



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
 FORM S-1

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 #)
RE114D2-20241216	P5317-01	8260-Low	8270-Modified				
RW4-20241216	P5317-02	8260-Low	8270-Modified				
TT191D1-20241216	P5317-03	8260-Low	8270-Modified				
TT191D2-20241216	P5317-04	8260-Low	8270-Modified				
TT163S1-20241216	P5317-05	8260-Low	8270-Modified				
DUP-04-20241216	P5317-06	8260-Low	8270-Modified				
RW8-MW01S-20241216	P5317-07	8260-Low	8270-Modified				
RW8-MW01D1-20241216	P5317-08	8260-Low	8270-Modified				
TT158S1-20241217	P5317-09	8260-Low	8270-Modified				
TT158I1-20241217	P5317-10	8260-Low	8270-Modified				
DUP-05-20241217	P5317-11	8260-Low	8270-Modified				
TT172S1-20241217	P5317-12	8260-Low	8270-Modified				
RW9-MW01S-20241217	P5317-13	8260-Low	8270-Modified				
RW9-MW01D1-20241217	P5317-14	8260-Low	8270-Modified				
RW9-MW01D2-20241217	P5317-15	8260-Low	8270-Modified				
RW9-MW01D3-20241217	P5317-16	8260-Low	8270-Modified				
DUP-06-20241217	P5317-17	8260-Low	8270-Modified				
RE132D5-20241217	P5317-18	8260-Low	8270-Modified				
RE132D6-20241217	P5317-21	8260-Low	8270-Modified				
RE132D7-20241217	P5317-22	8260-Low	8270-Modified				
TB	P5317-23	8260-Low	8270-Modified				
RW8-MW01D2-20241217	P5317-24	8260-Low	8270-Modified				
RW8-MW01D3-20241217	P5317-25	8260-Low	8270-Modified				

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
P5317-01	Water	12/16/24	12/17/24	12/18/24	12/20/24
P5317-02	Water	12/16/24	12/17/24	12/18/24	12/20/24
P5317-03	Water	12/16/24	12/17/24	12/18/24	12/20/24
P5317-04	Water	12/16/24	12/17/24	12/18/24	12/20/24
P5317-05	Water	12/16/24	12/17/24	12/18/24	12/20/24
P5317-06	Water	12/16/24	12/17/24	12/18/24	12/24/24
P5317-07	Water	12/16/24	12/17/24	12/18/24	12/24/24
P5317-08	Water	12/16/24	12/17/24	12/18/24	12/21/24
P5317-09	Water	12/17/24	12/17/24	12/18/24	12/20/24
P5317-10	Water	12/17/24	12/17/24	12/18/24	12/20/24
P5317-11	Water	12/17/24	12/17/24	12/18/24	12/21/24
P5317-12	Water	12/17/24	12/17/24	12/18/24	12/21/24
P5317-13	Water	12/17/24	12/17/24	12/18/24	12/21/24
P5317-14	Water	12/17/24	12/17/24	12/18/24	12/21/24
P5317-15	Water	12/17/24	12/17/24	12/18/24	12/23/24
P5317-16	Water	12/17/24	12/17/24	12/18/24	12/23/24
P5317-17	Water	12/17/24	12/17/24	12/18/24	12/23/24
P5317-18	Water	12/17/24	12/17/24	12/18/24	12/23/24
P5317-21	Water	12/17/24	12/17/24	12/18/24	12/23/24
P5317-22	Water	12/17/24	12/17/24	12/18/24	12/23/24
P5317-24	Water	12/17/24	12/17/24	12/18/24	12/23/24
P5317-25	Water	12/17/24	12/17/24	12/18/24	12/23/24

\* Details For Test : SVOC-SIMGroup1



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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
P5317-01	Water	12/16/24	12/17/24		12/19/24
P5317-02	Water	12/16/24	12/17/24		12/19/24
P5317-03	Water	12/16/24	12/17/24		12/20/24
P5317-04	Water	12/16/24	12/17/24		12/19/24
P5317-05	Water	12/16/24	12/17/24		12/19/24
P5317-06	Water	12/16/24	12/17/24		12/23/24
P5317-07	Water	12/16/24	12/17/24		12/19/24
P5317-08	Water	12/16/24	12/17/24		12/19/24
P5317-09	Water	12/17/24	12/17/24		12/19/24
P5317-10	Water	12/17/24	12/17/24		12/19/24
P5317-11	Water	12/17/24	12/17/24		12/23/24
P5317-12	Water	12/17/24	12/17/24		12/19/24
P5317-13	Water	12/17/24	12/17/24		12/19/24
P5317-14	Water	12/17/24	12/17/24		12/19/24
P5317-15	Water	12/17/24	12/17/24		12/19/24
P5317-16	Water	12/17/24	12/17/24		12/19/24
P5317-17	Water	12/17/24	12/17/24		12/23/24
P5317-18	Water	12/17/24	12/17/24		12/19/24
P5317-21	Water	12/17/24	12/17/24		12/23/24
P5317-22	Water	12/17/24	12/17/24		12/23/24
P5317-23	Water	12/17/24	12/17/24		12/19/24
P5317-24	Water	12/17/24	12/17/24		12/23/24
P5317-25	Water	12/17/24	12/17/24		12/23/24

\* Details For Test : VOCMS Group1



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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
P5317-01	Water	8260-Low	5030		
P5317-02	Water	8260-Low	5030		
P5317-03	Water	8260-Low	5030		
P5317-04	Water	8260-Low	5030		
P5317-05	Water	8260-Low	5030		
P5317-06	Water	8260-Low	5030		
P5317-07	Water	8260-Low	5030		
P5317-08	Water	8260-Low	5030		
P5317-09	Water	8260-Low	5030		
P5317-10	Water	8260-Low	5030		
P5317-11	Water	8260-Low	5030		
P5317-12	Water	8260-Low	5030		
P5317-13	Water	8260-Low	5030		
P5317-14	Water	8260-Low	5030		
P5317-15	Water	8260-Low	5030		
P5317-16	Water	8260-Low	5030		
P5317-17	Water	8260-Low	5030		
P5317-18	Water	8260-Low	5030		
P5317-19	Water	8260-Low	5030		
P5317-20	Water	8260-Low	5030		
P5317-21	Water	8260-Low	5030		
P5317-22	Water	8260-Low	5030		
P5317-23	Water	8260-Low	5030		
P5317-24	Water	8260-Low	5030		
P5317-25	Water	8260-Low	5030		



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FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
P5317-01	Water	8270-Modified	3510C		
P5317-02	Water	8270-Modified	3510C		
P5317-03	Water	8270-Modified	3510C		
P5317-04	Water	8270-Modified	3510C		
P5317-05	Water	8270-Modified	3510C		
P5317-06	Water	8270-Modified	3510C		
P5317-07	Water	8270-Modified	3510C		
P5317-08	Water	8270-Modified	3510C		
P5317-09	Water	8270-Modified	3510C		
P5317-10	Water	8270-Modified	3510C		
P5317-11	Water	8270-Modified	3510C		
P5317-12	Water	8270-Modified	3510C		
P5317-13	Water	8270-Modified	3510C		
P5317-14	Water	8270-Modified	3510C		
P5317-15	Water	8270-Modified	3510C		
P5317-16	Water	8270-Modified	3510C		
P5317-17	Water	8270-Modified	3510C		
P5317-18	Water	8270-Modified	3510C		
P5317-19	Water	8270-Modified	3510C		
P5317-20	Water	8270-Modified	3510C		
P5317-21	Water	8270-Modified	3510C		
P5317-22	Water	8270-Modified	3510C		
P5317-24	Water	8270-Modified	3510C		
P5317-25	Water	8270-Modified	3510C		



## Cover Page

**Order ID :** P5317

**Project ID :** NAVFAC NWIRP Bethpage, NY Site 1 OU-2 - 32258

**Client :** AECOM Technical Services, Inc.

### Lab Sample Number

### Client Sample Number

P5317-01	RE114D2-20241216
P5317-02	RW4-20241216
P5317-03	TT191D1-20241216
P5317-04	TT191D2-20241216
P5317-05	TT163S1-20241216
P5317-06	DUP-04-20241216
P5317-07	RW8-MW01S-20241216
P5317-08	RW8-MW01D1-20241216
P5317-09	TT158S1-20241217
P5317-10	TT158I1-20241217
P5317-11	DUP-05-20241217
P5317-12	TT172S1-20241217
P5317-13	RW9-MW01S-20241217
P5317-14	RW9-MW01D1-20241217
P5317-15	RW9-MW01D2-20241217
P5317-16	RW9-MW01D3-20241217
P5317-17	DUP-06-20241217
P5317-18	RE132D5-20241217
P5317-19	RE132D5-20241217MS
P5317-20	RE132D5-20241217MSD
P5317-21	RE132D6-20241217
P5317-22	RE132D7-20241217
P5317-23	TB
P5317-24	RW8-MW01D2-20241217
P5317-25	RW8-MW01D3-20241217

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: 12/31/2024



## **CASE NARRATIVE**

**AECOM Technical Services, Inc.**

**Project Name: NAVFAC NWIRP Bethpage, NY Site 1 OU-2 - 32258**

**Project # N/A**

**Chemtech Project # P5317**

**Test Name: VOCMS Group1**

### **A. Number of Samples and Date of Receipt:**

25 Water samples were received on 12/17/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group1. This data package contains results for VOCMS Group1.

### **C. Analytical Techniques:**

The analysis performed on instrument MSVOA\_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI 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 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 %RSD is greater than 20% in the Initial Calibration method (82X121124W.M) for t-1,3-Dichloropropene, Dibromochloromethane, Bromoform these compounds are passing on Quadratic Regression.

The Continuous Calibration File ID VX044397.D met the requirements except for Chloroethane is failing high but no positive hit in associate sample therefore no corrective action taken.

The Continuous Calibration File ID VX044438.D met the requirements except for Methylcyclohexane is failing high but no positive hit in associate sample therefore no corrective action taken.



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The Continuous Calibration File ID VX044466.D met the requirements except for Tetrachloroethene failing marginally high and Methylcyclohexane is failing high but no positive hit in associate sample therefore no corrective action taken.  
The Tuning criteria met requirements.

Samples RE132D7-20241217 was diluted due to samples past history of high concentration of Trichloroethene.

Samples RW4-20241216, RE132D5-20241217 were diluted due to high concentrations.

**E. Additional Comments:**

The not QT review data is reported in the Miscellaneous.  
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.

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Signature\_\_\_\_\_



## CASE NARRATIVE

**AECOM Technical Services, Inc.**

**Project Name: NAVFAC NWIRP Bethpage, NY Site 1 OU-2 - 32258**

**Project # N/A**

**Chemtech Project # P5317**

**Test Name: SVOC-SIMGroup1**

### **A. Number of Samples and Date of Receipt:**

25 Water samples were received on 12/17/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group1. This data package contains results for SVOC-SIMGroup1.

### **C. Analytical Techniques:**

The samples were analyzed on instrument BNA\_N using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOC-SIMGroup1 was based on method 8270-Modified and extraction was done based on method 3510.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for RE114D2-20241216

[Terphenyl-d14 - 155%],

RW4-20241216 [Terphenyl-d14 - 143%],

TT191D1-20241216 [Terphenyl-d14 - 152%],

TT191D2-20241216 [ Terphenyl-d14 - 157%],

TT163S1-20241216 [Nitrobenzene-d5 - 112%, Terphenyl-d14 - 179%],

DUP-04-20241216 [2-Fluorobiphenyl - 108%, Terphenyl-d14 - 162%],

RW8-MW01S-20241216 [Terphenyl-d14 - 182%],

RW8-MW01D1-20241216 [Terphenyl-d14 - 191%],

TT158S1-20241217 [Nitrobenzene-d5 - 112%, Terphenyl-d14 - 192%],

TT158I1-20241217 [Terphenyl-d14 - 154%],

DUP-05-20241217 [Terphenyl-d14 - 163%],

TT172S1-20241217 [Terphenyl-d14 - 144%],

RW9-MW01S-20241217 [2-Fluorobiphenyl - 112%, Terphenyl-d14 - 157%],

RW9-MW01D1-20241217 [Terphenyl-d14 - 142%],

RW9-MW01D2-20241217 [Terphenyl-d14 - 155%],

RW9-MW01D3-20241217 [Terphenyl-d14 - 162%],

DUP-06-20241217 [2-Fluorobiphenyl - 111%, Terphenyl-d14 - 169%],

RE132D5-20241217 [Terphenyl-d14 - 134%],

RE132D5-20241217MS [Terphenyl-d14 - 147%],

RE132D5-20241217MSD [Terphenyl-d14 - 168%],  
RE132D6-20241217 [Terphenyl-d14 - 175%],  
RE132D6-20241217DL [2-Fluorobiphenyl - 113%, Nitrobenzene-d5 - 130%, Terphenyl-d14 - 222%],  
RE132D7-20241217 [Terphenyl-d14 - 138%],  
RW8-MW01D2-20241217 [2-Fluorobiphenyl - 111%, Nitrobenzene-d5 - 122%, Terphenyl-d14 - 190%],  
RW8-MW01D3-20241217 [2-Fluorobiphenyl - 109%, Nitrobenzene-d5 - 112%, Terphenyl-d14 - 160%],  
PB165723BL [Nitrobenzene-d5 - 122%, Terphenyl-d14 - 134%],  
PB165723BS [2-Fluorobiphenyl - 115%, Nitrobenzene-d5 - 141%, Terphenyl-d14 - 142%],  
PB165724BL [Nitrobenzene-d5 - 114%, Terphenyl-d14 - 134%],  
PB165724BS [2-Fluorobiphenyl - 115%, Nitrobenzene-d5 - 125%],  
PB165724BSD [2-Fluorobiphenyl - 116% and Nitrobenzene-d5 - 140%].

The Internal Standards Areas met the acceptable requirements except for RE132D6-20241217DL, The failure Internal Standard not associated with the client parameters list, therefore no corrective action was taken.

The Retention Times were acceptable for all samples.

The MS {P5317-19MS} with File ID: BN035783.D recoveries met the requirements for all compounds except for 1,4-Dioxane[195%], Due to being a poor compound therefore no corrective action was taken.

The MSD recoveries met the acceptable requirements .

The RPD for {P5317-20MSD} with File ID: BN035784.D met criteria except for 1,4-Dioxane[89%], due to difference in results of MS and MSD .

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 File ID BN035731.D met the requirements except for 2,4,6-Tribromophenol, The failure compound not associated with the client parameters list, therefore no corrective action was taken.

The Continuous Calibration File ID BN035747.D met the requirements except for 2,4,6-Tribromophenol,2-Fluorobiphenyl,2-Fluorophenol,Nitrobenzene-d5,Phenol-d6 and Terphenyl-d14, The failure compound not associated with the client parameters list, therefore no corrective action was taken.



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The Continuous Calibration File ID BN035749.D met the requirements except for Nitrobenzene-d5, The failure compound not associated with the client parameters list, therefore no corrective action was taken.

The Continuous Calibration File ID BN035776.D met the requirements except for 2,4,6-Tribromophenol, The failure compound not associated with the client parameters list, therefore no corrective action was taken.

The Continuous Calibration File ID BN035794.D met the requirements except for 2,4,6-Tribromophenol, The failure compound not associated with the client parameters list, therefore no corrective action was taken.

The Continuous Calibration File ID BN035845.D met the requirements except for Nitrobenzene-d5, The failure compound not associated with the client parameters list, therefore no corrective action was taken.

The Tuning criteria met requirements.

Samples RE132D5-20241217 was diluted due to bad matrix sample run straight where End Continuous Calibration missing so based on that analysis lab analyzed Sam# RE132D5-20241217 analyzed with direct 2x dilution.

Sample RE132D6-20241217 was diluted due to high concentration.

**E. Additional Comments:**

The Sam# RE132D5-20241217, Samples original analyzed with direct 2x dilution is reported as screening data in miscellaneous data.

The sample # RE132D5-20241217MS and RE132D5-20241217MS is failing for cis-1,2-Dichloroethene and the original sample(RE132D5-20241217) is reported with M flag for this compounds.

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.



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Signature \_\_\_\_\_

## 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
<b>U</b>	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.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>J</b>	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>B</b>	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
<b>E</b>	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>D</b>	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
<b>P</b>	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”.
<b>N</b>	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.
<b>A</b>	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements

**APPENDIX A**

**QA REVIEW GENERAL DOCUMENTATION**

Project #: P5317

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 Custody

✓

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: 12/31/2024