2025	14:31	LB134659
	Vanadium	37.0	40.0	92	40 - 160	P	02/10/2025	14:31	LB134659
	Zinc	42.9	40.0	107	40 - 160	P	02/10/2025	14:31	LB134659
CRI01	Aluminum	91.2	100	91	40 - 160	P	02/12/2025	13:17	LB134704
	Antimony	51.2	50.0	102	40 - 160	P	02/12/2025	13:17	LB134704
	Arsenic	19.8	20.0	99	40 - 160	P	02/12/2025	13:17	LB134704
	Barium	100.0	100	100	40 - 160	P	02/12/2025	13:17	LB134704
	Beryllium	5.74	6.0	96	40 - 160	P	02/12/2025	13:17	LB134704
	Cadmium	5.89	6.0	98	40 - 160	P	02/12/2025	13:17	LB134704
	Calcium	2030	2000	101	40 - 160	P	02/12/2025	13:17	LB134704
	Chromium	10.1	10.0	101	40 - 160	P	02/12/2025	13:17	LB134704
	Cobalt	30.0	30.0	100	40 - 160	P	02/12/2025	13:17	LB134704
	Copper	22.2	20.0	111	40 - 160	P	02/12/2025	13:17	LB134704
	Iron	102	100	102	40 - 160	P	02/12/2025	13:17	LB134704
	Lead	11.8	12.0	98	40 - 160	P	02/12/2025	13:17	LB134704

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Metals

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CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Magnesium	2140	2000	107	40 - 160	P	02/12/2025	13:17	LB134704
	Manganese	20.1	20.0	101	40 - 160	P	02/12/2025	13:17	LB134704
	Nickel	40.4	40.0	101	40 - 160	P	02/12/2025	13:17	LB134704
	Potassium	2070	2000	104	40 - 160	P	02/12/2025	13:17	LB134704
	Selenium	19.5	20.0	98	40 - 160	P	02/12/2025	13:17	LB134704
	Silver	10.4	10.0	104	40 - 160	P	02/12/2025	13:17	LB134704
	Sodium	2070	2000	103	40 - 160	P	02/12/2025	13:17	LB134704
	Thallium	40.8	40.0	102	40 - 160	P	02/12/2025	13:17	LB134704
	Vanadium	39.2	40.0	98	40 - 160	P	02/12/2025	13:17	LB134704
	Zinc	43.0	40.0	108	40 - 160	P	02/12/2025	13:17	LB134704

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB82	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	18:04	LB134542

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB14	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	18:09	LB134542
CCB15	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	18:37	LB134542
CCB16	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	19:04	LB134542
CCB17	Mercury	0.20	+/-0.20	U	0.20	CV	02/03/2025	19:29	LB134542

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	02/10/2025	14:26	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	14:26	LB134659
	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	14:26	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	14:26	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	14:26	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	14:26	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	14:26	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	14:26	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	14:26	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	14:26	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	14:26	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	14:26	LB134659
	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	14:26	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	14:26	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	14:26	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	14:26	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	14:26	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	14:26	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	14:26	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	14:26	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	14:26	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	14:26	LB134659

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	02/10/2025	15:03	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	15:03	LB134659
	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	15:03	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	15:03	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	15:03	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	15:03	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	15:03	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	15:03	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	15:03	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	15:03	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	15:03	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	15:03	LB134659
	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	15:03	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	15:03	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	15:03	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	15:03	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	15:03	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	15:03	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	15:03	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	15:03	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	15:03	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	15:03	LB134659
CCB02	Aluminum	100	+/-100	U	100	P	02/10/2025	16:08	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	16:08	LB134659
	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	16:08	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	16:08	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	16:08	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	16:08	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	16:08	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	16:08	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	16:08	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	16:08	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	16:08	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	16:08	LB134659
	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	16:08	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	16:08	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	16:08	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	16:08	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	16:08	LB134659

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	16:08	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	16:08	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	16:08	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	16:08	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	16:08	LB134659
CCB03	Aluminum	100	+/-100	U	100	P	02/10/2025	17:06	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	17:06	LB134659
	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	17:06	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	17:06	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	17:06	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	17:06	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	17:06	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	17:06	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	17:06	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	17:06	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	17:06	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	17:06	LB134659
	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	17:06	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	17:06	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	17:06	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	17:06	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	17:06	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	17:06	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	17:06	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	17:06	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	17:06	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	17:06	LB134659
CCB04	Aluminum	100	+/-100	U	100	P	02/10/2025	18:00	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	18:00	LB134659
	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	18:00	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	18:00	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	18:00	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	18:00	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	18:00	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	18:00	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	18:00	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	18:00	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	18:00	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	18:00	LB134659

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	18:00	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	18:00	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	18:00	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	18:00	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	18:00	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	18:00	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	18:00	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	18:00	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	18:00	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	18:00	LB134659
CCB05	Aluminum	100	+/-100	U	100	P	02/10/2025	18:52	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	18:52	LB134659
	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	18:52	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	18:52	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	18:52	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	18:52	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	18:52	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	18:52	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	18:52	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	18:52	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	18:52	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	18:52	LB134659
	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	18:52	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	18:52	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	18:52	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	18:52	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	18:52	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	18:52	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	18:52	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	18:52	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	18:52	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	18:52	LB134659
CCB06	Aluminum	100	+/-100	U	100	P	02/10/2025	19:45	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	19:45	LB134659
	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	19:45	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	19:45	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	19:45	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	19:45	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	19:45	LB134659

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	19:45	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	19:45	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	19:45	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	19:45	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	19:45	LB134659
	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	19:45	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	19:45	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	19:45	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	19:45	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	19:45	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	19:45	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	19:45	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	19:45	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	19:45	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	19:45	LB134659
CCB07	Aluminum	100	+/-100	U	100	P	02/10/2025	20:41	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	20:41	LB134659
	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	20:41	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	20:41	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	20:41	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	20:41	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	20:41	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	20:41	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	20:41	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	20:41	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	20:41	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	20:41	LB134659
	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	20:41	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	20:41	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	20:41	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	20:41	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	20:41	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	20:41	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	20:41	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	20:41	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	20:41	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	20:41	LB134659
CCB08	Aluminum	100	+/-100	U	100	P	02/10/2025	21:06	LB134659
	Antimony	50.0	+/-50.0	U	50.0	P	02/10/2025	21:06	LB134659

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	02/10/2025	21:06	LB134659
	Barium	100	+/-100	U	100	P	02/10/2025	21:06	LB134659
	Beryllium	6.00	+/-6.00	U	6.00	P	02/10/2025	21:06	LB134659
	Cadmium	6.00	+/-6.00	U	6.00	P	02/10/2025	21:06	LB134659
	Calcium	2000	+/-2000	U	2000	P	02/10/2025	21:06	LB134659
	Chromium	10.0	+/-10.0	U	10.0	P	02/10/2025	21:06	LB134659
	Cobalt	30.0	+/-30.0	U	30.0	P	02/10/2025	21:06	LB134659
	Copper	20.0	+/-20.0	U	20.0	P	02/10/2025	21:06	LB134659
	Iron	100	+/-100	U	100	P	02/10/2025	21:06	LB134659
	Lead	12.0	+/-12.0	U	12.0	P	02/10/2025	21:06	LB134659
	Magnesium	2000	+/-2000	U	2000	P	02/10/2025	21:06	LB134659
	Manganese	20.0	+/-20.0	U	20.0	P	02/10/2025	21:06	LB134659
	Nickel	40.0	+/-40.0	U	40.0	P	02/10/2025	21:06	LB134659
	Potassium	2000	+/-2000	U	2000	P	02/10/2025	21:06	LB134659
	Selenium	20.0	+/-20.0	U	20.0	P	02/10/2025	21:06	LB134659
	Silver	10.0	+/-10.0	U	10.0	P	02/10/2025	21:06	LB134659
	Sodium	2000	+/-2000	U	2000	P	02/10/2025	21:06	LB134659
	Thallium	40.0	+/-40.0	U	40.0	P	02/10/2025	21:06	LB134659
	Vanadium	40.0	+/-40.0	U	40.0	P	02/10/2025	21:06	LB134659
	Zinc	40.0	+/-40.0	U	40.0	P	02/10/2025	21:06	LB134659

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	02/12/2025	13:12	LB134704
	Antimony	50.0	+/-50.0	U	50.0	P	02/12/2025	13:12	LB134704
	Arsenic	20.0	+/-20.0	U	20.0	P	02/12/2025	13:12	LB134704
	Barium	100	+/-100	U	100	P	02/12/2025	13:12	LB134704
	Beryllium	6.00	+/-6.00	U	6.00	P	02/12/2025	13:12	LB134704
	Cadmium	6.00	+/-6.00	U	6.00	P	02/12/2025	13:12	LB134704
	Calcium	2000	+/-2000	U	2000	P	02/12/2025	13:12	LB134704
	Chromium	10.0	+/-10.0	U	10.0	P	02/12/2025	13:12	LB134704
	Cobalt	30.0	+/-30.0	U	30.0	P	02/12/2025	13:12	LB134704
	Copper	20.0	+/-20.0	U	20.0	P	02/12/2025	13:12	LB134704
	Iron	100	+/-100	U	100	P	02/12/2025	13:12	LB134704
	Lead	12.0	+/-12.0	U	12.0	P	02/12/2025	13:12	LB134704
	Magnesium	2000	+/-2000	U	2000	P	02/12/2025	13:12	LB134704
	Manganese	20.0	+/-20.0	U	20.0	P	02/12/2025	13:12	LB134704
	Nickel	40.0	+/-40.0	U	40.0	P	02/12/2025	13:12	LB134704
	Potassium	2000	+/-2000	U	2000	P	02/12/2025	13:12	LB134704
	Selenium	20.0	+/-20.0	U	20.0	P	02/12/2025	13:12	LB134704
	Silver	10.0	+/-10.0	U	10.0	P	02/12/2025	13:12	LB134704
	Sodium	2000	+/-2000	U	2000	P	02/12/2025	13:12	LB134704
	Thallium	40.0	+/-40.0	U	40.0	P	02/12/2025	13:12	LB134704
	Vanadium	40.0	+/-40.0	U	40.0	P	02/12/2025	13:12	LB134704
	Zinc	40.0	+/-40.0	U	40.0	P	02/12/2025	13:12	LB134704

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	02/12/2025	13:43	LB134704
	Antimony	50.0	+/-50.0	U	50.0	P	02/12/2025	13:43	LB134704
	Arsenic	20.0	+/-20.0	U	20.0	P	02/12/2025	13:43	LB134704
	Barium	100	+/-100	U	100	P	02/12/2025	13:43	LB134704
	Beryllium	6.00	+/-6.00	U	6.00	P	02/12/2025	13:43	LB134704
	Cadmium	6.00	+/-6.00	U	6.00	P	02/12/2025	13:43	LB134704
	Calcium	2000	+/-2000	U	2000	P	02/12/2025	13:43	LB134704
	Chromium	10.0	+/-10.0	U	10.0	P	02/12/2025	13:43	LB134704
	Cobalt	30.0	+/-30.0	U	30.0	P	02/12/2025	13:43	LB134704
	Copper	20.0	+/-20.0	U	20.0	P	02/12/2025	13:43	LB134704
	Iron	100	+/-100	U	100	P	02/12/2025	13:43	LB134704
	Lead	12.0	+/-12.0	U	12.0	P	02/12/2025	13:43	LB134704
	Magnesium	2000	+/-2000	U	2000	P	02/12/2025	13:43	LB134704
	Manganese	20.0	+/-20.0	U	20.0	P	02/12/2025	13:43	LB134704
	Nickel	40.0	+/-40.0	U	40.0	P	02/12/2025	13:43	LB134704
	Potassium	2000	+/-2000	U	2000	P	02/12/2025	13:43	LB134704
	Selenium	20.0	+/-20.0	U	20.0	P	02/12/2025	13:43	LB134704
	Silver	10.0	+/-10.0	U	10.0	P	02/12/2025	13:43	LB134704
	Sodium	2000	+/-2000	U	2000	P	02/12/2025	13:43	LB134704
	Thallium	40.0	+/-40.0	U	40.0	P	02/12/2025	13:43	LB134704
	Vanadium	40.0	+/-40.0	U	40.0	P	02/12/2025	13:43	LB134704
	Zinc	40.0	+/-40.0	U	40.0	P	02/12/2025	13:43	LB134704
CCB02	Aluminum	100	+/-100	U	100	P	02/12/2025	14:33	LB134704
	Antimony	50.0	+/-50.0	U	50.0	P	02/12/2025	14:33	LB134704
	Arsenic	20.0	+/-20.0	U	20.0	P	02/12/2025	14:33	LB134704
	Barium	100	+/-100	U	100	P	02/12/2025	14:33	LB134704
	Beryllium	6.00	+/-6.00	U	6.00	P	02/12/2025	14:33	LB134704
	Cadmium	6.00	+/-6.00	U	6.00	P	02/12/2025	14:33	LB134704
	Calcium	2000	+/-2000	U	2000	P	02/12/2025	14:33	LB134704
	Chromium	10.0	+/-10.0	U	10.0	P	02/12/2025	14:33	LB134704
	Cobalt	30.0	+/-30.0	U	30.0	P	02/12/2025	14:33	LB134704
	Copper	20.0	+/-20.0	U	20.0	P	02/12/2025	14:33	LB134704
	Iron	100	+/-100	U	100	P	02/12/2025	14:33	LB134704
	Lead	12.0	+/-12.0	U	12.0	P	02/12/2025	14:33	LB134704
	Magnesium	2000	+/-2000	U	2000	P	02/12/2025	14:33	LB134704
	Manganese	20.0	+/-20.0	U	20.0	P	02/12/2025	14:33	LB134704
	Nickel	40.0	+/-40.0	U	40.0	P	02/12/2025	14:33	LB134704
	Potassium	2000	+/-2000	U	2000	P	02/12/2025	14:33	LB134704
	Selenium	20.0	+/-20.0	U	20.0	P	02/12/2025	14:33	LB134704

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	02/12/2025	14:33	LB134704
	Sodium	2000	+/-2000	U	2000	P	02/12/2025	14:33	LB134704
	Thallium	40.0	+/-40.0	U	40.0	P	02/12/2025	14:33	LB134704
	Vanadium	40.0	+/-40.0	U	40.0	P	02/12/2025	14:33	LB134704
	Zinc	40.0	+/-40.0	U	40.0	P	02/12/2025	14:33	LB134704
CCB03	Aluminum	100	+/-100	U	100	P	02/12/2025	15:24	LB134704
	Antimony	50.0	+/-50.0	U	50.0	P	02/12/2025	15:24	LB134704
	Arsenic	20.0	+/-20.0	U	20.0	P	02/12/2025	15:24	LB134704
	Barium	100	+/-100	U	100	P	02/12/2025	15:24	LB134704
	Beryllium	6.00	+/-6.00	U	6.00	P	02/12/2025	15:24	LB134704
	Cadmium	6.00	+/-6.00	U	6.00	P	02/12/2025	15:24	LB134704
	Calcium	2000	+/-2000	U	2000	P	02/12/2025	15:24	LB134704
	Chromium	10.0	+/-10.0	U	10.0	P	02/12/2025	15:24	LB134704
	Cobalt	30.0	+/-30.0	U	30.0	P	02/12/2025	15:24	LB134704
	Copper	20.0	+/-20.0	U	20.0	P	02/12/2025	15:24	LB134704
	Iron	100	+/-100	U	100	P	02/12/2025	15:24	LB134704
	Lead	12.0	+/-12.0	U	12.0	P	02/12/2025	15:24	LB134704
	Magnesium	2000	+/-2000	U	2000	P	02/12/2025	15:24	LB134704
	Manganese	20.0	+/-20.0	U	20.0	P	02/12/2025	15:24	LB134704
	Nickel	40.0	+/-40.0	U	40.0	P	02/12/2025	15:24	LB134704
	Potassium	2000	+/-2000	U	2000	P	02/12/2025	15:24	LB134704
	Selenium	20.0	+/-20.0	U	20.0	P	02/12/2025	15:24	LB134704
	Silver	10.0	+/-10.0	U	10.0	P	02/12/2025	15:24	LB134704
	Sodium	559	+/-2000	J	2000	P	02/12/2025	15:24	LB134704
	Thallium	40.0	+/-40.0	U	40.0	P	02/12/2025	15:24	LB134704
	Vanadium	40.0	+/-40.0	U	40.0	P	02/12/2025	15:24	LB134704
	Zinc	40.0	+/-40.0	U	40.0	P	02/12/2025	15:24	LB134704
CCB04	Aluminum	100	+/-100	U	100	P	02/12/2025	16:17	LB134704
	Antimony	50.0	+/-50.0	U	50.0	P	02/12/2025	16:17	LB134704
	Arsenic	20.0	+/-20.0	U	20.0	P	02/12/2025	16:17	LB134704
	Barium	100	+/-100	U	100	P	02/12/2025	16:17	LB134704
	Beryllium	6.00	+/-6.00	U	6.00	P	02/12/2025	16:17	LB134704
	Cadmium	6.00	+/-6.00	U	6.00	P	02/12/2025	16:17	LB134704
	Calcium	2000	+/-2000	U	2000	P	02/12/2025	16:17	LB134704
	Chromium	10.0	+/-10.0	U	10.0	P	02/12/2025	16:17	LB134704
	Cobalt	30.0	+/-30.0	U	30.0	P	02/12/2025	16:17	LB134704
	Copper	20.0	+/-20.0	U	20.0	P	02/12/2025	16:17	LB134704
	Iron	100	+/-100	U	100	P	02/12/2025	16:17	LB134704
	Lead	12.0	+/-12.0	U	12.0	P	02/12/2025	16:17	LB134704

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	02/12/2025	16:17	LB134704
	Manganese	20.0	+/-20.0	U	20.0	P	02/12/2025	16:17	LB134704
	Nickel	40.0	+/-40.0	U	40.0	P	02/12/2025	16:17	LB134704
	Potassium	2000	+/-2000	U	2000	P	02/12/2025	16:17	LB134704
	Selenium	20.0	+/-20.0	U	20.0	P	02/12/2025	16:17	LB134704
	Silver	10.0	+/-10.0	U	10.0	P	02/12/2025	16:17	LB134704
	Sodium	505	+/-2000	J	2000	P	02/12/2025	16:17	LB134704
	Thallium	40.0	+/-40.0	U	40.0	P	02/12/2025	16:17	LB134704
	Vanadium	40.0	+/-40.0	U	40.0	P	02/12/2025	16:17	LB134704
	Zinc	4.78	+/-40.0	J	40.0	P	02/12/2025	16:17	LB134704
CCB05	Aluminum	100	+/-100	U	100	P	02/12/2025	17:08	LB134704
	Antimony	50.0	+/-50.0	U	50.0	P	02/12/2025	17:08	LB134704
	Arsenic	20.0	+/-20.0	U	20.0	P	02/12/2025	17:08	LB134704
	Barium	100	+/-100	U	100	P	02/12/2025	17:08	LB134704
	Beryllium	6.00	+/-6.00	U	6.00	P	02/12/2025	17:08	LB134704
	Cadmium	6.00	+/-6.00	U	6.00	P	02/12/2025	17:08	LB134704
	Calcium	2000	+/-2000	U	2000	P	02/12/2025	17:08	LB134704
	Chromium	10.0	+/-10.0	U	10.0	P	02/12/2025	17:08	LB134704
	Cobalt	30.0	+/-30.0	U	30.0	P	02/12/2025	17:08	LB134704
	Copper	20.0	+/-20.0	U	20.0	P	02/12/2025	17:08	LB134704
	Iron	100	+/-100	U	100	P	02/12/2025	17:08	LB134704
	Lead	12.0	+/-12.0	U	12.0	P	02/12/2025	17:08	LB134704
	Magnesium	2000	+/-2000	U	2000	P	02/12/2025	17:08	LB134704
	Manganese	20.0	+/-20.0	U	20.0	P	02/12/2025	17:08	LB134704
	Nickel	40.0	+/-40.0	U	40.0	P	02/12/2025	17:08	LB134704
	Potassium	2000	+/-2000	U	2000	P	02/12/2025	17:08	LB134704
	Selenium	20.0	+/-20.0	U	20.0	P	02/12/2025	17:08	LB134704
	Silver	10.0	+/-10.0	U	10.0	P	02/12/2025	17:08	LB134704
	Sodium	2000	+/-2000	U	2000	P	02/12/2025	17:08	LB134704
	Thallium	40.0	+/-40.0	U	40.0	P	02/12/2025	17:08	LB134704
	Vanadium	40.0	+/-40.0	U	40.0	P	02/12/2025	17:08	LB134704
	Zinc	40.0	+/-40.0	U	40.0	P	02/12/2025	17:08	LB134704
CCB06	Aluminum	100	+/-100	U	100	P	02/12/2025	17:59	LB134704
	Antimony	50.0	+/-50.0	U	50.0	P	02/12/2025	17:59	LB134704
	Arsenic	20.0	+/-20.0	U	20.0	P	02/12/2025	17:59	LB134704
	Barium	100	+/-100	U	100	P	02/12/2025	17:59	LB134704
	Beryllium	6.00	+/-6.00	U	6.00	P	02/12/2025	17:59	LB134704
	Cadmium	6.00	+/-6.00	U	6.00	P	02/12/2025	17:59	LB134704
	Calcium	2000	+/-2000	U	2000	P	02/12/2025	17:59	LB134704

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	02/12/2025	17:59	LB134704
	Cobalt	30.0	+/-30.0	U	30.0	P	02/12/2025	17:59	LB134704
	Copper	20.0	+/-20.0	U	20.0	P	02/12/2025	17:59	LB134704
	Iron	100	+/-100	U	100	P	02/12/2025	17:59	LB134704
	Lead	12.0	+/-12.0	U	12.0	P	02/12/2025	17:59	LB134704
	Magnesium	2000	+/-2000	U	2000	P	02/12/2025	17:59	LB134704
	Manganese	20.0	+/-20.0	U	20.0	P	02/12/2025	17:59	LB134704
	Nickel	40.0	+/-40.0	U	40.0	P	02/12/2025	17:59	LB134704
	Potassium	2000	+/-2000	U	2000	P	02/12/2025	17:59	LB134704
	Selenium	20.0	+/-20.0	U	20.0	P	02/12/2025	17:59	LB134704
	Silver	10.0	+/-10.0	U	10.0	P	02/12/2025	17:59	LB134704
	Sodium	2000	+/-2000	U	2000	P	02/12/2025	17:59	LB134704
	Thallium	40.0	+/-40.0	U	40.0	P	02/12/2025	17:59	LB134704
	Vanadium	40.0	+/-40.0	U	40.0	P	02/12/2025	17:59	LB134704
	Zinc	40.0	+/-40.0	U	40.0	P	02/12/2025	17:59	LB134704
CCB07	Aluminum	100	+/-100	U	100	P	02/12/2025	18:38	LB134704
	Antimony	50.0	+/-50.0	U	50.0	P	02/12/2025	18:38	LB134704
	Arsenic	20.0	+/-20.0	U	20.0	P	02/12/2025	18:38	LB134704
	Barium	100	+/-100	U	100	P	02/12/2025	18:38	LB134704
	Beryllium	6.00	+/-6.00	U	6.00	P	02/12/2025	18:38	LB134704
	Cadmium	6.00	+/-6.00	U	6.00	P	02/12/2025	18:38	LB134704
	Calcium	2000	+/-2000	U	2000	P	02/12/2025	18:38	LB134704
	Chromium	10.0	+/-10.0	U	10.0	P	02/12/2025	18:38	LB134704
	Cobalt	30.0	+/-30.0	U	30.0	P	02/12/2025	18:38	LB134704
	Copper	20.0	+/-20.0	U	20.0	P	02/12/2025	18:38	LB134704
	Iron	100	+/-100	U	100	P	02/12/2025	18:38	LB134704
	Lead	12.0	+/-12.0	U	12.0	P	02/12/2025	18:38	LB134704
	Magnesium	2000	+/-2000	U	2000	P	02/12/2025	18:38	LB134704
	Manganese	20.0	+/-20.0	U	20.0	P	02/12/2025	18:38	LB134704
	Nickel	40.0	+/-40.0	U	40.0	P	02/12/2025	18:38	LB134704
	Potassium	2000	+/-2000	U	2000	P	02/12/2025	18:38	LB134704
	Selenium	20.0	+/-20.0	U	20.0	P	02/12/2025	18:38	LB134704
	Silver	10.0	+/-10.0	U	10.0	P	02/12/2025	18:38	LB134704
	Sodium	2000	+/-2000	U	2000	P	02/12/2025	18:38	LB134704
	Thallium	40.0	+/-40.0	U	40.0	P	02/12/2025	18:38	LB134704
	Vanadium	40.0	+/-40.0	U	40.0	P	02/12/2025	18:38	LB134704
	Zinc	40.0	+/-40.0	U	40.0	P	02/12/2025	18:38	LB134704

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Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166520BL		**SOLID**		**Batch Number:**	**PB166520**		**Prep Date:**	**02/03/2025**	
	Mercury	0.013	<0.013	U	0.013	CV	02/03/2025	18:18	LB134542

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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166414BL		**SOLID**		**Batch Number:**	**PB166414**		**Prep Date:**	**01/31/2025**	
	Aluminum	4.27	<4.27	U	4.27	P	02/12/2025	18:08	LB134704
	Antimony	2.14	<2.14	U	2.14	P	02/12/2025	18:08	LB134704
	Arsenic	0.86	<0.86	U	0.86	P	02/12/2025	18:08	LB134704
	Barium	4.27	<4.27	U	4.27	P	02/12/2025	18:08	LB134704
	Beryllium	0.26	<0.26	U	0.26	P	02/12/2025	18:08	LB134704
	Cadmium	0.26	<0.26	U	0.26	P	02/12/2025	18:08	LB134704
	Calcium	85.5	<85.5	U	85.5	P	02/12/2025	18:08	LB134704
	Chromium	0.43	<0.43	U	0.43	P	02/12/2025	18:08	LB134704
	Cobalt	1.28	<1.28	U	1.28	P	02/12/2025	18:08	LB134704
	Copper	0.86	<0.86	U	0.86	P	02/12/2025	18:08	LB134704
	Iron	4.27	<4.27	U	4.27	P	02/12/2025	18:08	LB134704
	Lead	0.51	<0.51	U	0.51	P	02/12/2025	18:08	LB134704
	Magnesium	85.5	<85.5	U	85.5	P	02/12/2025	18:08	LB134704
	Manganese	0.86	<0.86	U	0.86	P	02/12/2025	18:08	LB134704
	Nickel	1.71	<1.71	U	1.71	P	02/12/2025	18:08	LB134704
	Potassium	85.5	<85.5	U	85.5	P	02/12/2025	18:08	LB134704
	Selenium	0.86	<0.86	U	0.86	P	02/12/2025	18:08	LB134704
	Silver	0.43	<0.43	U	0.43	P	02/12/2025	18:08	LB134704
	Sodium	85.5	<85.5	U	85.5	P	02/12/2025	18:08	LB134704
	Thallium	1.71	<1.71	U	1.71	P	02/12/2025	18:08	LB134704
	Vanadium	1.71	<1.71	U	1.71	P	02/12/2025	18:08	LB134704
	Zinc	1.71	<1.71	U	1.71	P	02/12/2025	18:08	LB134704

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Metals
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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	243000	255000	95	216000	294000	02/10/2025	14:35	LB134659
	Antimony	0.93			-50	50	02/10/2025	14:35	LB134659
	Arsenic	1.27			-20	20	02/10/2025	14:35	LB134659
	Barium	1.84	6.0	31	-94	106	02/10/2025	14:35	LB134659
	Beryllium	1.94			-6	6	02/10/2025	14:35	LB134659
	Cadmium	3.51	1.0	351	-5	7	02/10/2025	14:35	LB134659
	Calcium	226000	245000	92	208000	282000	02/10/2025	14:35	LB134659
	Chromium	56.7	52.0	109	42	62	02/10/2025	14:35	LB134659
	Cobalt	2.30			-30	30	02/10/2025	14:35	LB134659
	Copper	6.48	2.0	324	-18	22	02/10/2025	14:35	LB134659
	Iron	96500	101000	96	85600	116500	02/10/2025	14:35	LB134659
	Lead	8.37			-12	12	02/10/2025	14:35	LB134659
	Magnesium	244000	255000	96	216000	294000	02/10/2025	14:35	LB134659
	Manganese	4.94	7.0	71	-13	27	02/10/2025	14:35	LB134659
	Nickel	3.88	2.0	194	-38	42	02/10/2025	14:35	LB134659
	Potassium	-134			0	0	02/10/2025	14:35	LB134659
	Selenium	-6.12			-20	20	02/10/2025	14:35	LB134659
	Silver	2.79			-10	10	02/10/2025	14:35	LB134659
	Sodium	-468			0	0	02/10/2025	14:35	LB134659
	Thallium	5.79			-40	40	02/10/2025	14:35	LB134659
	Vanadium	3.73			-40	40	02/10/2025	14:35	LB134659
	Zinc	6.15			-40	40	02/10/2025	14:35	LB134659
ICSAB01	Aluminum	245000	247000	99	209000	285000	02/10/2025	14:41	LB134659
	Antimony	632	618	102	525	711	02/10/2025	14:41	LB134659
	Arsenic	106	104	102	88.4	120	02/10/2025	14:41	LB134659
	Barium	442	537	82	437	637	02/10/2025	14:41	LB134659
	Beryllium	473	495	96	420	570	02/10/2025	14:41	LB134659
	Cadmium	963	972	99	826	1120	02/10/2025	14:41	LB134659
	Calcium	225000	235000	96	199000	271000	02/10/2025	14:41	LB134659
	Chromium	556	542	103	460	624	02/10/2025	14:41	LB134659
	Cobalt	492	476	103	404	548	02/10/2025	14:41	LB134659
	Copper	494	511	97	434	588	02/10/2025	14:41	LB134659
	Iron	95800	99300	96	84400	114500	02/10/2025	14:41	LB134659
	Lead	55.7	49.0	114	37	61	02/10/2025	14:41	LB134659
	Magnesium	243000	248000	98	210000	286000	02/10/2025	14:41	LB134659
	Manganese	439	507	87	430	584	02/10/2025	14:41	LB134659
	Nickel	971	954	102	810	1100	02/10/2025	14:41	LB134659
	Potassium	-143			0	0	02/10/2025	14:41	LB134659
	Selenium	44.9	46.0	98	26	66	02/10/2025	14:41	LB134659
	Silver	216	201	108	170	232	02/10/2025	14:41	LB134659
	Sodium	-483			0	0	02/10/2025	14:41	LB134659
	Thallium	88.3	108	82	68	148	02/10/2025	14:41	LB134659

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Metals
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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Vanadium	450	491	92	417	565	02/10/2025	14:41	LB134659
	Zinc	1040	952	109	809	1095	02/10/2025	14:41	LB134659
ICSA01	Aluminum	245000	255000	96	216000	294000	02/12/2025	13:21	LB134704
	Antimony	0.84			-50	50	02/12/2025	13:21	LB134704
	Arsenic	-4.34			-20	20	02/12/2025	13:21	LB134704
	Barium	6.69	6.0	112	-94	106	02/12/2025	13:21	LB134704
	Beryllium	2.82			-6	6	02/12/2025	13:21	LB134704
	Cadmium	-3.20	1.0	320	-5	7	02/12/2025	13:21	LB134704
	Calcium	234000	245000	96	208000	282000	02/12/2025	13:21	LB134704
	Chromium	59.1	52.0	114	42	62	02/12/2025	13:21	LB134704
	Cobalt	2.15			-30	30	02/12/2025	13:21	LB134704
	Copper	7.73	2.0	386	-18	22	02/12/2025	13:21	LB134704
	Iron	106000	101000	105	85600	116500	02/12/2025	13:21	LB134704
	Lead	7.88			-12	12	02/12/2025	13:21	LB134704
	Magnesium	252000	255000	99	216000	294000	02/12/2025	13:21	LB134704
	Manganese	-0.86	7.0	12	-13	27	02/12/2025	13:21	LB134704
	Nickel	4.04	2.0	202	-38	42	02/12/2025	13:21	LB134704
	Potassium	10.9			0	0	02/12/2025	13:21	LB134704
	Selenium	-16.2			-20	20	02/12/2025	13:21	LB134704
	Silver	-5.31			-10	10	02/12/2025	13:21	LB134704
	Sodium	50.4			0	0	02/12/2025	13:21	LB134704
	Thallium	-0.098			-40	40	02/12/2025	13:21	LB134704
	Vanadium	7.52			-40	40	02/12/2025	13:21	LB134704
	Zinc	4.54			-40	40	02/12/2025	13:21	LB134704
ICSAB01	Aluminum	241000	247000	98	209000	285000	02/12/2025	13:25	LB134704
	Antimony	608	618	98	525	711	02/12/2025	13:25	LB134704
	Arsenic	106	104	102	88.4	120	02/12/2025	13:25	LB134704
	Barium	482	537	90	437	637	02/12/2025	13:25	LB134704
	Beryllium	468	495	94	420	570	02/12/2025	13:25	LB134704
	Cadmium	1000	972	103	826	1120	02/12/2025	13:25	LB134704
	Calcium	231000	235000	98	199000	271000	02/12/2025	13:25	LB134704
	Chromium	571	542	105	460	624	02/12/2025	13:25	LB134704
	Cobalt	509	476	107	404	548	02/12/2025	13:25	LB134704
	Copper	498	511	98	434	588	02/12/2025	13:25	LB134704
	Iron	105000	99300	106	84400	114500	02/12/2025	13:25	LB134704
	Lead	56.5	49.0	115	37	61	02/12/2025	13:25	LB134704
	Magnesium	248000	248000	100	210000	286000	02/12/2025	13:25	LB134704
	Manganese	468	507	92	430	584	02/12/2025	13:25	LB134704
	Nickel	1010	954	106	810	1100	02/12/2025	13:25	LB134704
	Potassium	-9.51			0	0	02/12/2025	13:25	LB134704
	Selenium	33.8	46.0	74	26	66	02/12/2025	13:25	LB134704
	Silver	213	201	106	170	232	02/12/2025	13:25	LB134704

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Metals
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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Sodium	50.1			0	0	02/12/2025	13:25	LB134704
	Thallium	89.5	108	83	68	148	02/12/2025	13:25	LB134704
	Vanadium	468	491	95	417	565	02/12/2025	13:25	LB134704
	Zinc	1050	952	110	809	1095	02/12/2025	13:25	LB134704

METAL QC DATA

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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1242

contract: RUTW01 **lab code:** CHEM **case no.:** Q1242 **sas no.:** Q1242

matrix: Solid **sample id:** Q1241-19 **client id:** JPP-51.4-013025MS

Percent Solids for Sample: 93.2 **Spiked ID:** Q1241-19MS **Percent Solids for Spike Sample:** 93.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	6020		5920		93.3	109		P
Antimony	mg/Kg	75 - 125	12.7		0.66	J	37.3	32	N	P
Arsenic	mg/Kg	75 - 125	39.8		7.33		37.3	87		P
Barium	mg/Kg	75 - 125	119		118		9.3	12		P
Beryllium	mg/Kg	75 - 125	7.59		0.44		9.3	77		P
Cadmium	mg/Kg	75 - 125	9.27		1.02		9.3	89		P
Calcium	mg/Kg	75 - 125	23300		23200		46.7	132		P
Chromium	mg/Kg	75 - 125	29.3		15.0		18.7	76		P
Cobalt	mg/Kg	75 - 125	15.6		7.16		9.3	91		P
Copper	mg/Kg	75 - 125	84.1		83.1		14.0	7		P
Iron	mg/Kg	75 - 125	18400		15800		140	1832		P
Lead	mg/Kg	75 - 125	285		286		46.7	-1		P
Magnesium	mg/Kg	75 - 125	4330		3980		93.3	378		P
Manganese	mg/Kg	75 - 125	202		221		9.3	-206		P
Nickel	mg/Kg	75 - 125	41.0		19.5		23.3	92		P
Potassium	mg/Kg	75 - 125	1680		1160		470	110		P
Selenium	mg/Kg	75 - 125	77.7		0.93	U	93.3	83		P
Silver	mg/Kg	75 - 125	3.93		0.79		3.5	90		P
Sodium	mg/Kg	75 - 125	2340		2280		140	40		P
Thallium	mg/Kg	75 - 125	75.9		1.85	U	93.3	81		P
Vanadium	mg/Kg	75 - 125	32.1		22.4		14.0	69	N	P
Zinc	mg/Kg	75 - 125	175		185		9.3	-110		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1242

contract: RUTW01 **lab code:** CHEM **case no.:** Q1242 **sas no.:** Q1242

matrix: Solid **sample id:** Q1241-19 **client id:** JPP-51.4-013025MSD

Percent Solids for Sample: 93.2 **Spiked ID:** Q1241-19MSD **Percent Solids for Spike Sample:** 93.2

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	5960		5920		94.1	48		P
Antimony	mg/Kg	75 - 125	12.7		0.66	J	37.6	32	N	P
Arsenic	mg/Kg	75 - 125	40.1		7.33		37.6	87		P
Barium	mg/Kg	75 - 125	115		118		9.4	-33		P
Beryllium	mg/Kg	75 - 125	7.60		0.44		9.4	76		P
Cadmium	mg/Kg	75 - 125	9.35		1.02		9.4	89		P
Calcium	mg/Kg	75 - 125	22800		23200		47.1	-985		P
Chromium	mg/Kg	75 - 125	29.5		15.0		18.8	77		P
Cobalt	mg/Kg	75 - 125	15.7		7.16		9.4	91		P
Copper	mg/Kg	75 - 125	84.8		83.1		14.1	12		P
Iron	mg/Kg	75 - 125	18200		15800		140	1673		P
Lead	mg/Kg	75 - 125	286		286		47.1	1		P
Magnesium	mg/Kg	75 - 125	4250		3980		94.1	289		P
Manganese	mg/Kg	75 - 125	196		221		9.4	-265		P
Nickel	mg/Kg	75 - 125	41.2		19.5		23.5	92		P
Potassium	mg/Kg	75 - 125	1630		1160		470	99		P
Selenium	mg/Kg	75 - 125	78.5		0.93	U	94.1	83		P
Silver	mg/Kg	75 - 125	3.91		0.79		3.5	89		P
Sodium	mg/Kg	75 - 125	2300		2280		140	13		P
Thallium	mg/Kg	75 - 125	76.9		1.85	U	94.1	82		P
Vanadium	mg/Kg	75 - 125	31.4		22.4		14.1	64	N	P
Zinc	mg/Kg	75 - 125	176		185		9.4	-90		P

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metals
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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1242

contract: RUTW01 **lab code:** CHEM **case no.:** Q1242 **sas no.:** Q1242

matrix: Solid **sample id:** Q1269-01 **client id:** VNJ-231MS

Percent Solids for Sample: 88.9 **Spiked ID:** Q1269-01MS **Percent Solids for Spike Sample:** 88.9

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.31		0.019		0.3	97		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1242

contract: RUTW01 **lab code:** CHEM **case no.:** Q1242 **sas no.:** Q1242

matrix: Solid **sample id:** Q1269-01 **client id:** VNJ-231MSD

Percent Solids for Sample: 88.9 **Spiked ID:** Q1269-01MSD **Percent Solids for Spike Sample:** 88.9

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.25		0.019		0.27	84		CV

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Metals
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POST DIGEST SPIKE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Matrix: Solid **Level:** LOW **Client ID:** JPP-51.4-013025A

Sample ID: Q1241-19 **Spiked ID:** Q1241-19A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	12.8		0.66	J	37.0	33		P
Vanadium	mg/Kg	75 - 125	31.5		22.4		13.9	66		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Matrix: Solid **Sample ID:** Q1241-19 **Client ID:** JPP-51.4-013025DUP

Percent Solids for Sample: 93.2 **Duplicate ID** Q1241-19DUP **Percent Solids for Spike Sample:** 93.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	5920		5910		0		P
Antimony	mg/Kg	20	0.66	J	0.70	J	6		P
Arsenic	mg/Kg	20	7.33		7.22		2		P
Barium	mg/Kg	20	118		115		3		P
Beryllium	mg/Kg	20	0.44		0.47		7		P
Cadmium	mg/Kg	20	1.02		1.15		12		P
Calcium	mg/Kg	20	23200		23500		1		P
Chromium	mg/Kg	20	15.0		15.5		3		P
Cobalt	mg/Kg	20	7.16		7.36		3		P
Copper	mg/Kg	20	83.1		85.1		2		P
Iron	mg/Kg	20	15800		15300		3		P
Lead	mg/Kg	20	286		292		2		P
Magnesium	mg/Kg	20	3980		3980		0		P
Manganese	mg/Kg	20	221		220		0		P
Nickel	mg/Kg	20	19.5		20.0		3		P
Potassium	mg/Kg	20	1160		1090		6		P
Selenium	mg/Kg	20	0.93	U	0.95	U			P
Silver	mg/Kg	20	0.79		0.63		22	*	P
Sodium	mg/Kg	20	2280		2160		5		P
Thallium	mg/Kg	20	1.85	U	1.91	U			P
Vanadium	mg/Kg	20	22.4		22.3		0		P
Zinc	mg/Kg	20	185		191		3		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Matrix: Solid **Sample ID:** Q1241-19MS **Client ID:** JPP-51.4-013025MSD

Percent Solids for Sample: 93.2 **Duplicate ID** Q1241-19MSD **Percent Solids for Spike Sample:** 93.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6020		5960		1		P
Antimony	mg/Kg	20	12.7		12.7		0		P
Arsenic	mg/Kg	20	39.8		40.1		1		P
Barium	mg/Kg	20	119		115		3		P
Beryllium	mg/Kg	20	7.59		7.60		0		P
Cadmium	mg/Kg	20	9.27		9.35		1		P
Calcium	mg/Kg	20	23300		22800		2		P
Chromium	mg/Kg	20	29.3		29.5		1		P
Cobalt	mg/Kg	20	15.6		15.7		1		P
Copper	mg/Kg	20	84.1		84.8		1		P
Iron	mg/Kg	20	18400		18200		1		P
Lead	mg/Kg	20	285		286		0		P
Magnesium	mg/Kg	20	4330		4250		2		P
Manganese	mg/Kg	20	202		196		3		P
Nickel	mg/Kg	20	41.0		41.2		0		P
Potassium	mg/Kg	20	1680		1630		3		P
Selenium	mg/Kg	20	77.7		78.5		1		P
Silver	mg/Kg	20	3.93		3.91		1		P
Sodium	mg/Kg	20	2340		2300		2		P
Thallium	mg/Kg	20	75.9		76.9		1		P
Vanadium	mg/Kg	20	32.1		31.4		2		P
Zinc	mg/Kg	20	175		176		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Matrix: Solid **Sample ID:** Q1269-01 **Client ID:** VNJ-231DUP

Percent Solids for Sample: 88.9 **Duplicate ID** Q1269-01DUP **Percent Solids for Spike Sample:** 88.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.019		0.023		19		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Matrix: Solid **Sample ID:** Q1269-01MS **Client ID:** VNJ-231MSD

Percent Solids for Sample: 88.9 **Duplicate ID** Q1269-01MSD **Percent Solids for Spike Sample:** 88.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.31		0.25		23	*	CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166414BS							
Aluminum	mg/Kg	85.5	80.4		94	80 - 120	P
Antimony	mg/Kg	34.2	33.0		96	80 - 120	P
Arsenic	mg/Kg	34.2	32.8		96	80 - 120	P
Barium	mg/Kg	8.5	8.26		97	80 - 120	P
Beryllium	mg/Kg	8.5	8.20		96	80 - 120	P
Cadmium	mg/Kg	8.5	8.31		98	80 - 120	P
Calcium	mg/Kg	42.7	43.1	J	101	80 - 120	P
Chromium	mg/Kg	17.1	17.4		102	80 - 120	P
Cobalt	mg/Kg	8.5	8.37		98	80 - 120	P
Copper	mg/Kg	12.8	13.1		102	80 - 120	P
Iron	mg/Kg	130	132		102	80 - 120	P
Lead	mg/Kg	42.7	40.9		96	80 - 120	P
Magnesium	mg/Kg	85.5	83.0	J	97	80 - 120	P
Manganese	mg/Kg	8.5	8.40		99	80 - 120	P
Nickel	mg/Kg	21.4	21.2		99	80 - 120	P
Potassium	mg/Kg	430	422		98	80 - 120	P
Selenium	mg/Kg	85.5	82.1		96	80 - 120	P
Silver	mg/Kg	3.2	3.22		101	80 - 120	P
Sodium	mg/Kg	130	138		106	80 - 120	P
Thallium	mg/Kg	85.5	80.6		94	80 - 120	P
Vanadium	mg/Kg	12.8	12.3		96	80 - 120	P
Zinc	mg/Kg	8.5	8.63		102	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166520BS							
Mercury	mg/Kg	0.24	0.20		83	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

JPP-51.4-013025L

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134659 **Lab Sample ID :** Q1241-19L **SDG No.:** Q1242

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	5920		6380		8		P
Antimony	0.66	J	11.6	U	100.0		P
Arsenic	7.33		7.41		1		P
Barium	118		122		3		P
Beryllium	0.44		0.54	J	24		P
Cadmium	1.02		0.60	J	41		P
Calcium	23200		26500		14		P
Chromium	15.0		17.3		15		P
Cobalt	7.16		7.27		2		P
Copper	83.1		99.5		20		P
Iron	15800		16700		5		P
Lead	286		303		6		P
Magnesium	3980		4500		13		P
Manganese	221		253		15		P
Nickel	19.5		20.1		3		P
Potassium	1160		1050		9		P
Selenium	0.93	U	4.62	U			P
Silver	0.79		0.72	J	8		P
Sodium	2280		2010		12		P
Thallium	1.85	U	9.25	U			P
Vanadium	22.4		24.9		11		P
Zinc	185		210		13		P

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ICP SERIAL DILUTIONS

SAMPLE NO.

VNJ-231L

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134542 **Lab Sample ID :** Q1269-01L **SDG No.:** Q1242

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.019		0.068	U	100.0		CV

METAL PREPARATION & INSTRUMENT DATA

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1242 **SAS No.:** Q1242

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166414**						
PB166414BL	PB166414BL	MB	SOLID	01/31/2025	2.34	100.0	100.00
PB166414BS	PB166414BS	LCS	SOLID	01/31/2025	2.34	100.0	100.00
Q1241-19DUP	JPP-51.4-013025DUP	DUP	SOLID	01/31/2025	2.25	100.0	93.20
Q1241-19MS	JPP-51.4-013025MS	MS	SOLID	01/31/2025	2.30	100.0	93.20
Q1241-19MSD	JPP-51.4-013025MSD	MSD	SOLID	01/31/2025	2.28	100.0	93.20
Q1242-03	JPP-6.2-013025	SAM	SOLID	01/31/2025	2.35	100.0	81.20

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1242 **SAS No.:** Q1242

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166520**						
PB166520BL	PB166520BL	MB	SOLID	02/03/2025	0.54	35.0	100.00
PB166520BS	PB166520BS	LCS	SOLID	02/03/2025	0.59	35.0	100.00
Q1242-03	JPP-6.2-013025	SAM	SOLID	02/03/2025	0.59	35.0	81.20
Q1269-01DUP	VNJ-231DUP	DUP	SOLID	02/03/2025	0.55	35.0	88.90
Q1269-01MS	VNJ-231MS	MS	SOLID	02/03/2025	0.53	35.0	88.90
Q1269-01MSD	VNJ-231MSD	MSD	SOLID	02/03/2025	0.59	35.0	88.90

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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1242 **Sas no.:** Q1242 **Sdg no.:** Q1242

Instrument id number: **Method:** **Run number:** LB134542

Start date: 02/03/2025 **End date:** 02/03/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1745	HG
S0.2	S0.2	1	1747	HG
S2.5	S2.5	1	1749	HG
S5	S5	1	1752	HG
S7.5	S7.5	1	1754	HG
S10	S10	1	1756	HG
ICV82	ICV82	1	1802	HG
ICB82	ICB82	1	1804	HG
CCV14	CCV14	1	1807	HG
CCB14	CCB14	1	1809	HG
CRA	CRA	1	1811	HG
PB166520BL	PB166520BL	1	1818	HG
PB166520BS	PB166520BS	1	1820	HG
CCV15	CCV15	1	1835	HG
CCB15	CCB15	1	1837	HG
Q1242-03	JPP-6.2-013025	1	1844	HG
CCV16	CCV16	1	1902	HG
CCB16	CCB16	1	1904	HG
Q1269-01DUP	VNJ-231DUP	1	1907	HG
Q1269-01MS	VNJ-231MS	1	1909	HG
Q1269-01MSD	VNJ-231MSD	1	1911	HG
Q1269-01L	VNJ-231L	5	1918	HG
CCV17	CCV17	1	1927	HG
CCB17	CCB17	1	1929	HG

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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1242 **Sas no.:** Q1242 **Sdg no.:** Q1242

Instrument id number: **Method:** **Run number:** LB134659

Start date: 02/10/2025 **End date:** 02/10/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1328	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1332	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1336	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1340	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1344	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1349	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1406	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1420	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1426	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1431	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1435	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1441	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1459	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1503	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1605	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1608	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1657	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1706	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1753	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1800	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1848	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1852	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1940	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1945	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1241-19DUP	JPP-51.4-013025DUP	1	1958	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1241-19L	JPP-51.4-013025L	5	2002	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1241-19MS	JPP-51.4-013025MS	1	2006	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1241-19MSD	JPP-51.4-013025MSD	1	2011	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1241-19A	JPP-51.4-013025A	1	2015	Sb,V
Q1242-03	JPP-6.2-013025	1	2019	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	2036	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	2041	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV08	CCV08	1	2102	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB08	CCB08	1	2106	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1242 **Sas no.:** Q1242 **Sdg no.:** Q1242

Instrument id number: **Method:** **Run number:** LB134704

Start date: 02/12/2025 **End date:** 02/12/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1147	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1152	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1156	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1200	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1204	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1209	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1259	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1308	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1312	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1317	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1321	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1325	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1339	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1343	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1429	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1433	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1520	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1524	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1613	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1617	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1704	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1708	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1755	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1759	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB166414BL	PB166414BL	1	1808	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB166414BS	PB166414BS	1	1812	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	1834	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	1838	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-03	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			Mercury	7471B		02/03/25	02/03/25	
			Metals ICP-TAL	6010D		01/31/25	02/10/25	
Q1242-04	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP ICP Metals	6010D		02/03/25	02/07/25	
			TCLP Mercury	7470A		02/03/25	02/04/25	

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Hit Summary Sheet
SW-846

SDG No.:	Q1242	**Order ID:**	Q1242
Client:	RU2 Engineering, LLC	**Project ID:**	NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-6.2-013025								
Q1242-04	JPP-6.2-013025	TCLP	Barium	360	J	62.8	500	ug/L
Q1242-04	JPP-6.2-013025	TCLP	Chromium	29.8	J	6.60	50.0	ug/L

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	02/03/25 12:05	02/07/25 14:11	SW6010	SW3050
7440-39-3	Barium	360	J	1	62.8	500	ug/L	02/03/25 12:05	02/07/25 14:11	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	02/03/25 12:05	02/07/25 14:11	SW6010	SW3050
7440-47-3	Chromium	29.8	J	1	6.60	50.0	ug/L	02/03/25 12:05	02/07/25 14:11	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	02/03/25 12:05	02/07/25 14:11	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	02/03/25 15:10	02/04/25 12:18	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	02/03/25 12:05	02/07/25 14:11	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	02/03/25 12:05	02/07/25 14:11	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV83	Mercury	3.97	4.0	99	90 - 110	CV	02/04/2025	11:29	LB134551

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV18	Mercury	4.90	5.0	98	90 - 110	CV	02/04/2025	11:34	LB134551
CCV19	Mercury	4.75	5.0	95	90 - 110	CV	02/04/2025	12:05	LB134551
CCV20	Mercury	4.69	5.0	94	90 - 110	CV	02/04/2025	12:30	LB134551
CCV21	Mercury	5.21	5.0	104	90 - 110	CV	02/04/2025	12:41	LB134551

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	983	1000	98	90 - 110	P	02/06/2025	12:59	Lb134604
	Barium	477	520	92	90 - 110	P	02/06/2025	12:59	Lb134604
	Cadmium	498	510	98	90 - 110	P	02/06/2025	12:59	Lb134604
	Chromium	532	520	102	90 - 110	P	02/06/2025	12:59	Lb134604
	Lead	981	1000	98	90 - 110	P	02/06/2025	12:59	Lb134604
	Selenium	1020	1000	102	90 - 110	P	02/06/2025	12:59	Lb134604
	Silver	252	250	101	90 - 110	P	02/06/2025	12:59	Lb134604

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Arsenic	18.4	20.0	92	80 - 120	P	02/06/2025	13:03	Lb134604
	Barium	92.2	100	92	80 - 120	P	02/06/2025	13:03	Lb134604
	Cadmium	5.94	6.0	99	80 - 120	P	02/06/2025	13:03	Lb134604
	Chromium	9.88	10.0	99	80 - 120	P	02/06/2025	13:03	Lb134604
	Lead	11.1	12.0	92	80 - 120	P	02/06/2025	13:03	Lb134604
	Selenium	20.5	20.0	103	80 - 120	P	02/06/2025	13:03	Lb134604
	Silver	10.9	10.0	109	80 - 120	P	02/06/2025	13:03	Lb134604

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	4910	5000	98	90 - 110	P	02/06/2025	13:25	Lb134604
	Barium	9480	10000	95	90 - 110	P	02/06/2025	13:25	Lb134604
	Cadmium	2440	2500	98	90 - 110	P	02/06/2025	13:25	Lb134604
	Chromium	996	1000	100	90 - 110	P	02/06/2025	13:25	Lb134604
	Lead	4870	5000	98	90 - 110	P	02/06/2025	13:25	Lb134604
	Selenium	4930	5000	99	90 - 110	P	02/06/2025	13:25	Lb134604
	Silver	1240	1250	99	90 - 110	P	02/06/2025	13:25	Lb134604
CCV02	Arsenic	4820	5000	96	90 - 110	P	02/06/2025	13:59	Lb134604
	Barium	9530	10000	95	90 - 110	P	02/06/2025	13:59	Lb134604
	Cadmium	2440	2500	98	90 - 110	P	02/06/2025	13:59	Lb134604
	Chromium	988	1000	99	90 - 110	P	02/06/2025	13:59	Lb134604
	Lead	4850	5000	97	90 - 110	P	02/06/2025	13:59	Lb134604
	Selenium	4820	5000	96	90 - 110	P	02/06/2025	13:59	Lb134604
	Silver	1230	1250	98	90 - 110	P	02/06/2025	13:59	Lb134604
CCV03	Arsenic	4810	5000	96	90 - 110	P	02/06/2025	14:51	Lb134604
	Barium	9390	10000	94	90 - 110	P	02/06/2025	14:51	Lb134604
	Cadmium	2380	2500	95	90 - 110	P	02/06/2025	14:51	Lb134604
	Chromium	971	1000	97	90 - 110	P	02/06/2025	14:51	Lb134604
	Lead	4740	5000	95	90 - 110	P	02/06/2025	14:51	Lb134604
	Selenium	4840	5000	97	90 - 110	P	02/06/2025	14:51	Lb134604
	Silver	1200	1250	96	90 - 110	P	02/06/2025	14:51	Lb134604
CCV04	Arsenic	4970	5000	99	90 - 110	P	02/06/2025	15:09	Lb134604
	Barium	9780	10000	98	90 - 110	P	02/06/2025	15:09	Lb134604
	Cadmium	2460	2500	98	90 - 110	P	02/06/2025	15:09	Lb134604
	Chromium	999	1000	100	90 - 110	P	02/06/2025	15:09	Lb134604
	Lead	4920	5000	98	90 - 110	P	02/06/2025	15:09	Lb134604
	Selenium	5000	5000	100	90 - 110	P	02/06/2025	15:09	Lb134604
	Silver	1240	1250	99	90 - 110	P	02/06/2025	15:09	Lb134604

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	1000	1000	100	95 - 105	P	02/07/2025	12:11	LB134636
	Barium	502	520	97	95 - 105	P	02/07/2025	12:11	LB134636
	Cadmium	510	510	100	95 - 105	P	02/07/2025	12:11	LB134636
	Chromium	532	520	102	95 - 105	P	02/07/2025	12:11	LB134636
	Lead	999	1000	100	95 - 105	P	02/07/2025	12:11	LB134636
	Selenium	1040	1000	104	95 - 105	P	02/07/2025	12:11	LB134636
	Silver	251	250	101	95 - 105	P	02/07/2025	12:11	LB134636

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Arsenic	21.8	20.0	109	80 - 120	P	02/07/2025	12:27	LB134636
	Barium	91.5	100	92	80 - 120	P	02/07/2025	12:27	LB134636
	Cadmium	6.03	6.0	100	80 - 120	P	02/07/2025	12:27	LB134636
	Chromium	9.90	10.0	99	80 - 120	P	02/07/2025	12:27	LB134636
	Lead	11.2	12.0	94	80 - 120	P	02/07/2025	12:27	LB134636
	Selenium	22.0	20.0	110	80 - 120	P	02/07/2025	12:27	LB134636
	Silver	10.1	10.0	101	80 - 120	P	02/07/2025	12:27	LB134636

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	5070	5000	101	90 - 110	P	02/07/2025	12:57	LB134636
	Barium	9860	10000	99	90 - 110	P	02/07/2025	12:57	LB134636
	Cadmium	2490	2500	100	90 - 110	P	02/07/2025	12:57	LB134636
	Chromium	1010	1000	101	90 - 110	P	02/07/2025	12:57	LB134636
	Lead	4990	5000	100	90 - 110	P	02/07/2025	12:57	LB134636
	Selenium	5110	5000	102	90 - 110	P	02/07/2025	12:57	LB134636
	Silver	1250	1250	100	90 - 110	P	02/07/2025	12:57	LB134636
CCV02	Arsenic	5060	5000	101	90 - 110	P	02/07/2025	13:49	LB134636
	Barium	9830	10000	98	90 - 110	P	02/07/2025	13:49	LB134636
	Cadmium	2470	2500	99	90 - 110	P	02/07/2025	13:49	LB134636
	Chromium	1010	1000	100	90 - 110	P	02/07/2025	13:49	LB134636
	Lead	4970	5000	99	90 - 110	P	02/07/2025	13:49	LB134636
	Selenium	5110	5000	102	90 - 110	P	02/07/2025	13:49	LB134636
	Silver	1250	1250	100	90 - 110	P	02/07/2025	13:49	LB134636
CCV03	Arsenic	5200	5000	104	90 - 110	P	02/07/2025	14:41	LB134636
	Barium	9760	10000	98	90 - 110	P	02/07/2025	14:41	LB134636
	Cadmium	2440	2500	98	90 - 110	P	02/07/2025	14:41	LB134636
	Chromium	986	1000	99	90 - 110	P	02/07/2025	14:41	LB134636
	Lead	4920	5000	98	90 - 110	P	02/07/2025	14:41	LB134636
	Selenium	5300	5000	106	90 - 110	P	02/07/2025	14:41	LB134636
	Silver	1240	1250	99	90 - 110	P	02/07/2025	14:41	LB134636
CCV04	Arsenic	4960	5000	99	90 - 110	P	02/07/2025	15:32	LB134636
	Barium	9610	10000	96	90 - 110	P	02/07/2025	15:32	LB134636
	Cadmium	2430	2500	97	90 - 110	P	02/07/2025	15:32	LB134636
	Chromium	990	1000	99	90 - 110	P	02/07/2025	15:32	LB134636
	Lead	4890	5000	98	90 - 110	P	02/07/2025	15:32	LB134636
	Selenium	4980	5000	100	90 - 110	P	02/07/2025	15:32	LB134636
	Silver	1220	1250	98	90 - 110	P	02/07/2025	15:32	LB134636
CCV05	Arsenic	5090	5000	102	90 - 110	P	02/07/2025	16:24	LB134636
	Barium	9800	10000	98	90 - 110	P	02/07/2025	16:24	LB134636
	Cadmium	2480	2500	99	90 - 110	P	02/07/2025	16:24	LB134636
	Chromium	1020	1000	102	90 - 110	P	02/07/2025	16:24	LB134636
	Lead	4990	5000	100	90 - 110	P	02/07/2025	16:24	LB134636
	Selenium	5130	5000	102	90 - 110	P	02/07/2025	16:24	LB134636

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Silver	1260	1250	100	90 - 110	P	02/07/2025	16:24	LB134636
CCV06	Arsenic	5040	5000	101	90 - 110	P	02/07/2025	17:16	LB134636
	Barium	9530	10000	95	90 - 110	P	02/07/2025	17:16	LB134636
	Cadmium	2440	2500	97	90 - 110	P	02/07/2025	17:16	LB134636
	Chromium	1010	1000	101	90 - 110	P	02/07/2025	17:16	LB134636
	Lead	4910	5000	98	90 - 110	P	02/07/2025	17:16	LB134636
	Selenium	5080	5000	102	90 - 110	P	02/07/2025	17:16	LB134636
	Silver	1250	1250	100	90 - 110	P	02/07/2025	17:16	LB134636
CCV07	Arsenic	5210	5000	104	90 - 110	P	02/07/2025	18:00	LB134636
	Barium	9530	10000	95	90 - 110	P	02/07/2025	18:00	LB134636
	Cadmium	2450	2500	98	90 - 110	P	02/07/2025	18:00	LB134636
	Chromium	1010	1000	101	90 - 110	P	02/07/2025	18:00	LB134636
	Lead	4980	5000	100	90 - 110	P	02/07/2025	18:00	LB134636
	Selenium	5300	5000	106	90 - 110	P	02/07/2025	18:00	LB134636
	Silver	1240	1250	99	90 - 110	P	02/07/2025	18:00	LB134636
CCV08	Arsenic	5260	5000	105	90 - 110	P	02/07/2025	18:23	LB134636
	Barium	9470	10000	95	90 - 110	P	02/07/2025	18:23	LB134636
	Cadmium	2480	2500	99	90 - 110	P	02/07/2025	18:23	LB134636
	Chromium	1020	1000	102	90 - 110	P	02/07/2025	18:23	LB134636
	Lead	5020	5000	100	90 - 110	P	02/07/2025	18:23	LB134636
	Selenium	5330	5000	107	90 - 110	P	02/07/2025	18:23	LB134636
	Silver	1250	1250	100	90 - 110	P	02/07/2025	18:23	LB134636

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Metals

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CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.22	0.2	111	40 - 160	CV	02/04/2025	11:38	LB134551
CRI01	Arsenic	20.6	20.0	103	40 - 160	P	02/06/2025	13:12	Lb134604
	Barium	89.7	100	90	40 - 160	P	02/06/2025	13:12	Lb134604
	Cadmium	5.91	6.0	98	40 - 160	P	02/06/2025	13:12	Lb134604
	Chromium	9.92	10.0	99	40 - 160	P	02/06/2025	13:12	Lb134604
	Lead	11.4	12.0	95	40 - 160	P	02/06/2025	13:12	Lb134604
	Selenium	19.9	20.0	100	40 - 160	P	02/06/2025	13:12	Lb134604
	Silver	10.7	10.0	107	40 - 160	P	02/06/2025	13:12	Lb134604
CRI01	Arsenic	20.3	20.0	102	40 - 160	P	02/07/2025	12:35	LB134636
	Barium	92.8	100	93	40 - 160	P	02/07/2025	12:35	LB134636
	Cadmium	5.87	6.0	98	40 - 160	P	02/07/2025	12:35	LB134636
	Chromium	9.48	10.0	95	40 - 160	P	02/07/2025	12:35	LB134636
	Lead	10.9	12.0	91	40 - 160	P	02/07/2025	12:35	LB134636
	Selenium	19.8	20.0	99	40 - 160	P	02/07/2025	12:35	LB134636
	Silver	10.1	10.0	101	40 - 160	P	02/07/2025	12:35	LB134636

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB83	Mercury	0.20	+/-0.20	U	0.20	CV	02/04/2025	11:32	LB134551

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB18	Mercury	0.20	+/-0.20	U	0.20	CV	02/04/2025	11:36	LB134551
CCB19	Mercury	0.20	+/-0.20	U	0.20	CV	02/04/2025	12:07	LB134551
CCB20	Mercury	0.20	+/-0.20	U	0.20	CV	02/04/2025	12:32	LB134551
CCB21	Mercury	0.20	+/-0.20	U	0.20	CV	02/04/2025	12:43	LB134551

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	02/06/2025	13:08	Lb134604
	Barium	100	+/-100	U	100	P	02/06/2025	13:08	Lb134604
	Cadmium	6.00	+/-6.00	U	6.00	P	02/06/2025	13:08	Lb134604
	Chromium	10.0	+/-10.0	U	10.0	P	02/06/2025	13:08	Lb134604
	Lead	12.0	+/-12.0	U	12.0	P	02/06/2025	13:08	Lb134604
	Selenium	20.0	+/-20.0	U	20.0	P	02/06/2025	13:08	Lb134604
	Silver	10.0	+/-10.0	U	10.0	P	02/06/2025	13:08	Lb134604

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	02/06/2025	13:29	Lb134604
	Barium	100	+/-100	U	100	P	02/06/2025	13:29	Lb134604
	Cadmium	6.00	+/-6.00	U	6.00	P	02/06/2025	13:29	Lb134604
	Chromium	10.0	+/-10.0	U	10.0	P	02/06/2025	13:29	Lb134604
	Lead	12.0	+/-12.0	U	12.0	P	02/06/2025	13:29	Lb134604
	Selenium	20.0	+/-20.0	U	20.0	P	02/06/2025	13:29	Lb134604
	Silver	10.0	+/-10.0	U	10.0	P	02/06/2025	13:29	Lb134604
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	02/06/2025	14:03	Lb134604
	Barium	100	+/-100	U	100	P	02/06/2025	14:03	Lb134604
	Cadmium	6.00	+/-6.00	U	6.00	P	02/06/2025	14:03	Lb134604
	Chromium	10.0	+/-10.0	U	10.0	P	02/06/2025	14:03	Lb134604
	Lead	12.0	+/-12.0	U	12.0	P	02/06/2025	14:03	Lb134604
	Selenium	20.0	+/-20.0	U	20.0	P	02/06/2025	14:03	Lb134604
	Silver	10.0	+/-10.0	U	10.0	P	02/06/2025	14:03	Lb134604
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	02/06/2025	14:55	Lb134604
	Barium	100	+/-100	U	100	P	02/06/2025	14:55	Lb134604
	Cadmium	6.00	+/-6.00	U	6.00	P	02/06/2025	14:55	Lb134604
	Chromium	10.0	+/-10.0	U	10.0	P	02/06/2025	14:55	Lb134604
	Lead	12.0	+/-12.0	U	12.0	P	02/06/2025	14:55	Lb134604
	Selenium	20.0	+/-20.0	U	20.0	P	02/06/2025	14:55	Lb134604
	Silver	10.0	+/-10.0	U	10.0	P	02/06/2025	14:55	Lb134604
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	02/06/2025	15:13	Lb134604
	Barium	100	+/-100	U	100	P	02/06/2025	15:13	Lb134604
	Cadmium	6.00	+/-6.00	U	6.00	P	02/06/2025	15:13	Lb134604
	Chromium	10.0	+/-10.0	U	10.0	P	02/06/2025	15:13	Lb134604
	Lead	12.0	+/-12.0	U	12.0	P	02/06/2025	15:13	Lb134604
	Selenium	20.0	+/-20.0	U	20.0	P	02/06/2025	15:13	Lb134604
	Silver	10.0	+/-10.0	U	10.0	P	02/06/2025	15:13	Lb134604

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	12:31	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	12:31	LB134636
	Cadmium	6.00	+/-6.00	U	6.00	P	02/07/2025	12:31	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	12:31	LB134636
	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	12:31	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	12:31	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	12:31	LB134636

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	13:01	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	13:01	LB134636
	Cadmium	6.00	+/-6.00	U	6.00	P	02/07/2025	13:01	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	13:01	LB134636
	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	13:01	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	13:01	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	13:01	LB134636
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	13:53	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	13:53	LB134636
	Cadmium	0.41	+/-6.00	J	6.00	P	02/07/2025	13:53	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	13:53	LB134636
	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	13:53	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	13:53	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	13:53	LB134636
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	14:45	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	14:45	LB134636
	Cadmium	0.42	+/-6.00	J	6.00	P	02/07/2025	14:45	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	14:45	LB134636
	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	14:45	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	14:45	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	14:45	LB134636
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	15:37	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	15:37	LB134636
	Cadmium	0.26	+/-6.00	J	6.00	P	02/07/2025	15:37	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	15:37	LB134636
	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	15:37	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	15:37	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	15:37	LB134636
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	16:28	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	16:28	LB134636
	Cadmium	6.00	+/-6.00	U	6.00	P	02/07/2025	16:28	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	16:28	LB134636
	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	16:28	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	16:28	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	16:28	LB134636
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	17:20	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	17:20	LB134636
	Cadmium	0.28	+/-6.00	J	6.00	P	02/07/2025	17:20	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	17:20	LB134636

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	17:20	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	17:20	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	17:20	LB134636
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	18:10	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	18:10	LB134636
	Cadmium	6.00	+/-6.00	U	6.00	P	02/07/2025	18:10	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	18:10	LB134636
	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	18:10	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	18:10	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	18:10	LB134636
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	02/07/2025	18:27	LB134636
	Barium	100	+/-100	U	100	P	02/07/2025	18:27	LB134636
	Cadmium	0.27	+/-6.00	J	6.00	P	02/07/2025	18:27	LB134636
	Chromium	10.0	+/-10.0	U	10.0	P	02/07/2025	18:27	LB134636
	Lead	12.0	+/-12.0	U	12.0	P	02/07/2025	18:27	LB134636
	Selenium	20.0	+/-20.0	U	20.0	P	02/07/2025	18:27	LB134636
	Silver	10.0	+/-10.0	U	10.0	P	02/07/2025	18:27	LB134636

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number

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Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166423TB		**WATER**		**Batch Number:**	**PB166489**		**Prep Date:**	**02/03/2025**	
	Mercury	2.00	<2.00	U	2.00	CV	02/04/2025	12:34	LB134551

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166489BL		**WATER**		**Batch Number:**	**PB166489**		**Prep Date:**	**02/03/2025**	
	Mercury	0.20	<0.20	U	0.20	CV	02/04/2025	11:45	LB134551

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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166423TB		**WATER**		**Batch Number:**	**PB166488**		**Prep Date:**	**02/03/2025**	
	Arsenic	100	<100	U	100	P	02/07/2025	13:22	LB134636
	Barium	500	<500	U	500	P	02/07/2025	13:22	LB134636
	Cadmium	30.0	<30.0	U	30.0	P	02/07/2025	13:22	LB134636
	Chromium	50.0	<50.0	U	50.0	P	02/07/2025	13:22	LB134636
	Lead	60.0	<60.0	U	60.0	P	02/07/2025	13:22	LB134636
	Selenium	100	<100	U	100	P	02/07/2025	13:22	LB134636
	Silver	50.0	<50.0	U	50.0	P	02/07/2025	13:22	LB134636
Sample ID	**Analyte**	**Result (ug/L)**	**Acceptance Limit**	**Conc Qual**	**CRQL ug/L**	**M**	**Analysis Date**	**Analysis Time**	**Run**
PB166488BL		**WATER**		**Batch Number:**	**PB166488**		**Prep Date:**	**02/03/2025**	
	Arsenic	100	<100	U	100	P	02/07/2025	14:15	LB134636
	Barium	500	<500	U	500	P	02/07/2025	14:15	LB134636
	Cadmium	30.0	<30.0	U	30.0	P	02/07/2025	14:15	LB134636
	Chromium	50.0	<50.0	U	50.0	P	02/07/2025	14:15	LB134636
	Lead	60.0	<60.0	U	60.0	P	02/07/2025	14:15	LB134636
	Selenium	100	<100	U	100	P	02/07/2025	14:15	LB134636
	Silver	50.0	<50.0	U	50.0	P	02/07/2025	14:15	LB134636

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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	0.20			-20	20	02/06/2025	13:16	Lb134604
	Barium	2.10	6.0	35	-94	106	02/06/2025	13:16	Lb134604
	Cadmium	3.71	1.0	371	-5	7	02/06/2025	13:16	Lb134604
	Chromium	59.2	52.0	114	42	62	02/06/2025	13:16	Lb134604
	Lead	6.57			-12	12	02/06/2025	13:16	Lb134604
	Selenium	-11.3			-20	20	02/06/2025	13:16	Lb134604
	Silver	-2.78			-10	10	02/06/2025	13:16	Lb134604
ICSAB01	Arsenic	103	104	99	88.4	120	02/06/2025	13:21	Lb134604
	Barium	487	537	91	437	637	02/06/2025	13:21	Lb134604
	Cadmium	1010	972	104	826	1120	02/06/2025	13:21	Lb134604
	Chromium	575	542	106	460	624	02/06/2025	13:21	Lb134604
	Lead	56.8	49.0	116	37	61	02/06/2025	13:21	Lb134604
	Selenium	41.8	46.0	91	26	66	02/06/2025	13:21	Lb134604
	Silver	220	201	110	170	232	02/06/2025	13:21	Lb134604
ICSA01	Arsenic	2.16			-20	20	02/07/2025	12:40	LB134636
	Barium	3.37	6.0	56	-94	106	02/07/2025	12:40	LB134636
	Cadmium	2.97	1.0	297	-5	7	02/07/2025	12:40	LB134636
	Chromium	58.5	52.0	112	42	62	02/07/2025	12:40	LB134636
	Lead	8.02			-12	12	02/07/2025	12:40	LB134636
	Selenium	-11.1			-20	20	02/07/2025	12:40	LB134636
	Silver	1.38			-10	10	02/07/2025	12:40	LB134636
ICSAB01	Arsenic	108	104	104	88.4	120	02/07/2025	12:44	LB134636
	Barium	473	537	88	437	637	02/07/2025	12:44	LB134636
	Cadmium	1020	972	105	826	1120	02/07/2025	12:44	LB134636
	Chromium	575	542	106	460	624	02/07/2025	12:44	LB134636
	Lead	56.3	49.0	115	37	61	02/07/2025	12:44	LB134636
	Selenium	41.6	46.0	90	26	66	02/07/2025	12:44	LB134636
	Silver	223	201	111	170	232	02/07/2025	12:44	LB134636

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1242

contract: RUTW01 **lab code:** CHEM **case no.:** Q1242 **sas no.:** Q1242

matrix: Water **sample id:** Q1262-05 **client id:** 3762MS

Percent Solids for Sample: NA **Spiked ID:** Q1262-05MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	3880		100	U	4000	97		P
Barium	ug/L	75 - 125	1640		644		1000	100		P
Cadmium	ug/L	75 - 125	967		1.09	J	1000	97		P
Chromium	ug/L	75 - 125	2040		18.7	J	2000	101		P
Lead	ug/L	75 - 125	4580		60.0	U	5000	92		P
Mercury	ug/L	75 - 125	49.9		2.00	U	40.0	125		CV
Selenium	ug/L	75 - 125	9410		100	U	10000	94		P
Silver	ug/L	75 - 125	369		50.0	U	380	97		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1242

contract: RUTW01 **lab code:** CHEM **case no.:** Q1242 **sas no.:** Q1242

matrix: Water **sample id:** Q1262-05 **client id:** 3762MSD

Percent Solids for Sample: NA **Spiked ID:** Q1262-05MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	3860		100	U	4000	96		P
Barium	ug/L	75 - 125	1560		644		1000	92		P
Cadmium	ug/L	75 - 125	964		1.09	J	1000	96		P
Chromium	ug/L	75 - 125	2040		18.7	J	2000	101		P
Lead	ug/L	75 - 125	4560		60.0	U	5000	91		P
Mercury	ug/L	75 - 125	47.2		2.00	U	40.0	118		CV
Selenium	ug/L	75 - 125	9480		100	U	10000	95		P
Silver	ug/L	75 - 125	366		50.0	U	380	96		P

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Metals
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Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Matrix: Water **Sample ID:** Q1262-05 **Client ID:** 3762DUP

Percent Solids for Sample: NA **Duplicate ID** Q1262-05DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	100	U	100	U			P
Barium	ug/L	20	644		653		1		P
Cadmium	ug/L	20	1.09	J	0.95	J	14		P
Chromium	ug/L	20	18.7	J	17.3	J	8		P
Lead	ug/L	20	60.0	U	60.0	U			P
Mercury	ug/L	20	2.00	U	2.00	U			CV
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Matrix: Water **Sample ID:** Q1262-05MS **Client ID:** 3762MSD

Percent Solids for Sample: NA **Duplicate ID** Q1262-05MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	3880		3860		1		P
Barium	ug/L	20	1640		1560		5		P
Cadmium	ug/L	20	967		964		0		P
Chromium	ug/L	20	2040		2040		0		P
Lead	ug/L	20	4580		4560		0		P
Mercury	ug/L	20	49.9		47.2		6		CV
Selenium	ug/L	20	9410		9480		1		P
Silver	ug/L	20	369		366		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166488BS							
Arsenic	ug/L	4000	4010		100	80 - 120	P
Barium	ug/L	1000	895		90	80 - 120	P
Cadmium	ug/L	1000	973		97	80 - 120	P
Chromium	ug/L	2000	2040		102	80 - 120	P
Lead	ug/L	5000	4820		96	80 - 120	P
Selenium	ug/L	10000	10200		102	80 - 120	P
Silver	ug/L	380	376		99	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166489BS							
Mercury	ug/L	4.0	4.23		106	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

3762L

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134604 **Lab Sample ID :** Q1262-05L **SDG No.:** Q1242

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	100	U	500	U			P
Barium	644		597	J	7		P
Cadmium	1.09	J	150	U	100.0		P
Chromium	18.7	J	250	U	100.0		P
Lead	60.0	U	300	U			P
Mercury	2.00	U	10.0	U			CV
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

METAL PREPARATION & INSTRUMENT DATA

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1242 **SAS No.:** Q1242

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1242 **SAS No.:** Q1242

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166488**						
PB166423TB	PB166423TB	MB	WATER	02/03/2025	5.0	25.0	
PB166488BL	PB166488BL	MB	WATER	02/03/2025	5.0	25.0	
PB166488BS	PB166488BS	LCS	WATER	02/03/2025	5.0	25.0	
Q1242-04	JPP-6.2-013025	SAM	WATER	02/03/2025	5.0	25.0	
Q1262-05DUP	3762DUP	DUP	WATER	02/03/2025	5.0	25.0	
Q1262-05MS	3762MS	MS	WATER	02/03/2025	5.0	25.0	
Q1262-05MSD	3762MSD	MSD	WATER	02/03/2025	5.0	25.0	

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1242 **SAS No.:** Q1242

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166489**						
PB166423TB	PB166423TB	MB	WATER	02/03/2025	3.0	30.0	
PB166489BL	PB166489BL	MB	WATER	02/03/2025	30.0	30.0	
PB166489BS	PB166489BS	LCS	WATER	02/03/2025	30.0	30.0	
Q1242-04	JPP-6.2-013025	SAM	WATER	02/03/2025	3.0	30.0	
Q1262-05DUP	3762DUP	DUP	WATER	02/03/2025	3.0	30.0	
Q1262-05MS	3762MS	MS	WATER	02/03/2025	3.0	30.0	
Q1262-05MSD	3762MSD	MSD	WATER	02/03/2025	3.0	30.0	

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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1242 **Sas no.:** Q1242 **Sdg no.:** Q1242

Instrument id number: **Method:** **Run number:** LB134551

Start date: 02/04/2025 **End date:** 02/04/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1112	HG
S0.2	S0.2	1	1115	HG
S2.5	S2.5	1	1117	HG
S5	S5	1	1119	HG
S7.5	S7.5	1	1122	HG
S10	S10	1	1127	HG
ICV83	ICV83	1	1129	HG
ICB83	ICB83	1	1132	HG
CCV18	CCV18	1	1134	HG
CCB18	CCB18	1	1136	HG
CRA	CRA	1	1138	HG
PB166489BL	PB166489BL	1	1145	HG
PB166489BS	PB166489BS	1	1151	HG
CCV19	CCV19	1	1205	HG
CCB19	CCB19	1	1207	HG
Q1242-04	JPP-6.2-013025	1	1218	HG
Q1262-05DUP	3762DUP	1	1223	HG
Q1262-05MS	3762MS	1	1225	HG
Q1262-05MSD	3762MSD	1	1227	HG
CCV20	CCV20	1	1230	HG
CCB20	CCB20	1	1232	HG
PB166423TB	PB166423TB	1	1234	HG
Q1262-05L	3762L	5	1236	HG
CCV21	CCV21	1	1241	HG
CCB21	CCB21	1	1243	HG

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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1242 **Sas no.:** Q1242 **Sdg no.:** Q1242

Instrument id number: **Method:** **Run number:** Lb134604

Start date: 02/06/2025 **End date:** 02/06/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1223	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1227	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1232	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1236	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1240	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1244	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1259	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1303	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1308	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1312	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1316	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1321	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1325	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1329	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1359	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1403	Ag,As,Ba,Cd,Cr,Pb,Se
Q1262-05DUP	3762DUP	1	1410	Ag,As,Ba,Cd,Cr,Pb,Se
Q1262-05L	3762L	5	1414	Ag,As,Ba,Cd,Cr,Pb,Se
Q1262-05MS	3762MS	1	1419	Ag,As,Ba,Cd,Cr,Pb,Se
Q1262-05MSD	3762MSD	1	1423	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1451	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1455	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1509	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1513	Ag,As,Ba,Cd,Cr,Pb,Se

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metals
- 14 -
ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1242 **Sas no.:** Q1242 **Sdg no.:** Q1242

Instrument id number: **Method:** **Run number:** LB134636

Start date: 02/07/2025 **End date:** 02/07/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1140	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1144	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1148	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1152	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1157	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1201	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1211	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1227	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1231	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1235	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1240	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1244	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1257	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1301	Ag,As,Ba,Cd,Cr,Pb,Se
PB166423TB	PB166423TB	1	1322	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1349	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1353	Ag,As,Ba,Cd,Cr,Pb,Se
Q1242-04	JPP-6.2-013025	1	1411	Ag,As,Ba,Cd,Cr,Pb,Se
PB166488BL	PB166488BL	1	1415	Ag,As,Ba,Cd,Cr,Pb,Se
PB166488BS	PB166488BS	1	1420	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1441	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1445	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1532	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1537	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1624	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1628	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1716	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1720	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1800	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	1810	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	1823	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	1827	Ag,As,Ba,Cd,Cr,Pb,Se

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LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-03	**JPP-6.2-013025**	**SOIL**			**01/30/25 12:52**			**01/30/25**
			Paint Filter	9095B			02/04/25 09:48	
Q1242-04	**JPP-6.2-013025**	**SOIL**			**01/30/25 12:52**			**01/30/25**
			Corrosivity	9045D			01/31/25 18:00	
			Ignitability	1030			01/31/25 13:45	
			Reactive Cyanide	9012B		02/03/25	02/03/25 11:16	
			Reactive Sulfide	9034		01/31/25	01/31/25 15:30	

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 12:52
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-03	Matrix:	SOIL
		% Solid:	81.2

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 09:48	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 12:52
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-04	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	11.6	H	1	0	0	pH		01/31/25 18:00	9045D
Ignitability	NO		1	0	0	oC		01/31/25 13:45	1030
Reactive Cyanide	0.0095	J	1	0.0087	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:16	9012B
Reactive Sulfide	6.31	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 15:30	9034

Comments: pH result reported at temperature 21.0 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

QC RESULT SUMMARY

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Initial and Continuing Calibration Verification

Client:	RU2 Engineering, LLC	**SDG No.:**	Q1242
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	**RunNo.:**	LB134515

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
Corrosivity		pH	7.02	7	100	90-110	01/31/2025
Sample ID:	CCV1						
Corrosivity		pH	2.01	2.00	101	90-110	01/31/2025
Sample ID:	CCV2						
Corrosivity		pH	12.02	12.00	100	90-110	01/31/2025

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Initial and Continuing Calibration Verification

Client:	RU2 Engineering, LLC	**SDG No.:**	Q1242
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	**RunNo.:**	LB134524

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.097	0.099	98	85-115	02/03/2025
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	02/03/2025
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	02/03/2025
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.25	0.25	100	90-110	02/03/2025

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Initial and Continuing Calibration Blank Summary

Client:	RU2 Engineering, LLC	**SDG No.:**	Q1242
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	**RunNo.:**	LB134524

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025

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Preparation Blank Summary

Client: RU2 Engineering, LLC **SDG No.:** Q1242

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB166422BL							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	01/31/2025
Sample ID: PB166486BL							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	02/03/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1242
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1215-04
Client ID: JPP-29.1-012825DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		01/31/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1242
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1232-03
Client ID: JPP-46.2-012925DUP
Percent Solids for Spike Sample: 89.2

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		02/04/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1242
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1232-04
Client ID: JPP-46.2-012925DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Reactive Sulfide	mg/Kg	+/-20	1.58	J	1.58	J	1	0		01/31/2025
Reactive Cyanide	mg/Kg	+/-20	0.0087	U	0.0088	U	1	0		02/03/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1242
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1241-04
Client ID: JPP-3.5-013025DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Corrosivity	pH	+/-20	8.62		8.63		1	0.12		01/31/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1242
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1242-04
Client ID: JPP-6.2-013025DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		01/31/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1242
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1281-01
Client ID: OR-02--2-03-2025DUP
Percent Solids for Spike Sample: 86.7

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		02/04/2025

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Q1242
QUOTE NO.
COC Number 2041688

18
18.1

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: RU2 Engineering LLC
ADDRESS: 2 Melinda Drive, Monroe Twp, NJ 08831
CITY ZIP:
ATTENTION: Rutu Mavani
PHONE: 609-409-4564 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: SANDTWOBR B/MCR Project
PROJECT NO.: LOCATION: Brooklyn, NYC
PROJECT MANAGER: Rutu Mavani
e-mail: Rmavani@Ru2eng.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Same as Company address PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard 10 days DAYS*
HARDCOPY (DATA PACKAGE): Standard 10 days DAYS*
EDD: Standard 10 days DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced
- ☐ US EPA CLP
- ☐ NYS ASP A
- ☒ NYS ASP B
- ☐ Other
- ☐ EDD FORMAT

ANALYSIS

1 TCL VOC + TICs MTBE/TBA
2 TCLP VOCs
3 TPH GRO-DRO
4 TCL SVOCs + TICs
5 TAL Metals
6 Pesticides, PCBs
7 RCRA characteristics
8 Paint filter
9 full TCLP

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9
1.	JPP-6.2-013025	Soil		G	1/30/25	12:44	3	X	X	X						
2.	JPP-6.2-93025	Soil	C		1/30/25	12:52	8			X	X	X	X	X	X	X
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. RA	1-30-25 1453	1.
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 4.1 °C
Comments: Preserve extra Sample Jar if additional analysis is Required
IR-Gun #1

Page 2 of 2

CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete ☐ YES ☐ NO

Copyright © 2023

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

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LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1242 RUTW01
Client Name : RU2 Engineering, LLC
Client Contact : Rutu Manani
Invoice Name : RU2 Engineering, LLC
Invoice Contact : Rutu Manani

Order Date : 1/30/2025 3:02:00 PM
Project Name : NYCDDC SANTWOBR Bi
Receive DateTime : 1/30/2025 2:53:00 PM
Purchase Order :

Project Mgr :
Report Type : NYS ASP B
EDD Type : Excel NY
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1242-01	JPP-6.2-013025	Solid	01/30/2025	12:44					
					VOCMS Group1		8260D		10 Bus. Days

Relinguished By : [signature]
Date / Time : 1-30-25 15:50

Received By : [signature]
Date / Time : 1/30/25 1530

Storage Area : VOA Refridgerator Room

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Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	Q1242 RUTW01	**Order Date :**	1/30/2025 3:02:00 PM	**Project Mgr :**	
Client Name :	RU2 Engineering, LLC	**Project Name :**	NYCDDC SANTWOBR B1	**Report Type :**	NYS ASP B
Client Contact :	Rutu Manani	**Receive DateTime :**	1/30/2025 2:53:00 PM	**EDD Type :**	Excel NY
Invoice Name :	RU2 Engineering, LLC	**Purchase Order :**		**Hard Copy Date :**	
Invoice Contact :	Rutu Manani			**Date Signoff :**	

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1242-01	JPP-6.2-013025	Solid	01/30/2025	12:44					
					Gasoline Range Organics		8015D		10 Bus. Days

Relinguished By : CR
Date / Time : 1-30-25 1550

Received By : JC
Date / Time : 1/30/25 1550

Storage Area : VOA Refridgerator Room