

# ANALYTICAL RESULTS SUMMARY

GENERAL CHEMISTRY  
METALS  
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 : Q2696**

**ATTENTION : Ernie Wu**



**Laboratory Certification ID # 20012**



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## Cover Page

**Order ID :** Q2696

**Project ID :** NWIRP Bethpage 112G08005-WE13

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

**Lab Sample Number**

Q2696-01  
Q2696-02

**Client Sample Number**

RW8-SP100-20250724  
RW8-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.

**APPROVED**

Signature :

*By Nimisha Pandya, QA/QC Supervisor at 1:54 pm, Aug 05, 2025*

Date: 8/4/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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 :** Ernie Wu

**Order ID #** Q2696

**Test Name:** SVOC-SIMGroup1

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

2 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-SemiVolatile 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 except for RW8-SP100-20250724 [Terphenyl-d14 - 139%] and RW8-SP303-20250724 [Terphenyl-d14 - 147%], The Failure Surrogate is not Associated with DOD Parameter list, Therefore no Corrective Action was taken.

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, which is not our target compound, therefore no corrective action taken.

The Tuning criteria met requirements.

**E. Additional Comments:**



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

The Sample RW8-SP100-20250724 have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

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.

---

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**APPROVED**

*By Nimisha Pandya, QA/QC Supervisor at 1:56 pm, Aug 05, 2025*

Signature \_\_\_\_\_



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## CASE NARRATIVE

**Tetra Tech NUS, Inc.**

**Project Name:** NWIRP Bethpage 112G08005-WE13

**Project Manager :** Ernie Wu

**Order ID #** Q2696

**Test Name:** Metals Group4

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

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

**B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Anions Group4, Metals Group4, SVOC-SIMGroup1, TDS and TSS. This data package contains results for Metals Group4.

**C. Analytical Techniques:**

The analysis of Metals Group4 was based on method 6010D and digestion based on method 3010 (waters).

**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.

The Serial Dilution met criteria for all Compounds .

**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.

**APPROVED**

Signature \_\_\_\_\_

*By Nimisha Pandya, QA/QC Supervisor at 1:56 pm, Aug 05, 2025*



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## CASE NARRATIVE

**Tetra Tech NUS, Inc.**

**Project Name:** NWIRP Bethpage 112G08005-WE13

**Project Manager :** Ernie Wu

**Order ID #** Q2696

**Test Name:** Anions Group4,TDS,TSS

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

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

**B. Parameters:**

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

**C. Analytical Techniques:**

The analysis of Anions Group4 was based on method 300.0, The analysis of TDS was based on method SM2540 C and The analysis of TSS was based on method SM2540 D.

**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.

**APPROVED**

*By Nimisha Pandya, QA/QC Supervisor at 1:56 pm, Aug 05, 2025*

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 #: Q2696

Completed

For thorough review, the report must have the following:

#### GENERAL:

Are all original paperwork present (chain of custody, record of communication, airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

#### COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

#### CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

#### ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 08/04/2025

## LAB CHRONICLE

<b>OrderID:</b>	Q2696	<b>OrderDate:</b>	7/25/2025 10:41:00 AM					
<b>Client:</b>	Tetra Tech NUS, Inc.	<b>Project:</b>	NWIRP Bethpage 112G08005-WE13					
<b>Contact:</b>	Ernie Wu	<b>Location:</b>	D31					
<hr/>								
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2696-01	RW8-SP100-2025072 4	Water			<b>07/24/25</b>			<b>07/25/25</b>
			SVOC-SIMGroup1	8270-Modified		07/29/25	07/30/25	
Q2696-02	RW8-SP303-2025072 4	Water			<b>07/24/25</b>			<b>07/25/25</b>
			SVOC-SIMGroup1	8270-Modified		07/29/25	07/30/25	

A

B

C

D

E

F

G



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Fax : 908 789 8922

**Hit Summary Sheet**  
**SW-846**

**SDG No.:** Q2696

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

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



A  
B  
C  
D  
E  
F  
G

# 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:	RW8-SP100-20250724			SDG No.:	Q2696	
Lab Sample ID:	Q2696-01			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
BN037550.D	1	07/29/25 08:49	07/30/25 10:51	PB169039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.28		30 - 150		71%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		90%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		78%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		53 - 106		84%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.56	*	58 - 132		139%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	1940		7.724			
1146-65-2	Naphthalene-d8	4740		10.498			
15067-26-2	Acenaphthene-d10	2420		14.355			
1517-22-2	Phenanthrene-d10	4640		17.086			
1719-03-5	Chrysene-d12	3860		21.277			
1520-96-3	Perylene-d12	3340		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:	RW8-SP303-20250724	SDG No.:	Q2696
Lab Sample ID:	Q2696-02	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
BN037551.D	1	07/29/25 08:49	07/30/25 11:27	PB169039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.26		30 - 150		65%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		83%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.32		53 - 106		80%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.59	*	58 - 132		147%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	1940		7.724			
1146-65-2	Naphthalene-d8	4780		10.498			
15067-26-2	Acenaphthene-d10	2340		14.356			
1517-22-2	Phenanthrene-d10	4560		17.087			
1719-03-5	Chrysene-d12	3550		21.277			
1520-96-3	Perylene-d12	3030		23.514			

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



A  
B  
C  
D  
E  
F  
G

# QC SUMMARY

### Surrogate Summary

SW-846

SDG No.: **Q2696**

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
Q2696-01	RW8-SP100-20250724	2-Methylnaphthalene-d10	0.4	0.28	71		30	150
		Fluoranthene-d10	0.4	0.36	90		30	150
		Nitrobenzene-d5	0.4	0.31	78		55	111
		2-Fluorobiphenyl	0.4	0.34	84		53	106
		Terphenyl-d14	0.4	0.56	139	*	58	132
Q2696-02	RW8-SP303-20250724	2-Methylnaphthalene-d10	0.4	0.26	65		30	150
		Fluoranthene-d10	0.4	0.33	83		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.32	80		53	106
		Terphenyl-d14	0.4	0.59	147	*	58	132

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

**SW-846**

**SDG No.:** Q2696

**Analytical Method:** 8270-Modified

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

**DataFile:** BN037555.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Qual	Limits		RPD
									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.: Q2696

Analytical Method: 8270-Modified

Client: Tetra Tech NUS, Inc.

DataFile: BN037556.D

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

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Client ID

PB169039BL

Lab Name: Alliance

Contract: TETR06

Lab Code: ACE

SDG NO.: Q2696

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
RW8-SP100-20250724	Q2696-01	BN037550.D	07/30/2025
RW8-SP303-20250724	Q2696-02	BN037551.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.: Q2696  
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	100.0
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	100.0
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.: Q2696  
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	100.0
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	100.0
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
RW8-SP100-20250724	Q2696-01	BN037550.D	07/30/2025	10:51
RW8-SP303-20250724	Q2696-02	BN037551.D	07/30/2025	11:27
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



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

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance

Lab Code: ACE

SDG NO.: Q2696

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 RW8-SP100-20250724	1935	7.72	4743	10.50	2423	14.36
03 RW8-SP303-20250724	1937	7.72	4777	10.50	2343	14.36
04 PB169039BS	1872	7.72	4499	10.50	2146	14.35
05 PB169039BSD	1856	7.72	4469	10.50	2108	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 LOWER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	Alliance	
Lab Code:	ACE	SDG NO.: Q2696
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
	11704	17.587	9664	21.777	8594	24.008
	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 RW8-SP100-20250724	4635	17.09	3863	21.28	3344	23.51
03 RW8-SP303-20250724	4562	17.09	3546	21.28	3028	23.51
04 PB169039BS	3846	17.09	2873	21.28	2422	23.52
05 PB169039BSD	3782	17.09	2830	21.28	2422	23.52

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 LOWER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.



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# 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.:	Q2696
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
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
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
<b>INTERNAL STANDARDS</b>							
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.:	Q2696
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
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.31		0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
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
<b>INTERNAL STANDARDS</b>							
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.:	Q2696
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
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.30		0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
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
<b>INTERNAL STANDARDS</b>							
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



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# 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
<hr/>										
1) I	1,4-Dichlorobenzene								ISTD	
2)	1,4-Dioxane	0.409	0.395	0.371	0.398	0.380	0.354	0.385		5.29
3)	n-Nitrosodimethylamine	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-Chloroethyl)ether	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)	Hexachlorobutane	0.229	0.237	0.235	0.223	0.245	0.236	0.246	0.236	3.44
11)	SURR2-Methylnaphthalene	0.556	0.534	0.541	0.522	0.562	0.590	0.711	0.574	11.24
12)	2-Methylnaphthalene	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-Tribromoethane	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-phenol	0.044	0.041	0.047	0.057	0.070	0.080	0.057		27.89
21)	4-Bromophenylmethane	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)	SURRFluoranthene-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)anthracene	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-ethylhexyl)phthalate	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

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	Alliance	Contract:	TETR06
Lab Code:	ACE	SDG No.:	Q2696
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.:	Q2696
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

<b>OrderID:</b>	Q2696	<b>OrderDate:</b>	7/25/2025 10:41:00 AM					
<b>Client:</b>	Tetra Tech NUS, Inc.	<b>Project:</b>	NWIRP Bethpage 112G08005-WE13					
<b>Contact:</b>	Ernie Wu	<b>Location:</b>	D31					
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2696-01	RW8-SP100-2025072 4	Water			<b>07/24/25</b>			<b>07/25/25</b>
			Metals Group4	6010D		07/28/25	07/29/25	
Q2696-02	RW8-SP303-2025072 4	Water			<b>07/24/25</b>			<b>07/25/25</b>
			Metals Group4	6010D		07/28/25	07/30/25	



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

### Hit Summary Sheet SW-846

**SDG No.:** Q2696

**Order ID:** Q2696

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

**Project ID:** NWIRP Bethpage 112G08005-WE13

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
<b>Client ID :</b>	<b>RW8-SP100-20250724</b>								
Q2696-01	RW8-SP100-20250724	Water	Iron	757		11.7	40.0	50.0	ug/L
<b>Client ID :</b>	<b>RW8-SP303-20250724</b>								
Q2696-02	RW8-SP303-20250724	Water	Iron	85.8		11.7	40.0	50.0	ug/L



A  
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# 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:	RW8-SP100-20250724	SDG No.:	Q2696
Lab Sample ID:	Q2696-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7439-89-6	Iron	757		1	11.7	40.0	50.0	ug/L	07/28/25 12:20	07/29/25 15:44	6010D	SW3010

---

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group4			

---

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

## 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:	RW8-SP303-20250724	SDG No.:	Q2696
Lab Sample ID:	Q2696-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7439-89-6	Iron	85.8	J	1	11.7	40.0	50.0	ug/L	07/28/25 12:20	07/30/25 15:18	6010D	SW3010

---

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group4			

---

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits



METAL  
CALIBRATION  
DATA

**Metals****- 2a -****INITIAL AND CONTINUING CALIBRATION VERIFICATION**Client: Tetra Tech NUS, Inc.SDG No.: Q2696Contract: TETR06Lab Code: ACEInitial Calibration Source: EPAContinuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result		True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L								
ICV01	Iron	3950		4000	99	90 - 110	P	07/29/2025	12:20	LB136648

## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**Initial Calibration Source:** EPA

**Continuing Calibration Source:** Inorganic Ventures

Sample ID	Analyte	Result	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L							
LLICV01	Iron	107	100	107	80 - 120	P	07/29/2025	13:01	LB136648

## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**Initial Calibration Source:** EPA

**Continuing Calibration Source:** Inorganic Ventures

Sample ID	Analyte	Result		True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L								
CCV01	Iron	5240		5000	105	90 - 110	P	07/29/2025	14:21	LB136648
CCV02	Iron	4940		5000	99	90 - 110	P	07/29/2025	15:11	LB136648
CCV03	Iron	5020		5000	100	90 - 110	P	07/29/2025	16:14	LB136648
CCV04	Iron	5340		5000	107	90 - 110	P	07/29/2025	17:20	LB136648
CCV05	Iron	5290		5000	106	90 - 110	P	07/29/2025	18:11	LB136648
CCV06	Iron	4790		5000	96	90 - 110	P	07/29/2025	18:31	LB136648

**Metals****- 2a -****INITIAL AND CONTINUING CALIBRATION VERIFICATION**Client: Tetra Tech NUS, Inc.SDG No.: Q2696Contract: TETR06Lab Code: ACEInitial Calibration Source: EPAContinuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result		True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L								
ICV01	Iron	3880		4000	97	90 - 110	P	07/30/2025	14:11	LB136658

## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**Initial Calibration Source:** EPA

**Continuing Calibration Source:** Inorganic Ventures

Sample ID	Analyte	Result		True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L								
LLICV01	Iron	102		100	102	80 - 120	P	07/30/2025	14:16	LB136658

## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**Initial Calibration Source:** EPA

**Continuing Calibration Source:** Inorganic Ventures

Sample ID	Analyte	Result		True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L								
CCV01	Iron	4900		5000	98	90 - 110	P	07/30/2025	14:45	LB136658
CCV02	Iron	4860		5000	97	90 - 110	P	07/30/2025	15:35	LB136658
CCV03	Iron	4870		5000	97	90 - 110	P	07/30/2025	15:51	LB136658



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

### Metals

- 2b -

#### CRDL STANDARD FOR AA & ICP

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**Initial Calibration Source:**  

**Continuing Calibration Source:**  

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Iron	106	100	106	65 - 135	P	07/29/2025	13:09	LB136648
CRI01	Iron	98.8	100	99	65 - 135	P	07/30/2025	14:24	LB136658



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

### Metals

- 3a -

#### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Iron	23.4	+/-50	U	80.0		100	P	07/29/2025	13:05

## Metals

- 3a -

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	14:25	LB136648
CCB02	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	15:15	LB136648
CCB03	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	16:20	LB136648
CCB04	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	17:24	LB136648
CCB05	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	18:15	LB136648
CCB06	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	18:36	LB136648

## Metals

- 3a -

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Iron	23.4	+/-50	U	80.0		100	P	07/30/2025	14:20

## Metals

- 3a -

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Iron	23.4	+/-50	U	80.0	100	P	07/30/2025	14:49	LB136658
CCB02	Iron	23.4	+/-50	U	80.0	100	P	07/30/2025	15:39	LB136658
CCB03	Iron	23.4	+/-50	U	80.0	100	P	07/30/2025	15:56	LB136658

**Metals**

- 3a -

**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
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**Metals****- 3b -****PREPARATION BLANK SUMMARY****Client:** Tetra Tech NUS, Inc.**SDG No.:** Q2696**Instrument:** P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB169032BL	Iron	WATER 20.6	<25	J	40.0	PB169032 50.0	P	07/29/2025	15:36	LB136648

## Metals

- 4 -

### INTERFERENCE CHECK SAMPLE

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**ICS Source:** EPA

**Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
<b>ICSA01</b>	Iron	103000	101000	102	85600	116500	07/29/2025	13:14	LB136648
<b>ICSA01</b>	Iron	98500	99300	99	84400	114500	07/29/2025	13:20	LB136648
<b>ICSA01</b>	Iron	99800	101000	99	85600	116500	07/30/2025	14:28	LB136658
<b>ICSA01</b>	Iron	101000	99300	102	84400	114500	07/30/2025	14:33	LB136658



A  
B  
C  
D  
E  
F  
G  
H

# METAL QC DATA

**metals**

- 5a -

**MATRIX SPIKE SUMMARY**

client:	Tetra Tech NUS, Inc.	level:	low	sdg no.:	Q2696
contract:	TETR06			lab code:	ACE
matrix:	Water	sample id:	Q2696-02	client id:	RW8-SP303-20250724MS

Percent Solids for Sample:	NA	Spiked ID:	Q2696-02MS	Percent Solids for Spike Sample:	NA
----------------------------	----	------------	------------	----------------------------------	----

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	87 - 115	1610		85.8		1500	101		P

**metals**

- 5a -

**MATRIX SPIKE DUPLICATE SUMMARY**

client:	Tetra Tech NUS, Inc.	level:	low	sdg no.:	Q2696
contract:	TETR06			lab code:	ACE
matrix:	Water	sample id:	Q2696-02	client id:	RW8-SP303-20250724MSD

Percent Solids for Sample:	NA	Spiked ID:	Q2696-02MSD	Percent Solids for Spike Sample:	NA
----------------------------	----	------------	-------------	----------------------------------	----

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	87 - 115	1590		85.8		1500	100	P	

A  
B  
C  
D  
E  
F  
G  
H

**Metals**  
**- 5b -**Client: Tetra Tech NUS, Inc.SDG No.: Q2696Contract: TETR06Lab Code: ACE

Matrix: \_\_\_\_\_

Level: LOW

Client ID: \_\_\_\_\_

Sample ID: Spiked ID:

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M
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### Metals

- 6 -

#### DUPLICATE SAMPLE SUMMARY

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

**Level:** LOW

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**Matrix:** Water

**Sample ID:** Q2696-02

**Client ID:** RW8-SP303-20250724DUP

**Percent Solids for Sample:** NA

**Duplicate ID:** Q2696-02DUP      **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	85.8		80.7		6	P	

<sup>a</sup>A control limit of  $\pm 20\%$  RPD for each matrix applies for sample values greater than 10 times Detection Limit<sup>b</sup>

### Metals

- 6 -

#### DUPLICATE SAMPLE SUMMARY

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

**Level:** LOW

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**Matrix:** Water

**Sample ID:** Q2696-02MS

**Client ID:** RW8-SP303-20250724MSD

**Percent Solids for Sample:** NA

**Duplicate ID** Q2696-02MSD      **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	1610		1590		1	P	

<sup>a</sup>A control limit of  $\pm 20\%$  RPD for each matrix applies for sample values greater than 10 times Detection Limit<sup>b</sup>

**Metals**

- 7 -

**LABORATORY CONTROL SAMPLE SUMMARY**

**Client:** Tetra Tech NUS, Inc.      **SDG No.:** Q2696  
**Contract:** TETR06      **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
<b>PB169032BS</b>							
Iron	ug/L	1500	1500		100	87 - 115	P

### Metals

-9 -

#### ICP SERIAL DILUTIONS

SAMPLE NO.

RW8-SP303-20250724L

Lab Name: Alliance Contract: TETR06  
 Lab Code: ACE Lb No.: lb136658 Lab Sample ID : Q2696-02L SDG No.: Q2696  
 Matrix (soil/water): Water Level (low/med): LOW  
 Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Iron	85.8		65.2 J		24		P



METAL  
PREPARATION &  
INSTRUMENT  
DATA

**Metals****- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q2696Contract: TETR06Lab Code: ACE

Instrument ID: \_\_\_\_\_

Date: \_\_\_\_\_

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

**Metals****- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q2696Contract: TETR06Lab Code: ACE

Instrument ID: \_\_\_\_\_

Date: \_\_\_\_\_

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		As	Ba	Be	Cd	Co
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600

**Metals****- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q2696Contract: TETR06Lab Code: ACE

Instrument ID: \_\_\_\_\_

Date: \_\_\_\_\_

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Cr	Cu	K	Mn	Mo
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250

**Metals****- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q2696Contract: TETR06Lab Code: ACE

Instrument ID: \_\_\_\_\_

Date: \_\_\_\_\_

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Na	Ni	Pb	Sb	Se
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000

**Metals****- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q2696Contract: TETR06Lab Code: ACE

Instrument ID: \_\_\_\_\_

Date: \_\_\_\_\_

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Sn	Ti	Tl	V	Zn
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000



METAL  
PREPARATION &  
ANALYTICAL  
SUMMARY

**Metals**

- 13 -

**SAMPLE PREPARATION SUMMARY**

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

**SDG No.:** Q2696

**Contract:** TETR06

**Lab Code:** ACE

**Method:** \_\_\_\_\_

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
	<b>Batch Number: PB169032</b>						
PB169032BL	PB169032BL	MB	WATER	07/28/2025	50.0	25.0	
PB169032BS	PB169032BS	LCS	WATER	07/28/2025	50.0	25.0	
Q2696-01	RW8-SP100-20250724	SAM	WATER	07/28/2025	50.0	25.0	
Q2696-02	RW8-SP303-20250724	SAM	WATER	07/28/2025	50.0	25.0	
Q2696-02DUP	RW8-SP303-20250724DUP	DUP	WATER	07/28/2025	50.0	25.0	
Q2696-02MS	RW8-SP303-20250724MS	MS	WATER	07/28/2025	50.0	25.0	
Q2696-02MSD	RW8-SP303-20250724MSD	MSD	WATER	07/28/2025	50.0	25.0	

**metals**

- 14 -

**ANALYSIS RUN LOG**

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

**Contract:** TETR06

**Lab code:** ACE

**Sdg no.:** Q2696

**Instrument id number:**

**Method:**

**Run number:** LB136648

**Start date:** 07/29/2025

**End date:** 07/29/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1120	Fe
S1	S1	1	1124	Fe
S2	S2	1	1128	Fe
S3	S3	1	1132	Fe
S4	S4	1	1137	Fe
S5	S5	1	1141	Fe
ICV01	ICV01	1	1220	Fe
LLICV01	LLICV01	1	1301	Fe
ICB01	ICB01	1	1305	Fe
CRI01	CRI01	1	1309	Fe
ICSA01	ICSA01	1	1314	Fe
ICSAB01	ICSAB01	1	1320	Fe
CCV01	CCV01	1	1421	Fe
CCB01	CCB01	1	1425	Fe
CCV02	CCV02	1	1511	Fe
CCB02	CCB02	1	1515	Fe
PB169032BL	PB169032BL	1	1536	Fe
Q2696-01	RW8-SP100-20250724	1	1544	Fe
PB169032BS	PB169032BS	1	1606	Fe
CCV03	CCV03	1	1614	Fe
CCB03	CCB03	1	1620	Fe
CCV04	CCV04	1	1720	Fe
CCB04	CCB04	1	1724	Fe
CCV05	CCV05	1	1811	Fe
CCB05	CCB05	1	1815	Fe
CCV06	CCV06	1	1831	Fe
CCB06	CCB06	1	1836	Fe

**metals**

- 14 -

**ANALYSIS RUN LOG**

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

**Contract:** TETR06

**Lab code:** ACE

**Sdg no.:** Q2696

**Instrument id number:**

**Method:**

**Run number:** LB136658

**Start date:** 07/30/2025

**End date:** 07/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1340	Fe
S1	S1	1	1345	Fe
S2	S2	1	1349	Fe
S3	S3	1	1353	Fe
S4	S4	1	1357	Fe
S5	S5	1	1401	Fe
ICV01	ICV01	1	1411	Fe
LLICV01	LLICV01	1	1416	Fe
ICB01	ICB01	1	1420	Fe
CRI01	CRI01	1	1424	Fe
ICSA01	ICSA01	1	1428	Fe
ICSAB01	ICSAB01	1	1433	Fe
CCV01	CCV01	1	1445	Fe
CCB01	CCB01	1	1449	Fe
Q2696-02	RW8-SP303-20250724	1	1518	Fe
Q2696-02DUP	RW8-SP303-20250724DUP	1	1522	Fe
Q2696-02L	RW8-SP303-20250724L	5	1526	Fe
Q2696-02MS	RW8-SP303-20250724MS	1	1531	Fe
CCV02	CCV02	1	1535	Fe
CCB02	CCB02	1	1539	Fe
Q2696-02MSD	RW8-SP303-20250724MSD	1	1543	Fe
CCV03	CCV03	1	1551	Fe
CCB03	CCB03	1	1556	Fe

## LAB CHRONICLE

<b>OrderID:</b>	Q2696	<b>OrderDate:</b>	7/25/2025 10:41:00 AM					
<b>Client:</b>	Tetra Tech NUS, Inc.	<b>Project:</b>	NWIRP Bethpage 112G08005-WE13					
<b>Contact:</b>	Ernie Wu	<b>Location:</b>	D31					
<hr/>								
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2696-01	RW8-SP100-2025072 4	WATER			<b>07/24/25 13:05</b>			<b>07/25/25</b>
			Anions Group4	300.0			07/25/25 14:21	
Q2696-02	RW8-SP303-2025072 4	WATER			<b>07/24/25 13:13</b>			<b>07/25/25</b>
			TDS		SM2540 C		07/25/25 15:30	
			TSS		SM2540 D		07/25/25 16:00	



# SAMPLE

# DATA

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/25 13:05
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/25/25
Client Sample ID:	RW8-SP100-20250724	SDG No.:	Q2696
Lab Sample ID:	Q2696-01	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 14:21	300.0
Nitrate	0.15	J	1	0.095	0.25	0.50	mg/L		07/25/25 14:21	300.0
Nitrate+Nitrite	0.15	U	1	0.17	0.55	1.10	mg/L		07/25/25 14:21	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/25 13:13
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/25/25
Client Sample ID:	RW8-SP303-20250724	SDG No.:	Q2696
Lab Sample ID:	Q2696-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TDS	59.0		1	1.00	10.0	10.0	mg/L		07/25/25 15:30	SM 2540 C-20
TSS	4.00	U	1	1.00	4.00	4.00	mg/L		07/25/25 16:00	SM 2540 D-20

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



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

7

A

B

C

D

## Initial and Continuing Calibration Verification

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>	Q2696
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>RunNo.:</b>	LB136635

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
<b>Sample ID: ICV1</b>							
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
<b>Sample ID: CCV1</b>							
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
<b>Sample ID: CCV2</b>							
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
<b>Sample ID: CCV3</b>							
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



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### Initial and Continuing Calibration Blank Summary

<b>Client:</b>	Tetra Tech NUS, Inc.			<b>SDG No.:</b>	Q2696		
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13			<b>RunNo.:</b>	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.:	Q2696
Project:	NWIRP Bethpage 112G08005-WE13		

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB136625BL							
TDS	mg/L	1	5.0000	J	1.0	10	07/25/2025
Sample ID: LB136626BL							
TSS	mg/L	1	2.0000	J	1	4	07/25/2025
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

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>	Q2696
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>Sample ID:</b>	Q2695-01
<b>Client ID:</b>	RW5-SP100-20250724MS	<b>Percent Solids for Spike Sample:</b>	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

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>	Q2696
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>Sample ID:</b>	Q2695-01
<b>Client ID:</b>	RW5-SP100-20250724MSD	<b>Percent Solids for Spike Sample:</b>	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

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>	Q2696
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>Sample ID:</b>	Q2682-02
<b>Client ID:</b>	TOWER-2DUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TSS	mg/L	+/-5	2.30	J	2.30	J	1	0		07/25/2025

### Duplicate Sample Summary

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>	Q2696
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>Sample ID:</b>	Q2695-01
<b>Client ID:</b>	RW5-SP100-20250724MSD	<b>Percent Solids for Spike Sample:</b>	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

### Duplicate Sample Summary

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>	Q2696
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>Sample ID:</b>	Q2696-02
<b>Client ID:</b>	RW8-SP303-20250724DUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TDS	mg/L	+/-5	59.0		58.0		1	1.71		07/25/2025

### Laboratory Control Sample Summary

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>	Q2696
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>Run No.:</b>	LB136625

Analyte	Sample ID	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
	LB136625BS								
TDS		mg/L	100	94.0		94	1	90-110	07/25/2025

### Laboratory Control Sample Summary

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>	Q2696
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>Run No.:</b>	LB136626

Analyte	Sample ID	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
	LB136626BS								
TSS		mg/L	550	532		97	1	90-110	07/25/2025

### Laboratory Control Sample Summary

<b>Client:</b>	Tetra Tech NUS, Inc.	<b>SDG No.:</b>		Q2696					
<b>Project:</b>	NWIRP Bethpage 112G08005-WE13	<b>Run No.:</b>		LB136635					
Analyte	Sample ID	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Bromide	LB136635BSW	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 07046  
(908) 789-8900 Fax: (908) 78-8922  
www.chemtech.net

Chemtech Project Number: Q220946  
COC Number:

<b>CLIENT INFORMATION</b>		<b>PROJECT INFORMATION</b>		<b>BILLING INFORMATION</b>									
COMPANY: Tetra Tech		PROJECT NAME: NWIRP Beppage		BILL TO:									
ADDRESS: 4433 Corporation Ln, Suite 300		PROJECT #: 112G08005-WE3		PO#:									
CITY: Virginia Beach		LOCATION: RW8		ADDRESS:									
STATE: VA ZIP: 23462		PROJECT MANAGER: Ernie Wu		CITY:									
ATTENTION: Ernie Wu		E-MAIL: ernie.wu@tetratech.com		STATE: ZIP:									
PHONE: 757-466-4901		PHONE: 757-466-4901		ATTENTION:									
FAX: 10 DAYS*		FAX: 757-461-4148		PHONE:									
HARD COPY: 10 DAYS*		RESEULTS ONLY		ANALYSIS									
EDD 10 DAYS*		<input type="checkbox"/> USEPA CLP <input type="checkbox"/> RESULTS + QC <input type="checkbox"/> New Jersey REDUCED <input type="checkbox"/> New Jersey CLP <input type="checkbox"/> Other _____ <input type="checkbox"/> EDD Format											
* TO BE APPROVED BY CHEMTECH													
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS													
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION	# of Bottles	B	A-HCl	B-HNO3	C-H2SO4	D-NaOH	E-ICE	F-Other	<... Specify Preservatives
			COMP	GRAB									
1.	RW8-SP100-20250724	GW	X	7/24/25	13:05	3	X	X	X				pH 1.3
2.	RW8-SP303-20250724	GW	X	7/24/25	13:13	4	X	X	X				pH 1.3
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY</b>													
RELINQUISHED BY SAMPLER		DATETIME RECEIVED BY	Conditions of bottles or coolers at receipt: MeOH extraction requires an additional 4oz. Jar for percent solid Comments: _____										
1. <i>J. J. Wu</i>		7/14/25 11:10	<input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input type="checkbox"/> Cooler Temp 2.3 <input type="checkbox"/> Ice in Cooler? Yes										
RELINQUISHED BY		DATETIME RECEIVED BY											
2. <i>T.R. Bent</i>		7/15/25 10:10											
RELINQUISHED BY		DATETIME RECEIVED FOR LAB BY	Shipped via: CLIENT: <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Overnight CHEMTECH: <input type="checkbox"/> Picked Up <input type="checkbox"/> Overnight Shipment Complete <input type="checkbox"/> YES <input type="checkbox"/> NO										
3. <i>T.R. Bent</i>		7/15/25 10:10											
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