

DATA PACKAGE GENERAL CHEMISTRY

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 : Q2488

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q2488

Project ID : NWIRP Bethpage 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

Q2488-01
Q2488-02

Client Sample Number

RW8-SP100-20250701
RW8-SP303-20250701

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

Signature : _____

Date: 7/8/2025

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 Manager : Ernie Wu

Order ID # Q2488

Test Name: TDS,TSS

A. Number of Samples and Date of Receipt:

2 Water samples were received on 07/02/2025.

B. Parameters:

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

C. Analytical Techniques:

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 parameters.

The Duplicate analysis met criteria for all parameters.

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

The Calibration met the requirements.

E. Additional Comments:

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

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

Signature_____

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

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

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q2488

MATRIX: Water

METHOD: SM2540 C,SM2540 D

	NA	NO	YES
1. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
2. The Blank Spike met requirements for all parameters.			✓
3. Sample Duplicate Analysis Met QC Criteria			✓
If not met, list those compounds and their recoveries which fall outside the acceptable range.			
4. Digestion Holding Time Met			✓
If not met, list number of days exceeded for each sample:			

ADDITIONAL COMMENTS:

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

QA REVIEW

Date

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2488

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: MOHAMMAD AHMED

Date: 07/08/2025

LAB CHRONICLE

OrderID:	Q2488	OrderDate:	7/2/2025 11:43:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	NWIRP Bethpage 112G08005-WE13
Contact:	Ernie Wu	Location:	A42

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2488-02	RW8-SP303-2025070 1	WATER			07/01/25 13:13			07/02/25
			TDS	SM2540 C			07/02/25 16:30	
			TSS	SM2540 D			07/03/25 09:30	



SAMPLE DATA

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/01/25 13:13
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/02/25
Client Sample ID:	RW8-SP303-20250701	SDG No.:	Q2488
Lab Sample ID:	Q2488-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TDS	64.0		1	1.00	10.0	10.0	mg/L		07/02/25 16:30	SM 2540 C-20
TSS	4.00	U	1	1.00	4.00	4.00	mg/L		07/03/25 09:30	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

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Preparation Blank Summary

Client: Tetra Tech NUS, Inc.

SDG No.: Q2488

Project: NWIRP Bethpage 112G08005-WE13

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB136363BL							
TDS	mg/L	< 5.0000	5.0000	U	1.0	10	07/02/2025
Sample ID: LB136376BL							
TSS	mg/L	1	2.0000	J	1	4	07/03/2025

Duplicate Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q2488
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q2488-02
Client ID:	RW8-SP303-20250701DUP	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
TDS	mg/L	+/-5	64.0		61.0		1	4.8		07/02/2025

Duplicate Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q2488
Project:	NWIRP Bethpage 112G08005-WE13	Sample ID:	Q2499-02
Client ID:	CompDUP	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
TSS	mg/L	+/-5	338		341		1	0.88		07/03/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q2488
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB136363

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB136363BS							
TDS	mg/L	100	95.0		95	1	90-110	07/02/2025

Laboratory Control Sample Summary

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q2488
Project:	NWIRP Bethpage 112G08005-WE13	Run No.:	LB136376

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB136376BS							
TSS	mg/L	550	533		97	1	90-110	07/03/2025



RAW DATA

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TOTAL Dissolved Solids - SM2540C

Run Number: LB136363

Date: 07/03/2025

SUPERVISOR: Iwona

ANALYST: jignesh

BalanceID: WC SC-6

Filter ID: 17416528

EMPTY DISH				EMPTY DISH				OvenID:	WC OVEN-1	Thermo ID:	WET IVEN-1
TEMP IN:	103 °C	07/02/2025	11:00	TEMP OUT:	103 °C	07/02/2025	12:00	OvenID1:	WC OVEN-1	Thermo ID1:	WET OVEN#1
TEMP1 IN:	104 °C	07/02/2025	12:30	TEMP1 OUT:	104 °C	07/02/2025	13:30	OvenID2:	WC OVEN-2	Thermo ID2:	WET OVEN#2
TEMP2 IN:	104 °C	07/02/2025	16:30	TEMP2 OUT:	104 °C	07/03/2025	07:30	OvenID3:	WC OVEN-2	Thermo ID3:	WET OVEN#2
TEMP3 IN:	180 °C	07/03/2025	07:35	TEMP3 OUT:	180 °C	07/03/2025	10:00				

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @180(±2) °C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @180(±2) °C (g)	Final Empty Dish+Sample weight after 1.5hr drying @180(±2) °C (g)	Weight (g)	Result mg/L
1	LB136363BL	LB136363BL	89.6371	89.6371	100	89.6371	89.6371	89.6371	0.0000	0
2	LB136363BS	LB136363BS	74.5036	74.5036	100	74.5131	74.5131	74.5131	0.0095	95
3	Q2488-02	RW8-SP303-20250701	110.2261	110.2260	100	110.2324	110.2324	110.2324	0.0064	64
4	Q2488-02DUP	RW8-SP303-20250701DUP	106.1498	106.1498	100	106.1559	106.1559	106.1559	0.0061	61

A = Sample Volume (ml)

B = Empty Dish Weight (g)

C = 2nd Empty Dish + Sample weight after 1.5 hr drying @180(±2) °C(g)

D = Weight (g)

$$\text{Weight (g)} = C - B$$

$$\text{Result mg/L} = \frac{D}{A} * 1000 * 1000$$

WORKLIST(Hardcopy Internal Chain)

VB 136363

WorkList Name : tds qw2482

WorkList ID : 190513

Department : Wet-Chemistry

Date : 07-02-2025 13:34:08

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2488-02	B RW8-SP303-20250701	Water	TDS	Cool 4 deg C	TETR06	A42	07/01/2025	SM2540 C

Date/Time 07/02/25 13:14:5

Raw Sample Received by: ST (sm)

Raw Sample Relinquished by: ST (sm)

Date/Time 07/02/25

Raw Sample Received by: ST (sm)

Raw Sample Relinquished by: ST (sm)

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 07/02/2025

Run Number: LB136376

BalanceID: WC SC-6

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 07/02/2025 15:00 TEMP1 OUT: 104 °C 07/02/2025 16:00
 TEMP2 IN: 103 °C 07/02/2025 16:30 TEMP2 OUT: 103 °C 07/02/2025 17:30
 TEMP3 IN: 104 °C 07/03/2025 09:30 TEMP3 OUT: 104 °C 07/03/2025 11:00
 TEMP4 IN: 103 °C 07/03/2025 11:30 TEMP4 OUT: 104 °C 07/03/2025 13:00

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
1	LB136376BL	LB136376BL	1.3586	1.3586	100	1.3587	1.3587	1.3587	0.0001	1
2	LB136376BS	LB136376BS	1.8563	1.8563	100	1.9096	1.9096	1.9096	0.0533	533
3	Q2488-02	RW8-SP303-20250701	1.4896	1.4896	900	1.4903	1.4903	1.4903	0.0007	0.8
4	Q2499-02	Comp	1.4885	1.4885	100	1.5223	1.5223	1.5223	0.0338	338
5	Q2499-02DUP	CompDUP	1.4920	1.4920	100	1.5261	1.5261	1.5261	0.0341	341

A = Sample Volume (ml)
 B = Final Empty Dish Weight (g)
 C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)
 D = Weight (g)

Weight (g) = C - B

Result mg/L = $\frac{D}{A} \times 1000 \times 1000$

WORKLIST(Hardcopy Internal Chain)

JB 136376

WorkList Name : tss q2499 WorkList ID : 190524 Department : Wet-Chemistry Date : 07-03-2025 07:40:17

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2488-02	RW8-SP303-20250701	Water	TSS	Cool 4 deg C	TETR06	A42	07/01/2025	SM2540 D
Q2499-02	Comp	Water	TSS	Cool 4 deg C	ARAM01	A43	07/02/2025	SM2540 D

Date/Time 070325 08:10
Raw Sample Received by: SA WOI
Raw Sample Relinquished by: JDCSM

Date/Time 070325 13:30
Raw Sample Received by: JDCSM
Raw Sample Relinquished by: SA WOI

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB136363

Review By	jignesh	Review On	7/3/2025 11:42:33 AM
Supervise By	Iwona	Supervise On	7/3/2025 12:56:06 PM
SubDirectory	LB136363	Test	TDS
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB136363BL	LB136363BL	MB	07/02/25 16:30		jignesh	OK
2	LB136363BS	LB136363BS	LCS	07/02/25 16:30	WP113791	jignesh	OK
3	Q2488-02	RW8-SP303-2025070	SAM	07/02/25 16:30		jignesh	OK
4	Q2488-02DUP	RW8-SP303-2025070	DUP	07/02/25 16:30		jignesh	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB136376

Review By	jignesh	Review On	7/7/2025 12:24:03 PM
Supervise By	Iwona	Supervise On	7/7/2025 12:30:06 PM
SubDirectory	LB136376	Test	TSS
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB136376BL	LB136376BL	MB	07/03/25 09:30		jignesh	OK
2	LB136376BS	LB136376BS	LCS	07/03/25 09:30		jignesh	OK
3	Q2488-02	RW8-SP303-2025070	SAM	07/03/25 09:30		jignesh	OK
4	Q2499-02	Comp	SAM	07/03/25 09:30		jignesh	OK
5	Q2499-02DUP	CompDUP	DUP	07/03/25 09:30		jignesh	OK

Prep Standard - Chemical Standard Summary

Order ID : Q2488

Test : TDS,TSS

Prepbatch ID :

Sequence ID/Qc Batch ID: LB136363, LB136376,

Standard ID :

Chemical ID :

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
				/	/	



SHIPPING DOCUMENTS

- 1
- 2
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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