

ANALYTICAL RESULTS SUMMARY

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 : Q2806

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q2806

Project ID : NWIRP Bethpage 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

Q2806-01
Q2806-02
Q2806-03

Client Sample Number

RW7-SP100-20250807
RW7-SP201-20250807
RW7-SP303-20250807

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 : _____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 2:01 pm, Aug 19, 2025

Date: 8/18/2025

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 # Q2806

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

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 for {PB169222BS} with File ID: BN037596.D met requirements for all compounds except for 1,4-Dioxane[68%]. Recovery failed marginally low, Therefore no further corrective action was taken.

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 met the requirements.

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_____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 2:02 pm, Aug 19, 2025

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 #: Q2806

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: 08/18/2025

LAB CHRONICLE

OrderID:	Q2806	OrderDate:	8/8/2025 9:55:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	NWIRP Bethpage 112G08005-WE13
Contact:	Ernie Wu	Location:	J11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2806-01	RW7-SP100-20250807	Water			08/07/25			08/08/25
			SVOC-SIMGroup1	8270-Modified		08/12/25	08/13/25	
Q2806-02	RW7-SP201-20250807	Water			08/07/25			08/08/25
			SVOC-SIMGroup1	8270-Modified		08/12/25	08/13/25	
Q2806-03	RW7-SP303-20250807	Water			08/07/25			08/08/25
			SVOC-SIMGroup1	8270-Modified		08/12/25	08/13/25	



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

Hit Summary Sheet SW-846

SDG No.: Q2806
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	RW7-SP100-20250807							
Q2806-01	RW7-SP100-20250807	WATER	1,4-Dioxane	3.400	Q	0.07	0.2	0.2 ug/L
			Total Svoc :					
			Total Concentration:					



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/07/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	08/08/25
Client Sample ID:	RW7-SP100-20250807	SDG No.:	Q2806
Lab Sample ID:	Q2806-01	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	980 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
BN037592.D	1	08/12/25 08:52	08/13/25 12:55	PB169222

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	3.40	Q	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.30		30 - 150		75%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.37		30 - 150		92%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		84%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		53 - 106		82%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		120%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1920	7.717				
1146-65-2	Naphthalene-d8	4450	10.498				
15067-26-2	Acenaphthene-d10	2150	14.345				
1517-22-2	Phenanthrene-d10	4410	17.087				
1719-03-5	Chrysene-d12	3980	21.277				
1520-96-3	Perylene-d12	3320	23.508				

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:	08/07/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	08/08/25
Client Sample ID:	RW7-SP201-20250807	SDG No.:	Q2806
Lab Sample ID:	Q2806-02	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
BN037593.D	1	08/12/25 08:52	08/13/25 13:31	PB169222

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	UQ	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.31		30 - 150		78%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.38		30 - 150		94%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		55 - 111		88%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		87%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.43		58 - 132		106%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1940	7.717				
1146-65-2	Naphthalene-d8	4450	10.498				
15067-26-2	Acenaphthene-d10	2120	14.345				
1517-22-2	Phenanthrene-d10	4470	17.087				
1719-03-5	Chrysene-d12	4170	21.277				
1520-96-3	Perylene-d12	3790	23.511				

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:	08/07/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	08/08/25
Client Sample ID:	RW7-SP303-20250807	SDG No.:	Q2806
Lab Sample ID:	Q2806-03	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	890 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
BN037594.D	1	08/12/25 08:52	08/13/25 14:08	PB169222

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.22	UQ	0.070	0.22	0.22	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.31		30 - 150		79%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.37		30 - 150		93%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		55 - 111		88%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		88%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.44		58 - 132		111%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1870	7.717				
1146-65-2	Naphthalene-d8	4330	10.498				
15067-26-2	Acenaphthene-d10	2080	14.345				
1517-22-2	Phenanthrene-d10	4150	17.086				
1719-03-5	Chrysene-d12	3610	21.277				
1520-96-3	Perylene-d12	3060	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



QC SUMMARY

Surrogate Summary

SW-846

SDG No.: **Q2806**

Client: **Tetra Tech NUS, Inc.**

Analytical Method: **8270-Modified**

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB169222BL	PB169222BL	2-Methylnaphthalene-d10	0.4	0.32	80		30	150
		Fluoranthene-d10	0.4	0.32	81		30	150
		Nitrobenzene-d5	0.4	0.34	86		55	111
		2-Fluorobiphenyl	0.4	0.35	86		53	106
		Terphenyl-d14	0.4	0.38	94		58	132
PB169222BS	PB169222BS	2-Methylnaphthalene-d10	0.4	0.34	84		30	150
		Fluoranthene-d10	0.4	0.30	75		30	150
		Nitrobenzene-d5	0.4	0.34	84		55	111
		2-Fluorobiphenyl	0.4	0.36	89		53	106
		Terphenyl-d14	0.4	0.37	93		58	132
PB169222BSD	PB169222BSD	2-Methylnaphthalene-d10	0.4	0.35	88		30	150
		Fluoranthene-d10	0.4	0.32	80		30	150
		Nitrobenzene-d5	0.4	0.36	91		55	111
		2-Fluorobiphenyl	0.4	0.39	97		53	106
		Terphenyl-d14	0.4	0.41	101		58	132
Q2806-01	RW7-SP100-20250807	2-Methylnaphthalene-d10	0.4	0.30	75		30	150
		Fluoranthene-d10	0.4	0.37	92		30	150
		Nitrobenzene-d5	0.4	0.34	84		55	111
		2-Fluorobiphenyl	0.4	0.33	82		53	106
		Terphenyl-d14	0.4	0.48	120		58	132
Q2806-02	RW7-SP201-20250807	2-Methylnaphthalene-d10	0.4	0.31	78		30	150
		Fluoranthene-d10	0.4	0.38	94		30	150
		Nitrobenzene-d5	0.4	0.35	88		55	111
		2-Fluorobiphenyl	0.4	0.35	87		53	106
		Terphenyl-d14	0.4	0.43	106		58	132
Q2806-03	RW7-SP303-20250807	2-Methylnaphthalene-d10	0.4	0.31	79		30	150
		Fluoranthene-d10	0.4	0.37	93		30	150
		Nitrobenzene-d5	0.4	0.35	88		55	111
		2-Fluorobiphenyl	0.4	0.35	88		53	106
		Terphenyl-d14	0.4	0.44	111		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2806

Analytical Method: 8270-Modified

Client: Tetra Tech NUS, Inc.

DataFile: BN037596.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits		RPD
								Qual	Low	High		
PB169222BS	1,4-Dioxane	0.4	0.27	ug/L	68		*		70	130		

A
B
C
D
E
F
G

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q2806</u>	Analytical Method:	<u>8270-Modified</u>
Client:	<u>Tetra Tech NUS, Inc.</u>	DataFile:	<u>BN037597.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB169222BSD	1,4-Dioxane	0.4	0.29	ug/L	73	7			70	130	20

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Client ID

PB169222BL

Lab Name: Alliance

Contract: TETR06

Lab Code: ACE

SDG NO.: Q2806

Lab File ID: BN037589.D

Lab Sample ID: PB169222BL

Instrument ID: BNA_N

Date Extracted: 08/12/2025

Matrix: (soil/water) Water

Date Analyzed: 08/13/2025

Level: (low/med) LOW

Time Analyzed: 11:05

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB169222BS	PB169222BS	BN037596.D	08/13/2025
RW7-SP100-20250807	Q2806-01	BN037592.D	08/13/2025
RW7-SP201-20250807	Q2806-02	BN037593.D	08/13/2025
RW7-SP303-20250807	Q2806-03	BN037594.D	08/13/2025
PB169222BSD	PB169222BSD	BN037597.D	08/13/2025

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alliance
Lab Code: ACE
Lab File ID: BN037576.D
Instrument ID: BNA_N

Contract: TETR06
SDG NO.: Q2806
DFTPP Injection Date: 08/12/2025
DFTPP Injection Time: 15:05

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	7.1
365	Greater than 1% of mass 198	3.9
441	Present, but less than mass 443	87.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.2 (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
SSTDICC0.1	SSTDICC0.1	BN037578.D	08/12/2025	16:26
SSTDICC0.2	SSTDICC0.2	BN037579.D	08/12/2025	17:03
SSTDICCC0.4	SSTDICCC0.4	BN037580.D	08/12/2025	17:39
SSTDICC0.8	SSTDICC0.8	BN037581.D	08/12/2025	18:16
SSTDICC1.6	SSTDICC1.6	BN037582.D	08/12/2025	18:52
SSTDICC3.2	SSTDICC3.2	BN037583.D	08/12/2025	19:29
SSTDICC5.0	SSTDICC5.0	BN037584.D	08/12/2025	20:05

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Alliance
Lab Code: ACE
Lab File ID: BN037587.D
Instrument ID: BNA_N

Contract: TETR06
SDG NO.: Q2806
DFTPP Injection Date: 08/13/2025
DFTPP Injection Time: 09:48

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 (0.5) 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
365	Greater than 1% of mass 198	3.9
441	Present, but less than mass 443	74.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19 (21) 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	BN037588.D	08/13/2025	10:28
PB169222BL	PB169222BL	BN037589.D	08/13/2025	11:05
RW7-SP100-20250807	Q2806-01	BN037592.D	08/13/2025	12:55
RW7-SP201-20250807	Q2806-02	BN037593.D	08/13/2025	13:31
RW7-SP303-20250807	Q2806-03	BN037594.D	08/13/2025	14:08
PB169222BS	PB169222BS	BN037596.D	08/13/2025	15:22
PB169222BSD	PB169222BSD	BN037597.D	08/13/2025	15:58
SSTDCCC0.4EC	SSTDCCC0.4	BN037598.D	08/13/2025	16:35

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance

Lab Code: ACE

SDG NO.: Q2806

Client ID : SSTDCCC0.4

Date Analyzed: 08/13/2025

Lab File ID: BN037588.D

Time Analyzed: 10:28

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	2728	7.717	6843	10.50	3392	14.35
UPPER LIMIT	5456	8.217	13686	10.998	6784	14.845
LOWER LIMIT	1364	7.217	3421.5	9.998	1696	13.845
EPA SAMPLE NO.						
01 PB169222BL	2235	7.72	5344	10.50	2468	14.35
02 RW7-SP100-20250807	1915	7.72	4446	10.50	2152	14.35
03 PB169222BS	3068	7.72	7591	10.50	3534	14.35
04 PB169222BSD	2742	7.72	6598	10.50	3080	14.35
05 RW7-SP201-20250807	1937	7.72	4454	10.50	2122	14.35
06 RW7-SP303-20250807	1865	7.72	4331	10.50	2080	14.35

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.: Q2806

Client ID: SSTDCCC0.4

Date Analyzed: 08/13/2025

Lab File ID: BN037588.D

Time Analyzed: 10:28

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	6530	17.086	6467	21.268	5771	23.505
UPPER LIMIT	13060	17.586	12934	21.768	11542	24.005
LOWER LIMIT	3265	16.586	3233.5	20.768	2885.5	23.005
EPA SAMPLE NO.						
01 PB169222BL	4726	17.10	3815	21.27	3770	23.51
02 RW7-SP100-20250807	4414	17.09	3975	21.28	3324	23.51
03 PB169222BS	6432	17.09	4873	21.28	4192	23.51
04 PB169222BSD	5659	17.09	4216	21.28	3616	23.51
05 RW7-SP201-20250807	4469	17.09	4166	21.28	3789	23.51
06 RW7-SP303-20250807	4148	17.09	3606	21.28	3055	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:	PB169222BL		SDG No.:	Q2806	
Lab Sample ID:	PB169222BL		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
BN037589.D	1	08/12/25 08:52	08/13/25 11:05	PB169222

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	0.32		30 - 150		80%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 - 150		81%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		86%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		86%	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	2240	7.717				
1146-65-2	Naphthalene-d8	5340	10.498				
15067-26-2	Acenaphthene-d10	2470	14.345				
1517-22-2	Phenanthrene-d10	4730	17.099				
1719-03-5	Chrysene-d12	3820	21.268				
1520-96-3	Perylene-d12	3770	23.508				

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:	PB169222BS		SDG No.:	Q2806	
Lab Sample ID:	PB169222BS		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
BN037596.D	1	08/12/25 08:52	08/13/25 15:22	PB169222

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.27		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.34		30 - 150		84%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.30		30 - 150		75%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		84%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		53 - 106		89%	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	3070	7.717				
1146-65-2	Naphthalene-d8	7590	10.498				
15067-26-2	Acenaphthene-d10	3530	14.345				
1517-22-2	Phenanthrene-d10	6430	17.086				
1719-03-5	Chrysene-d12	4870	21.277				
1520-96-3	Perylene-d12	4190	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:		
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:		
Client Sample ID:	PB169222BSD		SDG No.:	Q2806	
Lab Sample ID:	PB169222BSD		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
BN037597.D	1	08/12/25 08:52	08/13/25 15:58	PB169222

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.29		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		88%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 - 150		80%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		91%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		97%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.41		58 - 132		101%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2740	7.717				
1146-65-2	Naphthalene-d8	6600	10.498				
15067-26-2	Acenaphthene-d10	3080	14.345				
1517-22-2	Phenanthrene-d10	5660	17.086				
1719-03-5	Chrysene-d12	4220	21.277				
1520-96-3	Perylene-d12	3620	23.505				

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-BN081225.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Aug 13 05:00:58 2025
 Response Via : Initial Calibration

Calibration Files

0.1 =BN037578.D 0.2 =BN037579.D 0.4 =BN037580.D 0.8 =BN037581.D 1.6 =BN037582.D 3.2 =BN037583.D 5 =BN037584.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	0.413	0.395	0.368	0.397	0.375	0.348	0.383		6.08
3)	n-Nitrosodimet...	0.471	0.488	0.471	0.493	0.503	0.508	0.489		3.19
4) S	2-Fluorophenol	0.922	0.945	0.888	0.823	0.886	0.906	0.977	0.907	5.41
5) S	Phenol-d6	1.045	1.051	1.044	0.983	1.198	1.117	1.201	1.091	7.66
6)	bis(2-Chloroet...	0.935	0.987	0.976	0.936	1.020	1.008	1.022	0.983	3.75
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.270	0.257	0.262	0.264	0.292	0.301	0.326	0.282	9.03
9)	Naphthalene	1.044	1.050	1.037	1.012	1.089	1.096	1.127	1.065	3.78
10)	Hexachlorobuta...	0.252	0.258	0.262	0.253	0.267	0.264	0.265	0.260	2.22
11) SURR2	Methylnaphth...	0.488	0.492	0.508	0.493	0.543	0.578	0.705	0.544	14.39
12)	2-Methylnaphth...	0.589	0.631	0.635	0.629	0.701	0.731	0.760	0.668	9.39
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.139	0.149	0.156	0.160	0.185	0.203	0.234	0.175	19.39
15) S	2-Fluorobiphenyl	2.226	2.243	2.300	2.251	2.341	2.391	2.440	2.313	3.50
16)	Acenaphthylene	1.740	1.760	1.710	1.653	1.850	1.858	1.980	1.793	6.15
17)	Acenaphthene	1.144	1.150	1.172	1.154	1.283	1.286	1.348	1.220	6.86
18)	Fluorene	1.466	1.510	1.524	1.521	1.686	1.693	1.770	1.596	7.38
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.042	0.046	0.047	0.061	0.070		0.053		22.37
21)	4-Bromophenyl-...	0.226	0.236	0.234	0.237	0.265	0.271	0.292	0.251	9.77
22)	Hexachlorobenzene	0.360	0.360	0.356	0.332	0.364	0.354	0.370	0.356	3.37
23)	Atrazine	0.127	0.126	0.130	0.134	0.160	0.176		0.142	14.76
24)	Pentachlorophenol		0.108	0.113	0.113	0.139	0.152		0.125	15.36
25)	Phenanthrene	1.146	1.162	1.170	1.138	1.281	1.269	1.347	1.216	6.72
26)	Anthracene	0.950	0.985	0.995	0.988	1.145	1.186	1.286	1.077	11.93
27) SURR	Fluoranthene-d10	0.932	0.966	0.954	0.935	1.050	1.110	1.419	1.052	16.61
28)	Fluoranthene	1.241	1.264	1.299	1.291	1.503	1.533	1.648	1.397	11.53
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.539	1.486	1.464	1.403	1.502	1.520	1.552	1.495	3.38
31) S	Terphenyl-d14	0.814	0.801	0.796	0.763	0.833	0.853	0.901	0.823	5.45
32)	Benzo(a)anthra...	1.266	1.275	1.263	1.253	1.351	1.458	1.487	1.336	7.40
33)	Chrysene	1.547	1.515	1.433	1.379	1.511	1.489	1.551	1.489	4.21
34)	Bis(2-ethylhex...		0.518	0.522	0.483	0.522	0.593	0.671	0.551	12.47
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN081225.M

36)	Indeno(1,2,3-c...	1.446	1.462	1.612	1.568	1.816	1.883	2.011	1.686	13.01
37)	Benzo(b)fluora...	1.351	1.375	1.338	1.432	1.615	1.674	1.825	1.516	12.52
38)	Benzo(k)fluora...	1.597	1.580	1.651	1.628	1.821	1.797	1.898	1.710	7.36
39) C	Benzo(a)pyrene	1.146	1.136	1.149	1.157	1.322	1.382	1.508	1.257	11.77
40)	Dibenzo(a,h)an...	1.023	1.118	1.222	1.215	1.439	1.516	1.621	1.308	16.85
41)	Benzo(g,h,i)pe...	1.207	1.274	1.262	1.261	1.467	1.532	1.643	1.378	12.17

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alliance Contract: TETR06
 Lab Code: ACE SDG No.: Q2806
 Instrument ID: BNA_N Calibration Date/Time: 08/13/2025 10:28
 Lab File ID: BN037588.D Init. Calib. Date(s): 08/12/2025 08/12/2025
 EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 16:26 20:05
 GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.508		-6.6	20.0
Fluoranthene-d10	1.052	0.929		-11.7	20.0
2-Fluorophenol	0.907	0.923		1.8	20.0
Phenol-d6	1.091	1.135		4.0	20.0
Nitrobenzene-d5	0.282	0.265		-6.0	20.0
2-Fluorobiphenyl	2.313	2.297		-0.7	20.0
2,4,6-Tribromophenol	0.175	0.166		-5.1	20.0
Terphenyl-d14	0.823	0.727		-11.7	20.0
1,4-Dioxane	0.383	0.412		7.6	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.: Q2806
 Instrument ID: BNA_N Calibration Date/Time: 08/13/2025 16:35
 Lab File ID: BN037598.D Init. Calib. Date(s): 08/12/2025 08/12/2025
 EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 16:26 20:05
 GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.504		-7.4	50.0
Fluoranthene-d10	1.052	0.931		-11.5	50.0
2-Fluorophenol	0.907	0.859		-5.3	50.0
Phenol-d6	1.091	1.022		-6.3	50.0
Nitrobenzene-d5	0.282	0.261		-7.4	50.0
2-Fluorobiphenyl	2.313	2.278		-1.5	50.0
2,4,6-Tribromophenol	0.175	0.157		-10.3	50.0
Terphenyl-d14	0.823	0.804		-2.3	50.0
1,4-Dioxane	0.383	0.389		1.6	50.0

All other compounds must meet a minimum RRF of 0.010.



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:

22806

COC Number:

CLIENT 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 INFORMATION

PROJECT NAME: NWIRP Bethpage
PROJECT #: 112G08005-WE13 LOCATION: RW7B
PROJECT MANAGER: Ernie Wu
E-MAIL: ernie.wu@tetratech.com
PHONE: 757-466-4901 FAX: 757-461-4148

BILLING INFORMATION

BILL TO: PO#
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

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

DATA TURNAROUND INFORMATION

FAX: 10 DAYS*
HARD COPY: 10 DAYS*
EDD: 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

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

PRESERVATIVES

COMMENTS

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

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles									
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9
1.	RW7-SP100-20250807	GW		x	8/7/25	12:15	1	x								
2.	RW7-SP201-20250807	GW		x	8/7/25	12:17	1	x								
3.	RW7-SP303-20250807	GW		x	8/7/25	12:29	1	x								
4.																
5.																
6.																
7.																
8.																
9.																
10.																

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. <i>[Signature]</i>	8/7/25/1520	1. <i>[Signature]</i>
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2. <i>[Signature]</i>	8/8/25 925	2. <i>[Signature]</i>
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. <i>[Signature]</i>		3. <i>[Signature]</i>

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 2.1°C
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:

☐ Ice in Cooler? yes

IR 600*1

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

Shipment Complete
☐ YES ☐ NO

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