

ANALYTICAL RESULTS SUMMARY

GENERAL CHEMISTRY
SEMI-VOLATILE ORGANICS

PROJECT NAME : NWIRP BETHPAGE 112G08005-WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : Q2697

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q2697

Project ID : NWIRP Bethpage 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

Q2697-01
Q2697-02
Q2697-03

Client Sample Number

RW7-SP100-20250724
RW7-SP201-20250724
RW7-SP303-20250724

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: 7/31/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: NWIRP Bethpage 112G08005-WE13

Project Manager : Ernie Wu

Order ID # Q2697

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

3 Water samples were received on 07/25/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1. 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-GGA. The 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 were met for all analysis.

The Internal Standards Areas were met for all analysis.

The Retention Times were met for all analysis.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank Spike Duplicate met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration File ID BN037548.D met the requirements except for 2,4,6-Tribromophenol. Failed compound is not associated with DOD, therefor no further corrective action was taken.

The Tuning criteria met requirements.

E. Additional Comments:

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."

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 <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.

Signature_____



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

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: NWIRP Bethpage 112G08005-WE13

Project Manager : Ernie Wu

Order ID # Q2697

Test Name: Anions Group4

A. Number of Samples and Date of Receipt:

1 Water sample was received on 07/25/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Anions Group4. This data package contains results for Anions Group4.

C. Analytical Techniques:

The analysis of Anions Group4 was based on method 300.0.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all compounds.

The Duplicate analysis met criteria for all compounds.

The Matrix Spike analysis met criteria for all compounds.

The Matrix Spike Duplicate analysis met criteria for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

E. Additional Comments:

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).

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_____

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

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 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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2697

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: 07/31/2025

LAB CHRONICLE

OrderID:	Q2697	OrderDate:	7/25/2025 10:41:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	NWIRP Bethpage 112G08005-WE13
Contact:	Ernie Wu	Location:	D51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2697-01	RW7-SP100-2025072 4	Water			07/24/25			07/25/25
			SVOC-SIMGroup1	8270-Modified		07/29/25	07/30/25	
Q2697-02	RW7-SP201-2025072 4	Water			07/24/25			07/25/25
			SVOC-SIMGroup1	8270-Modified		07/29/25	07/30/25	
Q2697-03	RW7-SP303-2025072 4	Water			07/24/25			07/25/25
			SVOC-SIMGroup1	8270-Modified		07/29/25	07/30/25	



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Fax : 908 789 8922

Hit Summary Sheet SW-846

SDG No.: Q2697
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	RW7-SP100-20250724							
Q2697-01	RW7-SP100-20250724	WATER	1,4-Dioxane	3.100	0.07	0.2	0.2	ug/L
			Total Svoc :	3.10				
			Total Concentration:	3.10				



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/25/25
Client Sample ID:	RW7-SP100-20250724	SDG No.:	Q2697
Lab Sample ID:	Q2697-01	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN037552.D	1	07/29/25 08:49	07/30/25 12:03	PB169039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	3.10		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.26		30 - 150		65%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.34		30 - 150		84%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		78%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		53 - 106		83%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		115%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2150	7.724				
1146-65-2	Naphthalene-d8	5440	10.498				
15067-26-2	Acenaphthene-d10	2760	14.355				
1517-22-2	Phenanthrene-d10	5500	17.086				
1719-03-5	Chrysene-d12	4220	21.277				
1520-96-3	Perylene-d12	3680	23.51				

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/25/25
Client Sample ID:	RW7-SP201-20250724	SDG No.:	Q2697
Lab Sample ID:	Q2697-02	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN037553.D	1	07/29/25 08:49	07/30/25 12:39	PB169039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.26		30 - 150		65%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		86%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		76%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		53 - 106		82%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.38		58 - 132		94%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2520	7.724				
1146-65-2	Naphthalene-d8	6120	10.498				
15067-26-2	Acenaphthene-d10	2960	14.355				
1517-22-2	Phenanthrene-d10	5990	17.086				
1719-03-5	Chrysene-d12	5390	21.277				
1520-96-3	Perylene-d12	5030	23.513				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

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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

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/25/25
Client Sample ID:	RW7-SP303-20250724	SDG No.:	Q2697
Lab Sample ID:	Q2697-03	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	910 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN037554.D	1	07/29/25 08:49	07/30/25 13:16	PB169039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.22	U	0.070	0.22	0.22	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.27		30 - 150		67%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		89%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		53 - 106		81%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.45		58 - 132		113%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1820	7.724				
1146-65-2	Naphthalene-d8	4480	10.498				
15067-26-2	Acenaphthene-d10	2280	14.355				
1517-22-2	Phenanthrene-d10	4420	17.086				
1719-03-5	Chrysene-d12	3550	21.277				
1520-96-3	Perylene-d12	3010	23.513				

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

Surrogate Summary

SW-846

SDG No.: Q2697

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB169039BL	PB169039BL	2-Methylnaphthalene-d10	0.4	0.33	83		30	150
		Fluoranthene-d10	0.4	0.34	86		30	150
		Nitrobenzene-d5	0.4	0.36	89		55	111
		2-Fluorobiphenyl	0.4	0.38	96		53	106
		Terphenyl-d14	0.4	0.40	100		58	132
PB169039BS	PB169039BS	2-Methylnaphthalene-d10	0.4	0.34	85		30	150
		Fluoranthene-d10	0.4	0.31	77		30	150
		Nitrobenzene-d5	0.4	0.36	89		55	111
		2-Fluorobiphenyl	0.4	0.40	100		53	106
		Terphenyl-d14	0.4	0.37	93		58	132
PB169039BSD	PB169039BSD	2-Methylnaphthalene-d10	0.4	0.33	83		30	150
		Fluoranthene-d10	0.4	0.31	77		30	150
		Nitrobenzene-d5	0.4	0.34	86		55	111
		2-Fluorobiphenyl	0.4	0.41	102		53	106
		Terphenyl-d14	0.4	0.37	93		58	132
Q2697-01	RW7-SP100-20250724	2-Methylnaphthalene-d10	0.4	0.26	65		30	150
		Fluoranthene-d10	0.4	0.34	84		30	150
		Nitrobenzene-d5	0.4	0.31	78		55	111
		2-Fluorobiphenyl	0.4	0.33	83		53	106
		Terphenyl-d14	0.4	0.46	115		58	132
Q2697-02	RW7-SP201-20250724	2-Methylnaphthalene-d10	0.4	0.26	65		30	150
		Fluoranthene-d10	0.4	0.35	86		30	150
		Nitrobenzene-d5	0.4	0.31	76		55	111
		2-Fluorobiphenyl	0.4	0.33	82		53	106
		Terphenyl-d14	0.4	0.38	94		58	132
Q2697-03	RW7-SP303-20250724	2-Methylnaphthalene-d10	0.4	0.27	67		30	150
		Fluoranthene-d10	0.4	0.36	89		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.33	81		53	106
		Terphenyl-d14	0.4	0.45	113		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q2697</u>	Analytical Method:	<u>8270-Modified</u>
Client:	<u>Tetra Tech NUS, Inc.</u>	DataFile:	<u>BN037555.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits		RPD
								Qual	Low	High		
PB169039BS	1,4-Dioxane	0.4	0.31	ug/L	78				70	130		

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2697

Analytical Method: 8270-Modified

Client: Tetra Tech NUS, Inc.

DataFile: BN037556.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB169039BSD	1,4-Dioxane	0.4	0.30	ug/L	75	3			70	130	20

A
B
C
D
E
F
G

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Client ID

PB169039BL

Lab Name: Alliance

Contract: TETR06

Lab Code: ACE

SDG NO.: Q2697

Lab File ID: BN037549.D

Lab Sample ID: PB169039BL

Instrument ID: BNA_N

Date Extracted: 07/29/2025

Matrix: (soil/water) Water

Date Analyzed: 07/30/2025

Level: (low/med) LOW

Time Analyzed: 10:14

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB169039BS	PB169039BS	BN037555.D	07/30/2025
RW7-SP100-20250724	Q2697-01	BN037552.D	07/30/2025
RW7-SP201-20250724	Q2697-02	BN037553.D	07/30/2025
RW7-SP303-20250724	Q2697-03	BN037554.D	07/30/2025
PB169039BSD	PB169039BSD	BN037556.D	07/30/2025

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alliance
Lab Code: ACE
Lab File ID: BN037497.D
Instrument ID: BNA_N

Contract: TETR06
SDG NO.: Q2697
DFTPP Injection Date: 07/15/2025
DFTPP Injection Time: 10:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	100
70	Less than 2.0% of mass 69	0.2 (0.6) 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	6.7
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	83.6
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	17.4 (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
SSTDICC0.1	SSTDICC0.1	BN037499.D	07/15/2025	12:36
SSTDICC0.2	SSTDICC0.2	BN037500.D	07/15/2025	13:12
SSTDICCC0.4	SSTDICCC0.4	BN037501.D	07/15/2025	13:49
SSTDICC0.8	SSTDICC0.8	BN037502.D	07/15/2025	14:25
SSTDICC1.6	SSTDICC1.6	BN037503.D	07/15/2025	15:01
SSTDICC3.2	SSTDICC3.2	BN037504.D	07/15/2025	15:38
SSTDICC5.0	SSTDICC5.0	BN037505.D	07/15/2025	16:14

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alliance
Lab Code: ACE
Lab File ID: BN037547.D
Instrument ID: BNA_N

Contract: TETR06
SDG NO.: Q2697
DFTPP Injection Date: 07/30/2025
DFTPP Injection Time: 08:59

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	100
70	Less than 2.0% of mass 69	0.2 (0.6) 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	6.9
365	Greater than 1% of mass 198	4.1
441	Present, but less than mass 443	83.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	17.3 (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
SSTDCCC0.4	SSTDCCC0.4	BN037548.D	07/30/2025	09:38
PB169039BL	PB169039BL	BN037549.D	07/30/2025	10:14
RW7-SP100-20250724	Q2697-01	BN037552.D	07/30/2025	12:03
RW7-SP201-20250724	Q2697-02	BN037553.D	07/30/2025	12:39
RW7-SP303-20250724	Q2697-03	BN037554.D	07/30/2025	13:16
PB169039BS	PB169039BS	BN037555.D	07/30/2025	13:52
PB169039BSD	PB169039BSD	BN037556.D	07/30/2025	14:28
SSTDCCC0.4EC	SSTDCCC0.4	BN037557.D	07/30/2025	15:16

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance

Lab Code: ACE

SDG NO.: Q2697

Client ID : SSTDCCC0.4

Date Analyzed: 07/30/2025

Lab File ID: BN037548.D

Time Analyzed: 09:38

Instrument ID: BNA_N

GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	2372	7.717	6287	10.50	3213	14.35
UPPER LIMIT	4744	8.217	12574	10.998	6426	14.845
LOWER LIMIT	1186	7.217	3143.5	9.998	1606.5	13.845
EPA SAMPLE NO.						
01 PB169039BL	2234	7.72	5448	10.50	2592	14.36
02 RW7-SP100-20250724	2145	7.72	5437	10.50	2763	14.36
03 PB169039BS	1872	7.72	4499	10.50	2146	14.35
04 PB169039BSD	1856	7.72	4469	10.50	2108	14.36
05 RW7-SP201-20250724	2519	7.72	6118	10.50	2961	14.36
06 RW7-SP303-20250724	1819	7.72	4480	10.50	2281	14.36

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance

Lab Code: ACE

SDG NO.: Q2697

Client ID: SSTDCCC0.4

Date Analyzed: 07/30/2025

Lab File ID: BN037548.D

Time Analyzed: 09:38

Instrument ID: BNA_N

GC Column: ZB-GR ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	5852	17.087	4832	21.277	4297	23.508
UPPER LIMIT	11704	17.587	9664	21.777	8594	24.008
LOWER LIMIT	2926	16.587	2416	20.777	2148.5	23.008
EPA SAMPLE NO.						
01 PB169039BL	4582	17.09	3451	21.28	3078	23.51
02 RW7-SP100-20250724	5503	17.09	4223	21.28	3679	23.51
03 PB169039BS	3846	17.09	2873	21.28	2422	23.52
04 PB169039BSD	3782	17.09	2830	21.28	2422	23.52
05 RW7-SP201-20250724	5987	17.09	5386	21.28	5025	23.51
06 RW7-SP303-20250724	4415	17.09	3551	21.28	3007	23.51

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	
Client Sample ID:	PB169039BL		SDG No.:	Q2697
Lab Sample ID:	PB169039BL		Matrix:	Water
Analytical Method:	SW8270ESIM		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN037549.D	1	07/29/25 08:49	07/30/25 10:14	PB169039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.33		30 - 150		83%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.34		30 - 150		86%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		89%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		96%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.40		58 - 132		100%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2230	7.724				
1146-65-2	Naphthalene-d8	5450	10.498				
15067-26-2	Acenaphthene-d10	2590	14.356				
1517-22-2	Phenanthrene-d10	4580	17.087				
1719-03-5	Chrysene-d12	3450	21.277				
1520-96-3	Perylene-d12	3080	23.513				

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	
Client Sample ID:	PB169039BS		SDG No.:	Q2697
Lab Sample ID:	PB169039BS		Matrix:	Water
Analytical Method:	SW8270ESIM		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN037555.D	1	07/29/25 08:49	07/30/25 13:52	PB169039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.31		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.34		30 - 150		85%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.31		30 - 150		77%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		89%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		53 - 106		100%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.37		58 - 132		93%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1870	7.724				
1146-65-2	Naphthalene-d8	4500	10.498				
15067-26-2	Acenaphthene-d10	2150	14.345				
1517-22-2	Phenanthrene-d10	3850	17.087				
1719-03-5	Chrysene-d12	2870	21.277				
1520-96-3	Perylene-d12	2420	23.516				

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	
Client Sample ID:	PB169039BSD		SDG No.:	Q2697
Lab Sample ID:	PB169039BSD		Matrix:	Water
Analytical Method:	SW8270ESIM		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN037556.D	1	07/29/25 08:49	07/30/25 14:28	PB169039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.30		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.33		30 - 150		83%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.31		30 - 150		77%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		86%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.41		53 - 106		102%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.37		58 - 132		93%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1860	7.724				
1146-65-2	Naphthalene-d8	4470	10.498				
15067-26-2	Acenaphthene-d10	2110	14.355				
1517-22-2	Phenanthrene-d10	3780	17.086				
1719-03-5	Chrysene-d12	2830	21.277				
1520-96-3	Perylene-d12	2420	23.516				

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

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
 Method File : 8270-SIM-BN071525.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Jul 16 02:38:11 2025
 Response Via : Initial Calibration

Calibration Files

0.1 =BN037499.D 0.2 =BN037500.D 0.4 =BN037501.D 0.8 =BN037502.D 1.6 =BN037503.D 3.2 =BN037504.D 5 =BN037505.D

	Compound	0.1	0.2	0.4	0.8	1.6	3.2	5	Avg	%RSD

1) I	1,4-Dichlorobenzen...	-----ISTD-----								
2)	1,4-Dioxane	0.409	0.395	0.371	0.398	0.380	0.354	0.385	5.29	
3)	n-Nitrosodimet...	0.466	0.464	0.465	0.508	0.499	0.501	0.484	4.31	
4) S	2-Fluorophenol	1.038	1.011	0.985	0.908	0.982	0.971	1.030	0.989	4.42
5) S	Phenol-d6	1.448	1.238	1.190	1.105	1.201	1.229	1.275	1.241	8.52
6)	bis(2-Chloroet...	1.082	1.052	1.024	0.983	1.037	1.033	1.016	1.033	2.99
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.311	0.288	0.283	0.270	0.300	0.305	0.336	0.299	7.20
9)	Naphthalene	1.069	1.054	1.046	1.009	1.091	1.073	1.126	1.067	3.45
10)	Hexachlorobuta...	0.229	0.237	0.235	0.223	0.245	0.236	0.246	0.236	3.44
11) SURR2	Methylnaphth...	0.556	0.534	0.541	0.522	0.562	0.590	0.711	0.574	11.24
12)	2-Methylnaphth...	0.704	0.655	0.678	0.665	0.716	0.736	0.756	0.701	5.34
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.197	0.173	0.173	0.176	0.194	0.215	0.248	0.197	13.98
15) S	2-Fluorobiphenyl	1.818	1.794	2.045	2.024	2.277	2.205	2.397	2.080	10.91
16)	Acenaphthylene	1.723	1.708	1.719	1.684	1.830	1.895	1.981	1.792	6.30
17)	Acenaphthene	1.239	1.160	1.172	1.150	1.238	1.251	1.320	1.218	5.03
18)	Fluorene	1.592	1.488	1.485	1.486	1.605	1.606	1.717	1.569	5.56
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.044	0.041	0.047	0.057	0.070	0.080	0.057	27.89	
21)	4-Bromophenyl-...	0.248	0.247	0.243	0.242	0.268	0.272	0.274	0.256	5.58
22)	Hexachlorobenzene	0.315	0.330	0.328	0.321	0.345	0.340	0.338	0.331	3.26
23)	Atrazine	0.173	0.161	0.159	0.158	0.181	0.200	0.220	0.179	13.24
24)	Pentachlorophenol	0.131	0.125	0.126	0.151	0.170	0.189	0.149	17.64	
25)	Phenanthrene	1.167	1.163	1.160	1.129	1.248	1.248	1.273	1.198	4.70
26)	Anthracene	1.025	1.025	1.013	1.023	1.160	1.176	1.232	1.093	8.45
27) SURR	Fluoranthene-d10	1.023	0.998	0.962	0.928	1.041	1.078	1.385	1.060	14.34
28)	Fluoranthene	1.358	1.310	1.290	1.270	1.429	1.431	1.585	1.382	7.96
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.754	1.559	1.607	1.549	1.607	1.665	1.539	1.612	4.74
31) S	Terphenyl-d14	0.926	0.815	0.844	0.811	0.854	0.902	0.865	0.859	4.94
32)	Benzo(a)anthra...	1.414	1.357	1.341	1.285	1.429	1.464	1.517	1.401	5.63
33)	Chrysene	1.452	1.461	1.434	1.358	1.488	1.490	1.528	1.459	3.70
34)	Bis(2-ethylhex...	0.603	0.564	0.538	0.603	0.693	0.779	0.630	14.26	
35) I	Perylene-d12	-----ISTD-----								

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\

Method File : 8270-SIM-BN071525.M

36)	Indeno(1,2,3-c...	1.493	1.528	1.514	1.559	1.771	1.805	1.991	1.666	11.48
37)	Benzo(b)fluora...	1.464	1.378	1.454	1.436	1.589	1.617	1.692	1.518	7.53
38)	Benzo(k)fluora...	1.516	1.420	1.486	1.470	1.661	1.689	1.724	1.567	7.75
39) C	Benzo(a)pyrene	1.189	1.152	1.192	1.176	1.320	1.369	1.469	1.267	9.51
40)	Dibenzo(a,h)an...	1.201	1.218	1.216	1.256	1.444	1.483	1.627	1.349	12.46
41)	Benzo(g,h,i)pe...	1.247	1.283	1.309	1.297	1.482	1.497	1.663	1.397	10.98

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alliance Contract: TETR06
 Lab Code: ACE SDG No.: Q2697
 Instrument ID: BNA_N Calibration Date/Time: 07/30/2025 09:38
 Lab File ID: BN037548.D Init. Calib. Date(s): 07/15/2025 07/15/2025
 EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 12:36 16:14
 GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.574	0.520		-9.4	20.0
Fluoranthene-d10	1.060	0.900		-15.1	20.0
2-Fluorophenol	0.989	0.916		-7.4	20.0
Phenol-d6	1.241	1.129		-9.0	20.0
Nitrobenzene-d5	0.299	0.272		-9.0	20.0
2-Fluorobiphenyl	2.080	2.204		6.0	20.0
2,4,6-Tribromophenol	0.197	0.139		-29.4	20.0
Terphenyl-d14	0.859	0.751		-12.6	20.0
1,4-Dioxane	0.385	0.392		1.8	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alliance Contract: TETR06
 Lab Code: ACE SDG No.: Q2697
 Instrument ID: BNA_N Calibration Date/Time: 07/30/2025 15:16
 Lab File ID: BN037557.D Init. Calib. Date(s): 07/15/2025 07/15/2025
 EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:36 16:14
 GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.574	0.502		-12.5	50.0
Fluoranthene-d10	1.060	0.915		-13.7	50.0
2-Fluorophenol	0.989	0.855		-13.5	50.0
Phenol-d6	1.241	1.046		-15.7	50.0
Nitrobenzene-d5	0.299	0.277		-7.4	50.0
2-Fluorobiphenyl	2.080	2.179		4.8	50.0
2,4,6-Tribromophenol	0.197	0.143		-27.4	50.0
Terphenyl-d14	0.859	0.818		-4.8	50.0
1,4-Dioxane	0.385	0.375		-2.6	50.0

All other compounds must meet a minimum RRF of 0.010.

LAB CHRONICLE

OrderID:	Q2697	OrderDate:	7/25/2025 10:41:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	NWIRP Bethpage 112G08005-WE13
Contact:	Ernie Wu	Location:	D51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2697-01	RW7-SP100-2025072 4	WATER	Anions Group4	300.0	07/24/25 12:15		07/25/25 14:43	07/25/25



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/25 12:15
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/25/25
Client Sample ID:	RW7-SP100-20250724	SDG No.:	Q2697
Lab Sample ID:	Q2697-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Nitrite	0.30	U	1	0.074	0.30	0.60	mg/L		07/25/25 14:43	300.0
Nitrate	3.00		1	0.095	0.25	0.50	mg/L		07/25/25 14:43	300.0
Nitrate+Nitrite	3.00		1	0.17	0.55	1.10	mg/L		07/25/25 14:43	300.0

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



QC RESULT SUMMARY

Initial and Continuing Calibration Verification

Client: Tetra Tech NUS, Inc.

SDG No.: Q2697

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB136635

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Bromide	mg/L	9.5	10	95	90-110	07/21/2025
Chloride	mg/L	2.8	3	93	90-110	07/21/2025
Fluoride	mg/L	1.9	2	95	90-110	07/21/2025
Nitrite	mg/L	2.8	3	93	90-110	07/21/2025
Nitrate	mg/L	2.3	2.5	92	90-110	07/21/2025
Sulfate	mg/L	14.2	15	95	90-110	07/21/2025
Orthophosphate as P	mg/L	4.8	5	96	90-110	07/21/2025
Sample ID: CCV1						
Bromide	mg/L	10.1	10	101	90-110	07/25/2025
Chloride	mg/L	3.1	3	103	90-110	07/25/2025
Fluoride	mg/L	2	2	100	90-110	07/25/2025
Nitrite	mg/L	3	3	100	90-110	07/25/2025
Nitrate	mg/L	2.5	2.5	100	90-110	07/25/2025
Sulfate	mg/L	14.9	15	99	90-110	07/25/2025
Orthophosphate as P	mg/L	5	5	100	90-110	07/25/2025
Sample ID: CCV2						
Bromide	mg/L	10.2	10	102	90-110	07/25/2025
Chloride	mg/L	3.1	3	103	90-110	07/25/2025
Fluoride	mg/L	2	2	100	90-110	07/25/2025
Nitrite	mg/L	3	3	100	90-110	07/25/2025
Nitrate	mg/L	2.5	2.5	100	90-110	07/25/2025
Sulfate	mg/L	15.1	15	101	90-110	07/25/2025
Orthophosphate as P	mg/L	5.1	5	102	90-110	07/25/2025
Sample ID: CCV3						
Bromide	mg/L	10.2	10	102	90-110	07/25/2025
Chloride	mg/L	3.1	3	103	90-110	07/25/2025
Fluoride	mg/L	2	2	100	90-110	07/25/2025
Nitrite	mg/L	3	3	100	90-110	07/25/2025
Nitrate	mg/L	2.5	2.5	100	90-110	07/25/2025
Sulfate	mg/L	15	15	100	90-110	07/25/2025
Orthophosphate as P	mg/L	5.1	5	102	90-110	07/25/2025

Initial and Continuing Calibration Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q2697

Project: NWIRP Bethpage 112G08005-WE13

RunNo.: LB136635

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	07/21/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	07/21/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	07/21/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	07/21/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	07/21/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	07/21/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	07/21/2025
Sample ID: CCB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	07/25/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	07/25/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	07/25/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	07/25/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	07/25/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	07/25/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	07/25/2025
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	07/25/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	07/25/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	07/25/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	07/25/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	07/25/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	07/25/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	07/25/2025
Sample ID: CCB3							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	07/25/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	07/25/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	07/25/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	07/25/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	07/25/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	07/25/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	07/25/2025

Preparation Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q2697

Project: NWIRP Bethpage 112G08005-WE13

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB136635BLW							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	07/25/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	07/25/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	07/25/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	07/25/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	07/25/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	07/25/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	07/25/2025

Matrix Spike Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q2697
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q2695-01
Client ID:	RW5-SP100-20250724MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/L	80-120	10.1		0.37	U	10	1	101		07/25/2025
Chloride	mg/L	80-120	13.4	OR	10.8	OR	3	1	87		07/25/2025
Fluoride	mg/L	80-120	2.00		0.11	U	2	1	100		07/25/2025
Nitrite	mg/L	80-120	3.00		0.074	U	3	1	100		07/25/2025
Nitrate	mg/L	80-120	6.30	OR	3.90		2.5	1	96		07/25/2025
Sulfate	mg/L	80-120	16.9		2.60	J	15	1	95		07/25/2025
Orthophosphate as P	mg/L	80-120	5.10		0.34	U	5	1	102		07/25/2025

Matrix Spike Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q2697
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q2695-01
Client ID:	RW5-SP100-20250724MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/L	80-120	10.0		0.37	U	10	1	100		07/25/2025
Chloride	mg/L	80-120	13.4	OR	10.8	OR	3	1	87		07/25/2025
Fluoride	mg/L	80-120	2.00		0.11	U	2	1	100		07/25/2025
Nitrite	mg/L	80-120	2.90		0.074	U	3	1	97		07/25/2025
Nitrate	mg/L	80-120	6.30	OR	3.90		2.5	1	96		07/25/2025
Sulfate	mg/L	80-120	16.7		2.60	J	15	1	94		07/25/2025
Orthophosphate as P	mg/L	80-120	5.00		0.34	U	5	1	100		07/25/2025

Duplicate Sample Summary

Client: Tetra Tech NUS, Inc.	SDG No.: Q2697
Project: NWIRP Bethpage 112G08005-WE13	Sample ID: Q2695-01
Client ID: RW5-SP100-20250724MSD	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Fluoride	mg/L	+/-20	2.00		2.00		1	0		07/25/2025
Chloride	mg/L	+/-20	13.4	OR	13.4	OR	1	0		07/25/2025
Nitrate	mg/L	+/-20	6.30	OR	6.30	OR	1	0		07/25/2025
Bromide	mg/L	+/-20	10.1		10.0		1	1		07/25/2025
Sulfate	mg/L	+/-20	16.9		16.7		1	1		07/25/2025
Orthophosphate as P	mg/L	+/-20	5.10		5.00		1	2		07/25/2025
Nitrite	mg/L	+/-20	3.00		2.90		1	3		07/25/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q2697
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB136635

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB136635BSW							
Bromide	mg/L	10	10.2		102	1	90-110	07/25/2025
Chloride	mg/L	3	3.10		103	1	90-110	07/25/2025
Fluoride	mg/L	2	2.00		100	1	90-110	07/25/2025
Nitrite	mg/L	3	3.00		100	1	90-110	07/25/2025
Nitrate	mg/L	2.5	2.50		100	1	90-110	07/25/2025
Sulfate	mg/L	15	15.0		100	1	90-110	07/25/2025
Orthophosphate as P	mg/L	5	5.10		102	1	90-110	07/25/2025



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax: (908) 78-8922

www.chemtech.net

Chemtech Project Number:

Q2697

COC Number:

BILLING INFORMATION

CLIENT INFORMATION

PROJECT INFORMATION

COMPANY: Tetra Tech

ADDRESS: 4433 Corporation Ln, Suite 300

CITY: Virginia Beach

STATE: VA ZIP: 23462

ATTENTION: Ernie Wu

PHONE: 757-466-4901

FAX: 757-461-4148

PROJECT NAME: NWIRP Bethpage

PROJECT #: 112G08005-WE13

PROJECT MANAGER: Ernie Wu

E-MAIL: ernie.wu@tetratech.com

PHONE: 757-466-4901

FAX: 757-461-4148

BILL TO:

PO#

ADDRESS:

CITY:

STATE: ZIP:

ATTENTION:

PHONE:

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

ANALYSIS

FAX: 10 DAYS*

HARD COPY: 10 DAYS*

EDD 10 DAYS*

* TO BE APPROVED BY CHEMTECH

STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

- ☐ RESULTS ONLY ☐ USEPA CLP ☐ New York State ASP "B"
- ☐ RESULTS + QC ☐ New Jersey REDUCED ☐ New York State ASP "A"
- ☐ New Jersey CLP ☐ Other
- ☐ EDD Format

1	2	3	4	5	6	7	8	9
1,4-Dioxane SW846 8270 SIM								
Nitrate, Nitrite								

PRESERVATIVES

COMMENTS

CHEMTECH SAMPLE ID

PROJECT SAMPLE IDENTIFICATION

SAMPLE MATRIX

TYPE	SAMPLE COLLECTION		# of Bottles
	DATE	TIME	
COMP			
GRAB			

<- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	DATE/TIME	RECEIVED BY	Comments:
1. <i>[Signature]</i>	7/24/10	1. <i>[Signature]</i>	7/24/10	1. <i>[Signature]</i>	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <i>2.3°C</i> ☐ Ice in Cooler? <i>yes</i>
2. <i>[Signature]</i>	7/25/10	2. <i>[Signature]</i>	7/25/10	2. <i>[Signature]</i>	MeOH extraction requires an additional 4oz. Jar for percent solid
3. <i>[Signature]</i>	7/25/10	3. <i>[Signature]</i>	7/25/10	3. <i>[Signature]</i>	

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight ☐ Picked Up ☐ Overnight

Shipment Complete ☐ YES ☐ NO

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