

ANALYTICAL RESULTS SUMMARY

METALS
SEMI-VOLATILE ORGANICS

PROJECT NAME : CTO WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : P4868

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



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Cover Page

Order ID : P4868

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

P4868-01
P4868-02
P4868-03

Client Sample Number

RW5-SP100-20241114
RW5-SP201-20241114
RW5-SP303-20241114

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 : N. N. Pandya

APPROVED

Date: 11/27/2024
By Nimisha Pandya, QA/QC Supervisor at 10:48 am, Nov 27, 2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager : Ernie Wu

Chemtech Project # P4868

Test Name: SVOC-TCL BNA -20

A. Number of Samples and Date of Receipt:

3 Water samples were received on 11/14/2024.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, SVOC-SIMGroup1 and SVOC-TCL BNA - 20. This data package contains results for SVOC-TCL BNA -20.

C. Analytical Techniques:

The samples were analyzed on instrument BNA_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um df. The analysis of SVOC-TCL BNA -20 was based on method 8270E and extraction was done based on method 3510.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for RW5-SP303-20241114RE [2-Fluorobiphenyl - 120%], as per method one acid and one base surrogate allow to fail therefore no corrective action taken.

The Internal Standards Areas met the acceptable requirements except for RW5-SP303-20241114, RW5-SP303-20241114RE, sample was reanalyzed to confirm the failure and reported.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike for {PB165039BS} with File ID: BF140490.D met requirements for all samples except for Hexachlorocyclopentadiene[160%] is failing high but no positive hit in associate sample therefore no corrective action taken.

The Blank Spike Duplicate for {PB165039BSD} with File ID: BF140491.D met requirements for all samples except for Hexachlorocyclopentadiene[160%] is failing high but no positive hit in associate sample therefore no corrective action taken.

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

The Initial Calibration met the requirements .

The Continuous Calibration File ID BF140488.D met the requirements except for Benzaldehyde is failing high but no positive hit in associate sample therefore no corrective action taken.

The Tuning criteria met requirements.

E. Additional Comments:

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

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

The not QT review data is reported in the Miscellaneous.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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 N. N. Pandya

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 10:49 am, Nov 27, 2024

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager : Ernie Wu

Chemtech Project # P4868

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

3 Water samples were received on 11/14/2024.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, SVOC-SIMGroup1 and SVOC-TCL BNA - 20. This data package contains results for SVOC-SIMGroup1.

C. Analytical Techniques:

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

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for

RW5-SP100-20241114 [Nitrobenzene-d5 - 46%, Terphenyl-d14 - 441%],

RW5-SP201-20241114 [Terphenyl-d14 - 3736%],

RW5-SP303-20241114 [2-Fluorobiphenyl - 38%, Terphenyl-d14 - 677%],

PB165012BL [2-Fluorobiphenyl - 42%, Terphenyl-d14 - 323%],

PB165012BS [2-Fluorobiphenyl - 22%, Terphenyl-d14 - 556%],

PB165012BSD [2-Fluorobiphenyl - 19% and Terphenyl-d14 - 567%], failing surrogates was not associated with client parameter list, therefore no corrective action taken.

The Internal Standards Areas met the acceptable requirements except for RW5-SP303-20241114, RW5-SP201-20241114, PB165012BS and PB165012BSD, failing Internal Standards were not associated with client parameter list, therefore no corrective action taken.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

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

The Initial Calibration met the requirements .

The Continuous Calibration File ID BN035219.D met the requirements except for 2-Fluorobiphenyl, Fluoranthene-d10, Nitrobenzene-d5 and Terphenyl-d14 which are not our target compound, therefore no corrective action taken.

The Continuous Calibration File ID BN035235.D met the requirements except for 2-Fluorobiphenyl and Terphenyl-d14 which are not our target compound, therefore no Corrective action taken.

The Tuning criteria met requirements.

Samples RW5-SP100-20241114 was diluted at 5X. This sample initially analyzed straight in sequence BN112024 but END CCAL is missing therefore based on that result lab analyzed this sample directly with 5X while Straight analysis given as screening data in Miscellaneous section.

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.

The not QT review data is reported in the Miscellaneous.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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 N. N. Pandya

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 10:49 am, Nov 27, 2024

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager: Ernie Wu

Chemtech Project # P4868

Test Name: Metals ICP-TAL,Mercury

A. Number of Samples and Date of Receipt:

3 Water samples were received on 11/14/2024.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, SVOC-SIMGroup1 and SVOC-TCL BNA - 20. This data package contains results for Metals ICP-TAL,Mercury.

C. Analytical Techniques:

The analysis of Metals ICP-TAL was based on method 6010D, digestion based on method 3010 (waters). The analysis and digestion of Mercury was based on method 7470A.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

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

The Calibration met the requirements.

The Serial Dilution met criteria for all samples.

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 N. N. Pandya

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 10:49 am, Nov 27, 2024

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 #: P4868

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: 11/27/2024

LAB CHRONICLE

OrderID:	P4868	OrderDate:	11/14/2024 3:41:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4868-01	RW5-SP100-20241114	Water			11/14/24			11/14/24
			SVOC-SIMGroup1	8270-Modified		11/15/24	11/21/24	
			SVOC-TCL BNA -20	8270E		11/16/24	11/20/24	
P4868-03	RW5-SP303-20241114	Water			11/14/24			11/14/24
			SVOC-SIMGroup1	8270-Modified		11/15/24	11/21/24	
			SVOC-TCL BNA -20	8270E		11/16/24	11/20/24	
P4868-03RE	RW5-SP303-20241114RE	Water			11/14/24			11/14/24
			SVOC-TCL BNA -20	8270E		11/16/24	11/20/24	

Hit Summary Sheet SW-846

SDG No.: P4868
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	RW5-SP100-20241114								
P4868-01	RW5-SP100-20241114	WATER	1,4-Dioxane	9.800		1.3	4.1	5.1	ug/L
Total Svoc :				9.80					
P4868-01	RW5-SP100-20241114	WATER	2-Pentanone, 4-hydroxy-4-methyl *	6.100	AB	0		0	ug/L
P4868-01	RW5-SP100-20241114	WATER	3-Penten-2-one, 4-methyl- *	8.000	A	0		0	ug/L
P4868-01	RW5-SP100-20241114	WATER	Butane, 2-methoxy-2-methyl- *	110.000	J	0		0	ug/L
P4868-01	RW5-SP100-20241114	WATER	Trichloroethylene *	180.000	J	0		0	ug/L
Total Tics :				304.10					
Total Concentration:				313.90					
Client ID :	RW5-SP303-20241114								
P4868-03	RW5-SP303-20241114	WATER	2-Pentanone, 4-hydroxy-4-methyl *	3.300	AB	0		0	ug/L
P4868-03	RW5-SP303-20241114	WATER	3-Penten-2-one, 4-methyl- *	30.100	A	0		0	ug/L
P4868-03	RW5-SP303-20241114	WATER	Butane, 2-methoxy-2-methyl- *	87.000	J	0		0	ug/L
P4868-03	RW5-SP303-20241114	WATER	Cyclotrisiloxane, hexamethyl- *	2.000	J	0		0	ug/L
Total Tics :				122.40					
Total Concentration:				122.40					



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP100-20241114		SDG No.:	P4868	
Lab Sample ID:	P4868-01		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	980	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140493.D	1	11/16/24 08:15	11/20/24 11:49	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	8.20	U	4.10	8.20	10.2	ug/L
108-95-2	Phenol	4.10	U	0.95	4.10	5.10	ug/L
111-44-4	bis(2-Chloroethyl)ether	4.10	U	1.20	4.10	5.10	ug/L
95-57-8	2-Chlorophenol	4.10	U	0.72	4.10	5.10	ug/L
95-48-7	2-Methylphenol	4.10	U	1.20	4.10	5.10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	4.10	U	1.40	4.10	5.10	ug/L
98-86-2	Acetophenone	4.10	U	1.10	4.10	5.10	ug/L
65794-96-9	3+4-Methylphenols	8.20	U	1.20	8.20	10.2	ug/L
621-64-7	n-Nitroso-di-n-propylamine	2.60	U	1.50	2.60	2.60	ug/L
67-72-1	Hexachloroethane	4.10	U	1.00	4.10	5.10	ug/L
98-95-3	Nitrobenzene	4.10	U	1.30	4.10	5.10	ug/L
78-59-1	Isophorone	4.10	U	1.20	4.10	5.10	ug/L
88-75-5	2-Nitrophenol	4.10	U	2.00	4.10	5.10	ug/L
105-67-9	2,4-Dimethylphenol	4.10	U	1.50	4.10	5.10	ug/L
111-91-1	bis(2-Chloroethoxy)methane	4.10	U	1.00	4.10	5.10	ug/L
120-83-2	2,4-Dichlorophenol	4.10	U	0.90	4.10	5.10	ug/L
91-20-3	Naphthalene	4.10	U	1.00	4.10	5.10	ug/L
106-47-8	4-Chloroaniline	4.10	U	1.30	4.10	5.10	ug/L
87-68-3	Hexachlorobutadiene	4.10	U	1.30	4.10	5.10	ug/L
105-60-2	Caprolactam	8.20	U	1.70	8.20	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	4.10	U	0.86	4.10	5.10	ug/L
91-57-6	2-Methylnaphthalene	4.10	U	1.20	4.10	5.10	ug/L
77-47-4	Hexachlorocyclopentadiene	8.20	UQ	5.10	8.20	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	4.10	U	0.91	4.10	5.10	ug/L
95-95-4	2,4,5-Trichlorophenol	4.10	U	1.00	4.10	5.10	ug/L
92-52-4	1,1-Biphenyl	4.10	U	0.93	4.10	5.10	ug/L
91-58-7	2-Chloronaphthalene	4.10	U	0.99	4.10	5.10	ug/L
88-74-4	2-Nitroaniline	4.10	U	1.40	4.10	5.10	ug/L
131-11-3	Dimethylphthalate	4.10	U	0.95	4.10	5.10	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP100-20241114		SDG No.:	P4868	
Lab Sample ID:	P4868-01		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	980	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140493.D	1	11/16/24 08:15	11/20/24 11:49	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
208-96-8	Acenaphthylene	4.10	U	1.10	4.10	5.10	ug/L
606-20-2	2,6-Dinitrotoluene	4.10	U	1.30	4.10	5.10	ug/L
99-09-2	3-Nitroaniline	4.10	U	1.40	4.10	5.10	ug/L
83-32-9	Acenaphthene	4.10	U	0.83	4.10	5.10	ug/L
51-28-5	2,4-Dinitrophenol	8.20	U	6.60	8.20	10.2	ug/L
100-02-7	4-Nitrophenol	8.20	U	2.00	8.20	10.2	ug/L
132-64-9	Dibenzofuran	4.10	U	0.95	4.10	5.10	ug/L
121-14-2	2,4-Dinitrotoluene	4.10	U	1.60	4.10	5.10	ug/L
84-66-2	Diethylphthalate	4.10	U	1.10	4.10	5.10	ug/L
7005-72-3	4-Chlorophenyl-phenylether	4.10	U	1.00	4.10	5.10	ug/L
86-73-7	Fluorene	4.10	U	0.98	4.10	5.10	ug/L
100-01-6	4-Nitroaniline	4.10	U	2.10	4.10	5.10	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	8.20	U	3.10	8.20	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	4.10	U	0.91	4.10	5.10	ug/L
101-55-3	4-Bromophenyl-phenylether	4.10	U	0.97	4.10	5.10	ug/L
118-74-1	Hexachlorobenzene	4.10	U	1.20	4.10	5.10	ug/L
1912-24-9	Atrazine	4.10	U	1.30	4.10	5.10	ug/L
87-86-5	Pentachlorophenol	8.20	U	1.90	8.20	10.2	ug/L
85-01-8	Phenanthrene	4.10	U	0.91	4.10	5.10	ug/L
120-12-7	Anthracene	4.10	U	1.10	4.10	5.10	ug/L
86-74-8	Carbazole	4.10	U	1.20	4.10	5.10	ug/L
84-74-2	Di-n-butylphthalate	4.10	U	1.50	4.10	5.10	ug/L
206-44-0	Fluoranthene	4.10	U	1.30	4.10	5.10	ug/L
129-00-0	Pyrene	4.10	U	1.10	4.10	5.10	ug/L
85-68-7	Butylbenzylphthalate	4.10	U	2.10	4.10	5.10	ug/L
91-94-1	3,3-Dichlorobenzidine	8.20	U	1.30	8.20	10.2	ug/L
56-55-3	Benzo(a)anthracene	4.10	U	0.96	4.10	5.10	ug/L
218-01-9	Chrysene	4.10	U	0.88	4.10	5.10	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	4.10	U	1.90	4.10	5.10	ug/L
117-84-0	Di-n-octyl phthalate	8.20	U	2.60	8.20	10.2	ug/L
205-99-2	Benzo(b)fluoranthene	4.10	U	1.20	4.10	5.10	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP100-20241114		SDG No.:	P4868	
Lab Sample ID:	P4868-01		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	980	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140493.D	1	11/16/24 08:15	11/20/24 11:49	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	4.10	U	1.20	4.10	5.10	ug/L
50-32-8	Benzo(a)pyrene	4.10	U	1.70	4.10	5.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	4.10	U	1.00	4.10	5.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	4.10	U	1.20	4.10	5.10	ug/L
191-24-2	Benzo(g,h,i)perylene	4.10	U	1.20	4.10	5.10	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	4.10	U	1.10	4.10	5.10	ug/L
123-91-1	1,4-Dioxane	9.80		1.30	4.10	5.10	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	4.10	U	0.81	4.10	5.10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	68.8		19 - 119		46%	SPK: 150
13127-88-3	Phenol-d6	41.6		10 - 130		28%	SPK: 150
4165-60-0	Nitrobenzene-d5	104		44 - 120		104%	SPK: 100
321-60-8	2-Fluorobiphenyl	102		44 - 119		102%	SPK: 100
118-79-6	2,4,6-Tribromophenol	160		43 - 140		107%	SPK: 150
1718-51-0	Terphenyl-d14	103		50 - 134		103%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	115000	6.875				
1146-65-2	Naphthalene-d8	439000	8.151				
15067-26-2	Acenaphthene-d10	246000	9.91				
1517-22-2	Phenanthrene-d10	461000	11.398				
1719-03-5	Chrysene-d12	282000	14.051				
1520-96-3	Perylene-d12	215000	15.556				
TENTATIVE IDENTIFIED COMPOUNDS							
000994-05-8	Butane, 2-methoxy-2-methyl-	110	J			2.14	ug/L
000079-01-6	Trichloroethylene	180	J			2.52	ug/L
000141-79-7	3-Penten-2-one, 4-methyl-	8.00	A			4.47	ug/L
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	6.10	AB			5.09	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24
Project:	CTO WE13		Date Received:	11/14/24
Client Sample ID:	RW5-SP100-20241114		SDG No.:	P4868
Lab Sample ID:	P4868-01		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	980	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140493.D	1	11/16/24 08:15	11/20/24 11:49	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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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:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP303-20241114		SDG No.:	P4868	
Lab Sample ID:	P4868-03		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140494.D	1	11/16/24 08:15	11/20/24 12:15	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	8.00	U	4.00	8.00	10.0	ug/L
108-95-2	Phenol	4.00	U	0.93	4.00	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	4.00	U	1.20	4.00	5.00	ug/L
95-57-8	2-Chlorophenol	4.00	U	0.71	4.00	5.00	ug/L
95-48-7	2-Methylphenol	4.00	U	1.10	4.00	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	4.00	U	1.40	4.00	5.00	ug/L
98-86-2	Acetophenone	4.00	U	1.10	4.00	5.00	ug/L
65794-96-9	3+4-Methylphenols	8.00	U	1.20	8.00	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	2.50	U	1.50	2.50	2.50	ug/L
67-72-1	Hexachloroethane	4.00	U	1.00	4.00	5.00	ug/L
98-95-3	Nitrobenzene	4.00	U	1.30	4.00	5.00	ug/L
78-59-1	Isophorone	4.00	U	1.10	4.00	5.00	ug/L
88-75-5	2-Nitrophenol	4.00	U	2.00	4.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	4.00	U	1.50	4.00	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	4.00	U	1.00	4.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	4.00	U	0.88	4.00	5.00	ug/L
91-20-3	Naphthalene	4.00	U	1.00	4.00	5.00	ug/L
106-47-8	4-Chloroaniline	4.00	U	1.30	4.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	4.00	U	1.30	4.00	5.00	ug/L
105-60-2	Caprolactam	8.00	U	1.70	8.00	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	4.00	U	0.84	4.00	5.00	ug/L
91-57-6	2-Methylnaphthalene	4.00	U	1.10	4.00	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	8.00	UQ	5.00	8.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	4.00	U	0.89	4.00	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	4.00	U	1.00	4.00	5.00	ug/L
92-52-4	1,1-Biphenyl	4.00	U	0.91	4.00	5.00	ug/L
91-58-7	2-Chloronaphthalene	4.00	U	0.97	4.00	5.00	ug/L
88-74-4	2-Nitroaniline	4.00	U	1.40	4.00	5.00	ug/L
131-11-3	Dimethylphthalate	4.00	U	0.93	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP303-20241114		SDG No.:	P4868	
Lab Sample ID:	P4868-03		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140494.D	1	11/16/24 08:15	11/20/24 12:15	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
208-96-8	Acenaphthylene	4.00	U	1.00	4.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	4.00	U	1.20	4.00	5.00	ug/L
99-09-2	3-Nitroaniline	4.00	U	1.40	4.00	5.00	ug/L
83-32-9	Acenaphthene	4.00	U	0.81	4.00	5.00	ug/L
51-28-5	2,4-Dinitrophenol	8.00	U	6.40	8.00	10.0	ug/L
100-02-7	4-Nitrophenol	8.00	U	2.00	8.00	10.0	ug/L
132-64-9	Dibenzofuran	4.00	U	0.93	4.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	4.00	U	1.50	4.00	5.00	ug/L
84-66-2	Diethylphthalate	4.00	U	1.00	4.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	4.00	U	0.98	4.00	5.00	ug/L
86-73-7	Fluorene	4.00	U	0.96	4.00	5.00	ug/L
100-01-6	4-Nitroaniline	4.00	U	2.00	4.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	8.00	U	3.10	8.00	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	4.00	U	0.89	4.00	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	4.00	U	0.95	4.00	5.00	ug/L
118-74-1	Hexachlorobenzene	4.00	U	1.10	4.00	5.00	ug/L
1912-24-9	Atrazine	4.00	U	1.30	4.00	5.00	ug/L
87-86-5	Pentachlorophenol	8.00	U	1.90	8.00	10.0	ug/L
85-01-8	Phenanthrene	4.00	U	0.89	4.00	5.00	ug/L
120-12-7	Anthracene	4.00	U	1.10	4.00	5.00	ug/L
86-74-8	Carbazole	4.00	U	1.20	4.00	5.00	ug/L
84-74-2	Di-n-butylphthalate	4.00	U	1.50	4.00	5.00	ug/L
206-44-0	Fluoranthene	4.00	U	1.30	4.00	5.00	ug/L
129-00-0	Pyrene	4.00	U	1.10	4.00	5.00	ug/L
85-68-7	Butylbenzylphthalate	4.00	U	2.10	4.00	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	8.00	U	1.30	8.00	10.0	ug/L
56-55-3	Benzo(a)anthracene	4.00	U	0.94	4.00	5.00	ug/L
218-01-9	Chrysene	4.00	U	0.86	4.00	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	4.00	U	1.90	4.00	5.00	ug/L
117-84-0	Di-n-octyl phthalate	8.00	U	2.50	8.00	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	4.00	U	1.10	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP303-20241114		SDG No.:	P4868	
Lab Sample ID:	P4868-03		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140494.D	1	11/16/24 08:15	11/20/24 12:15	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	4.00	U	1.20	4.00	5.00	ug/L
50-32-8	Benzo(a)pyrene	4.00	U	1.70	4.00	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	4.00	U	1.00	4.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	4.00	U	1.20	4.00	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	4.00	U	1.20	4.00	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	4.00	U	1.10	4.00	5.00	ug/L
123-91-1	1,4-Dioxane	4.00	U	1.30	4.00	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	4.00	U	0.79	4.00	5.00	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	65.9		19 - 119		44%	SPK: 150
13127-88-3	Phenol-d6	38.4		10 - 130		26%	SPK: 150
4165-60-0	Nitrobenzene-d5	104		44 - 120		104%	SPK: 100
321-60-8	2-Fluorobiphenyl	110		44 - 119		110%	SPK: 100
118-79-6	2,4,6-Tribromophenol	167		43 - 140		111%	SPK: 150
1718-51-0	Terphenyl-d14	108		50 - 134		108%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	111000	6.875				
1146-65-2	Naphthalene-d8	422000	8.151				
15067-26-2	Acenaphthene-d10	217000	9.904				
1517-22-2	Phenanthrene-d10	429000	11.398				
1719-03-5	Chrysene-d12	253000	14.051				
1520-96-3	Perylene-d12	113000	15.563				
TENTATIVE IDENTIFIED COMPOUNDS							
000994-05-8	Butane, 2-methoxy-2-methyl-	87.0	J			2.13	ug/L
000141-79-7	3-Penten-2-one, 4-methyl-	30.1	A			4.47	ug/L
000541-05-9	Cyclotrisiloxane, hexamethyl-	2.00	J			4.74	ug/L
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	3.30	AB			5.09	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24
Project:	CTO WE13		Date Received:	11/14/24
Client Sample ID:	RW5-SP303-20241114		SDG No.:	P4868
Lab Sample ID:	P4868-03		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140494.D	1	11/16/24 08:15	11/20/24 12:15	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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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:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP303-20241114RE		SDG No.:	P4868	
Lab Sample ID:	P4868-03RE		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140498.D	1	11/16/24 08:15	11/20/24 14:01	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	8.00	U	4.00	8.00	10.0	ug/L
108-95-2	Phenol	4.00	U	0.93	4.00	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	4.00	U	1.20	4.00	5.00	ug/L
95-57-8	2-Chlorophenol	4.00	U	0.71	4.00	5.00	ug/L
95-48-7	2-Methylphenol	4.00	U	1.10	4.00	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	4.00	U	1.40	4.00	5.00	ug/L
98-86-2	Acetophenone	4.00	U	1.10	4.00	5.00	ug/L
65794-96-9	3+4-Methylphenols	8.00	U	1.20	8.00	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	2.50	U	1.50	2.50	2.50	ug/L
67-72-1	Hexachloroethane	4.00	U	1.00	4.00	5.00	ug/L
98-95-3	Nitrobenzene	4.00	U	1.30	4.00	5.00	ug/L
78-59-1	Isophorone	4.00	U	1.10	4.00	5.00	ug/L
88-75-5	2-Nitrophenol	4.00	U	2.00	4.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	4.00	U	1.50	4.00	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	4.00	U	1.00	4.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	4.00	U	0.88	4.00	5.00	ug/L
91-20-3	Naphthalene	4.00	U	1.00	4.00	5.00	ug/L
106-47-8	4-Chloroaniline	4.00	U	1.30	4.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	4.00	U	1.30	4.00	5.00	ug/L
105-60-2	Caprolactam	8.00	U	1.70	8.00	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	4.00	U	0.84	4.00	5.00	ug/L
91-57-6	2-Methylnaphthalene	4.00	U	1.10	4.00	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	8.00	UQ	5.00	8.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	4.00	U	0.89	4.00	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	4.00	U	1.00	4.00	5.00	ug/L
92-52-4	1,1-Biphenyl	4.00	U	0.91	4.00	5.00	ug/L
91-58-7	2-Chloronaphthalene	4.00	U	0.97	4.00	5.00	ug/L
88-74-4	2-Nitroaniline	4.00	U	1.40	4.00	5.00	ug/L
131-11-3	Dimethylphthalate	4.00	U	0.93	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP303-20241114RE		SDG No.:	P4868	
Lab Sample ID:	P4868-03RE		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140498.D	1	11/16/24 08:15	11/20/24 14:01	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
208-96-8	Acenaphthylene	4.00	U	1.00	4.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	4.00	U	1.20	4.00	5.00	ug/L
99-09-2	3-Nitroaniline	4.00	U	1.40	4.00	5.00	ug/L
83-32-9	Acenaphthene	4.00	U	0.81	4.00	5.00	ug/L
51-28-5	2,4-Dinitrophenol	8.00	U	6.40	8.00	10.0	ug/L
100-02-7	4-Nitrophenol	8.00	U	2.00	8.00	10.0	ug/L
132-64-9	Dibenzofuran	4.00	U	0.93	4.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	4.00	U	1.50	4.00	5.00	ug/L
84-66-2	Diethylphthalate	4.00	U	1.00	4.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	4.00	U	0.98	4.00	5.00	ug/L
86-73-7	Fluorene	4.00	U	0.96	4.00	5.00	ug/L
100-01-6	4-Nitroaniline	4.00	U	2.00	4.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	8.00	U	3.10	8.00	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	4.00	U	0.89	4.00	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	4.00	U	0.95	4.00	5.00	ug/L
118-74-1	Hexachlorobenzene	4.00	U	1.10	4.00	5.00	ug/L
1912-24-9	Atrazine	4.00	U	1.30	4.00	5.00	ug/L
87-86-5	Pentachlorophenol	8.00	U	1.90	8.00	10.0	ug/L
85-01-8	Phenanthrene	4.00	U	0.89	4.00	5.00	ug/L
120-12-7	Anthracene	4.00	U	1.10	4.00	5.00	ug/L
86-74-8	Carbazole	4.00	U	1.20	4.00	5.00	ug/L
84-74-2	Di-n-butylphthalate	4.00	U	1.50	4.00	5.00	ug/L
206-44-0	Fluoranthene	4.00	U	1.30	4.00	5.00	ug/L
129-00-0	Pyrene	4.00	U	1.10	4.00	5.00	ug/L
85-68-7	Butylbenzylphthalate	4.00	U	2.10	4.00	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	8.00	U	1.30	8.00	10.0	ug/L
56-55-3	Benzo(a)anthracene	4.00	U	0.94	4.00	5.00	ug/L
218-01-9	Chrysene	4.00	U	0.86	4.00	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	4.00	U	1.90	4.00	5.00	ug/L
117-84-0	Di-n-octyl phthalate	8.00	U	2.50	8.00	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	4.00	U	1.10	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/14/24	
Project:	CTO WE13		Date Received:	11/14/24	
Client Sample ID:	RW5-SP303-20241114RE		SDG No.:	P4868	
Lab Sample ID:	P4868-03RE		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140498.D	1	11/16/24 08:15	11/20/24 14:01	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	4.00	U	1.20	4.00	5.00	ug/L
50-32-8	Benzo(a)pyrene	4.00	U	1.70	4.00	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	4.00	U	1.00	4.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	4.00	U	1.20	4.00	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	4.00	U	1.20	4.00	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	4.00	U	1.10	4.00	5.00	ug/L
123-91-1	1,4-Dioxane	4.00	U	1.30	4.00	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	4.00	U	0.79	4.00	5.00	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	65.8		19 - 119		44%	SPK: 150
13127-88-3	Phenol-d6	36.9		10 - 130		25%	SPK: 150
4165-60-0	Nitrobenzene-d5	106		44 - 120		106%	SPK: 100
321-60-8	2-Fluorobiphenyl	120	*	44 - 119		120%	SPK: 100
118-79-6	2,4,6-Tribromophenol	177		43 - 140		118%	SPK: 150
1718-51-0	Terphenyl-d14	120		50 - 134		120%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	108000	6.869				
1146-65-2	Naphthalene-d8	402000	8.151				
15067-26-2	Acenaphthene-d10	186000	9.904				
1517-22-2	Phenanthrene-d10	384000	11.398				
1719-03-5	Chrysene-d12	211000	14.039				
1520-96-3	Perylene-d12	81300	15.533				

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.: P4868

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4868-01	RW5-SP100-20241114	2-Fluorophenol	150	68.8	46		19	119
		Phenol-d6	150	41.6	28		10	130
		Nitrobenzene-d5	100	104	104		44	120
		2-Fluorobiphenyl	100	102	102		44	119
		2,4,6-Tribromophenol	150	160	107		43	140
		Terphenyl-d14	100	103	103		50	134
P4868-03	RW5-SP303-20241114	2-Fluorophenol	150	65.9	44		19	119
		Phenol-d6	150	38.4	26		10	130
		Nitrobenzene-d5	100	104	104		44	120
		2-Fluorobiphenyl	100	110	110		44	119
		2,4,6-Tribromophenol	150	167	111		43	140
		Terphenyl-d14	100	108	108		50	134
P4868-03RE	RW5-SP303-20241114RE	2-Fluorophenol	150	65.8	44		19	119
		Phenol-d6	150	36.9	25		10	130
		Nitrobenzene-d5	100	106	106		44	120
		2-Fluorobiphenyl	100	120	120	*	44	119
		2,4,6-Tribromophenol	150	177	118		43	140
		Terphenyl-d14	100	120	120		50	134
PB165039BL	PB165039BL	2-Fluorophenol	150	125	83		19	119
		Phenol-d6	150	120	80		10	130
		Nitrobenzene-d5	100	86.8	87		44	120
		2-Fluorobiphenyl	100	90.2	90		44	119
		2,4,6-Tribromophenol	150	128	85		43	140
		Terphenyl-d14	100	87.1	87		50	134
PB165039BS	PB165039BS	2-Fluorophenol	150	121	81		19	119
		Phenol-d6	150	117	78		10	130
		Nitrobenzene-d5	100	83.1	83		44	120
		2-Fluorobiphenyl	100	84.5	84		44	119
		2,4,6-Tribromophenol	150	130	86		43	140
		Terphenyl-d14	100	94.8	95		50	134
PB165039BSD	PB165039BSD	2-Fluorophenol	150	121	81		19	119
		Phenol-d6	150	117	78		10	130
		Nitrobenzene-d5	100	82.7	83		44	120
		2-Fluorobiphenyl	100	85.6	86		44	119
		2,4,6-Tribromophenol	150	131	87		43	140
		Terphenyl-d14	100	93.3	93		50	134

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4868

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270E

DataFile: BF140490.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB165039BS	Benzaldehyde	50	38.4	ug/L	77				10	161	
	Phenol	50	43.2	ug/L	86				10	132	
	bis(2-Chloroethyl)ether	50	43.6	ug/L	87				43	118	
	2-Chlorophenol	50	45.4	ug/L	91				38	117	
	2-Methylphenol	50	43.6	ug/L	87				30	117	
	2,2-oxybis(1-Chloropropane)	50	41.3	ug/L	83				37	130	
	Acetophenone	50	42.4	ug/L	85				46	118	
	3+4-Methylphenols	50	43.8	ug/L	88				29	110	
	N-Nitroso-di-n-propylamine	50	42.2	ug/L	84				49	119	
	Hexachloroethane	50	42.7	ug/L	85				21	115	
	Nitrobenzene	50	41.1	ug/L	82				45	121	
	Isophorone	50	43.3	ug/L	87				42	124	
	2-Nitrophenol	50	44.7	ug/L	89				47	123	
	2,4-Dimethylphenol	50	54.0	ug/L	108				31	124	
	bis(2-Chloroethoxy)methane	50	43.3	ug/L	87				48	120	
	2,4-Dichlorophenol	50	44.8	ug/L	90				47	121	
	Naphthalene	50	42.9	ug/L	86				40	121	
	4-Chloroaniline	50	22.7	ug/L	45				33	117	
	Hexachlorobutadiene	50	42.5	ug/L	85				22	124	
	Caprolactam	50	44.1	ug/L	88				10	161	
	4-Chloro-3-methylphenol	50	44.8	ug/L	90				52	119	
	2-Methylnaphthalene	50	43.9	ug/L	88				40	121	
	Hexachlorocyclopentadiene	100	160	ug/L	160		*		10	155	
	2,4,6-Trichlorophenol	50	44.1	ug/L	88				50	125	
	2,4,5-Trichlorophenol	50	42.6	ug/L	85				53	123	
	1,1-Biphenyl	50	42.8	ug/L	86				49	115	
	2-Chloronaphthalene	50	41.9	ug/L	84				40	116	
	2-Nitroaniline	50	43.6	ug/L	87				55	127	
	Dimethylphthalate	50	44.1	ug/L	88				45	127	
	Acenaphthylene	50	46.2	ug/L	92				41	130	
	2,6-Dinitrotoluene	50	42.9	ug/L	86				57	124	
	3-Nitroaniline	50	28.7	ug/L	57				41	128	
	Acenaphthene	50	49.2	ug/L	98				47	122	
	2,4-Dinitrophenol	100	89.3	ug/L	89				23	143	
	4-Nitrophenol	100	81.6	ug/L	82				10	161	
	Dibenzofuran	50	44.2	ug/L	88				53	118	
	2,4-Dinitrotoluene	50	43.1	ug/L	86				57	128	
	Diethylphthalate	50	43.1	ug/L	86				56	125	
	4-Chlorophenyl-phenylether	50	43.3	ug/L	87				53	121	
	Fluorene	50	43.3	ug/L	87				52	124	
	4-Nitroaniline	50	41.9	ug/L	84				35	120	
	4,6-Dinitro-2-methylphenol	50	47.3	ug/L	95				44	137	
	N-Nitrosodiphenylamine	50	44.9	ug/L	90				51	123	
	4-Bromophenyl-phenylether	50	44.1	ug/L	88				55	124	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4868

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270E DataFile: BF140490.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB165039BS	Hexachlorobenzene	50	44.2	ug/L	88				53	125	
	Atrazine	50	49.5	ug/L	99				44	142	
	Pentachlorophenol	100	84.3	ug/L	84				35	138	
	Phenanthrene	50	44.5	ug/L	89				59	120	
	Anthracene	50	46.9	ug/L	94				57	123	
	Carbazole	50	43.6	ug/L	87				60	122	
	Di-n-butylphthalate	50	44.3	ug/L	89				59	127	
	Fluoranthene	50	43.9	ug/L	88				57	128	
	Pyrene	50	46.9	ug/L	94				57	126	
	Butylbenzylphthalate	50	48.3	ug/L	97				53	134	
	3,3-Dichlorobenzidine	50	28.7	ug/L	57				27	129	
	Benzo(a)anthracene	50	46.9	ug/L	94				58	125	
	Chrysene	50	43.9	ug/L	88				59	123	
	bis(2-Ethylhexyl)phthalate	50	47.0	ug/L	94				55	135	
	Di-n-octyl phthalate	50	44.6	ug/L	89				51	140	
	Benzo(b)fluoranthene	50	42.6	ug/L	85				53	131	
	Benzo(k)fluoranthene	50	46.2	ug/L	92				57	129	
	Benzo(a)pyrene	50	48.8	ug/L	98				54	128	
	Indeno(1,2,3-cd)pyrene	50	50.5	ug/L	101				52	134	
	Dibenz(a,h)anthracene	50	50.1	ug/L	100				51	134	
	Benzo(g,h,i)perylene	50	46.4	ug/L	93				50	134	
	1,2,4,5-Tetrachlorobenzene	50	42.9	ug/L	86				35	121	
	1,4-Dioxane	50	37.4	ug/L	75				70	130	
	2,3,4,6-Tetrachlorophenol	50	45.2	ug/L	90				50	128	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4868

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270E

DataFile: BF140491.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD		Limits		RPD
							Qual	Qual	Low	High	
PB165039BSD	Benzaldehyde	50	38.3	ug/L	77	0			10	161	20
	Phenol	50	42.4	ug/L	85	2			10	132	20
	bis(2-Chloroethyl)ether	50	44.1	ug/L	88	1			43	118	20
	2-Chlorophenol	50	44.9	ug/L	90	1			38	117	20
	2-Methylphenol	50	43.3	ug/L	87	1			30	117	20
	2,2-oxybis(1-Chloropropane)	50	41.3	ug/L	83	0			37	130	20
	Acetophenone	50	42.8	ug/L	86	1			46	118	20
	3+4-Methylphenols	50	43.9	ug/L	88	0			29	110	20
	N-Nitroso-di-n-propylamine	50	41.9	ug/L	84	1			49	119	20
	Hexachloroethane	50	42.1	ug/L	84	1			21	115	20
	Nitrobenzene	50	41.3	ug/L	83	0			45	121	20
	Isophorone	50	43.3	ug/L	87	0			42	124	20
	2-Nitrophenol	50	44.9	ug/L	90	0			47	123	20
	2,4-Dimethylphenol	50	53.1	ug/L	106	2			31	124	20
	bis(2-Chloroethoxy)methane	50	42.6	ug/L	85	2			48	120	20
	2,4-Dichlorophenol	50	44.8	ug/L	90	0			47	121	20
	Naphthalene	50	43.0	ug/L	86	0			40	121	20
	4-Chloroaniline	50	20.2	ug/L	40	12			33	117	20
	Hexachlorobutadiene	50	41.8	ug/L	84	2			22	124	20
	Caprolactam	50	43.2	ug/L	86	2			10	161	20
	4-Chloro-3-methylphenol	50	45.5	ug/L	91	2			52	119	20
	2-Methylnaphthalene	50	43.6	ug/L	87	1			40	121	20
	Hexachlorocyclopentadiene	100	160	ug/L	160	0	*		10	155	20
	2,4,6-Trichlorophenol	50	44.5	ug/L	89	1			50	125	20
	2,4,5-Trichlorophenol	50	42.9	ug/L	86	1			53	123	20
	1,1-Biphenyl	50	43.3	ug/L	87	1			49	115	20
	2-Chloronaphthalene	50	42.6	ug/L	85	2			40	116	20
	2-Nitroaniline	50	44.7	ug/L	89	2			55	127	20
	Dimethylphthalate	50	45.1	ug/L	90	2			45	127	20
	Acenaphthylene	50	46.8	ug/L	94	1			41	130	20
	2,6-Dinitrotoluene	50	43.4	ug/L	87	1			57	124	20
	3-Nitroaniline	50	28.0	ug/L	56	2			41	128	20
	Acenaphthene	50	49.1	ug/L	98	0			47	122	20
	2,4-Dinitrophenol	100	90.3	ug/L	90	1			23	143	20
	4-Nitrophenol	100	83.4	ug/L	83	2			10	161	20
	Dibenzofuran	50	44.5	ug/L	89	1			53	118	20
	2,4-Dinitrotoluene	50	44.7	ug/L	89	4			57	128	20
	Diethylphthalate	50	44.2	ug/L	88	3			56	125	20
	4-Chlorophenyl-phenylether	50	44.0	ug/L	88	2			53	121	20
	Fluorene	50	44.3	ug/L	89	2			52	124	20
	4-Nitroaniline	50	43.2	ug/L	86	3			35	120	20
	4,6-Dinitro-2-methylphenol	50	47.9	ug/L	96	1			44	137	20
	N-Nitrosodiphenylamine	50	45.6	ug/L	91	2			51	123	20
	4-Bromophenyl-phenylether	50	44.6	ug/L	89	1			55	124	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4868

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270E DataFile: BF140491.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD		Limits		RPD
							Qual	Qual	Low	High	
PB165039BSD	Hexachlorobenzene	50	44.2	ug/L	88	0			53	125	20
	Atrazine	50	50.0	ug/L	100	1			44	142	20
	Pentachlorophenol	100	84.5	ug/L	85	0			35	138	20
	Phenanthrene	50	45.0	ug/L	90	1			59	120	20
	Anthracene	50	47.6	ug/L	95	1			57	123	20
	Carbazole	50	44.4	ug/L	89	2			60	122	20
	Di-n-butylphthalate	50	44.4	ug/L	89	0			59	127	20
	Fluoranthene	50	44.4	ug/L	89	1			57	128	20
	Pyrene	50	46.6	ug/L	93	1			57	126	20
	Butylbenzylphthalate	50	47.9	ug/L	96	1			53	134	20
	3,3-Dichlorobenzidine	50	29.0	ug/L	58	1			27	129	20
	Benzo(a)anthracene	50	44.8	ug/L	90	5			58	125	20
	Chrysene	50	45.5	ug/L	91	4			59	123	20
	bis(2-Ethylhexyl)phthalate	50	47.2	ug/L	94	0			55	135	20
	Di-n-octyl phthalate	50	45.1	ug/L	90	1			51	140	20
	Benzo(b)fluoranthene	50	42.5	ug/L	85	0			53	131	20
	Benzo(k)fluoranthene	50	46.4	ug/L	93	0			57	129	20
	Benzo(a)pyrene	50	48.7	ug/L	97	0			54	128	20
	Indeno(1,2,3-cd)pyrene	50	49.1	ug/L	98	3			52	134	20
	Dibenz(a,h)anthracene	50	48.7	ug/L	97	3			51	134	20
	Benzo(g,h,i)perylene	50	45.0	ug/L	90	3			50	134	20
	1,2,4,5-Tetrachlorobenzene	50	43.4	ug/L	87	1			35	121	20
	1,4-Dioxane	50	37.8	ug/L	76	1			70	130	20
	2,3,4,6-Tetrachlorophenol	50	47.2	ug/L	94	4			50	128	20

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165039BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4868

SAS No.: P4868 SDG NO.: P4868

Lab File ID: BF140489.D

Lab Sample ID: PB165039BL

Instrument ID: BNA_F

Date Extracted: 11/16/2024

Matrix: (soil/water) Water

Date Analyzed: 11/20/2024

Level: (low/med) LOW

Time Analyzed: 09:57

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB165039BS	PB165039BS	BF140490.D	11/20/2024
PB165039BSD	PB165039BSD	BF140491.D	11/20/2024
RW5-SP100-20241114	P4868-01	BF140493.D	11/20/2024
RW5-SP303-20241114	P4868-03	BF140494.D	11/20/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4868 SDG NO.: P4868

Lab File ID: BF140331.D

DFTPP Injection Date: 11/13/2024

Instrument ID: BNA_F

DFTPP Injection Time: 08:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	36.9
68	Less than 2.0% of mass 69	0.7 (1.8) 1
69	Mass 69 relative abundance	38
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.6
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	6.4
275	10.0 - 60.0% of mass 198	28.3
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	14
442	Greater than 50% of mass 198	88.6
443	15.0 - 24.0% of mass 442	16.7 (18.8) 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
SSTDICC2.5	SSTDICC2.5	BF140332.D	11/13/2024	09:01
SSTDICC005	SSTDICC005	BF140333.D	11/13/2024	09:27
SSTDICC010	SSTDICC010	BF140334.D	11/13/2024	09:53
SSTDICC020	SSTDICC020	BF140335.D	11/13/2024	10:29
SSTDICC050	SSTDICC050	BF140337.D	11/13/2024	11:21
SSTDICC060	SSTDICC060	BF140338.D	11/13/2024	11:47
SSTDICC080	SSTDICC080	BF140339.D	11/13/2024	12:13
SSTDICCC040	SSTDICCC040	BF140340.D	11/13/2024	12:48

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4868 SDG NO.: P4868

Lab File ID: BF140487.D

DFTPP Injection Date: 11/20/2024

Instrument ID: BNA_F

DFTPP Injection Time: 09:04

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	34.1
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	35.9
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.2
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
275	10.0 - 60.0% of mass 198	29
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.3 (18.3) 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
SSTDCCC040	SSTDCCC040	BF140488.D	11/20/2024	09:31
PB165039BL	PB165039BL	BF140489.D	11/20/2024	09:57
PB165039BS	PB165039BS	BF140490.D	11/20/2024	10:23
PB165039BSD	PB165039BSD	BF140491.D	11/20/2024	10:49
RW5-SP100-20241114	P4868-01	BF140493.D	11/20/2024	11:49
RW5-SP303-20241114	P4868-03	BF140494.D	11/20/2024	12:15
RW5-SP303-20241114RE	P4868-03RE	BF140498.D	11/20/2024	14:01
SSTDCCC040EC	SSTDCCC040	BF140499.D	11/20/2024	14:34

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG NO.: P4868

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/20/2024

Lab File ID: BF140488.D Time Analyzed: 09:31

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	132364	6.875	490485	8.16	273054	9.92
UPPER LIMIT	264728	7.375	980970	8.657	546108	10.416
LOWER LIMIT	66182	6.375	245243	7.657	136527	9.416
EPA SAMPLE NO.						
01 PB165039BL	125559	6.88	478277	8.15	268353	9.91
02 PB165039BS	123122	6.88	469130	8.16	266786	9.91
03 PB165039BSD	121736	6.88	462447	8.15	259407	9.91
04 RW5-SP100-20241114	115090	6.88	438706	8.15	246450	9.91
05 RW5-SP303-20241114	111180	6.88	421980	8.15	217249	9.90
06 RW5-SP303-20241114RE	107774	6.87	401651	8.15	185909	9.90

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: CHEMTECH

Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG NO.: P4868

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/20/2024

Lab File ID: BF140488.D Time Analyzed: 09:31

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	510213	11.404	268548	14.051	246006	15.539
UPPER LIMIT	1020430	11.904	537096	14.551	492012	16.039
LOWER LIMIT	255107	10.904	134274	13.551	123003	15.039
EPA SAMPLE NO.						
01 PB165039BL	515282	11.40	344131	14.06	286700	15.58
02 PB165039BS	499057	11.40	288313	14.06	231323	15.57
03 PB165039BSD	492347	11.40	292939	14.06	237975	15.57
04 RW5-SP100-20241114	461031	11.40	281660	14.05	215486	15.56
05 RW5-SP303-20241114	429469	11.40	252845	14.05	112601 *	15.56
06 RW5-SP303-20241114RE	383896	11.40	211068	14.04	81264 *	15.53

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:	CTO WE13		Date Received:	
Client Sample ID:	PB165039BL		SDG No.:	P4868
Lab Sample ID:	PB165039BL		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140489.D	1	11/16/24 08:15	11/20/24 09:57	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	8.00	U	4.00	8.00	10.0	ug/L
108-95-2	Phenol	4.00	U	0.93	4.00	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	4.00	U	1.20	4.00	5.00	ug/L
95-57-8	2-Chlorophenol	4.00	U	0.71	4.00	5.00	ug/L
95-48-7	2-Methylphenol	4.00	U	1.10	4.00	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	4.00	U	1.40	4.00	5.00	ug/L
98-86-2	Acetophenone	4.00	U	1.10	4.00	5.00	ug/L
65794-96-9	3+4-Methylphenols	8.00	U	1.20	8.00	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	2.50	U	1.50	2.50	2.50	ug/L
67-72-1	Hexachloroethane	4.00	U	1.00	4.00	5.00	ug/L
98-95-3	Nitrobenzene	4.00	U	1.30	4.00	5.00	ug/L
78-59-1	Isophorone	4.00	U	1.10	4.00	5.00	ug/L
88-75-5	2-Nitrophenol	4.00	U	2.00	4.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	4.00	U	1.50	4.00	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	4.00	U	1.00	4.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	4.00	U	0.88	4.00	5.00	ug/L
91-20-3	Naphthalene	4.00	U	1.00	4.00	5.00	ug/L
106-47-8	4-Chloroaniline	4.00	U	1.30	4.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	4.00	U	1.30	4.00	5.00	ug/L
105-60-2	Caprolactam	8.00	U	1.70	8.00	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	4.00	U	0.84	4.00	5.00	ug/L
91-57-6	2-Methylnaphthalene	4.00	U	1.10	4.00	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	8.00	U	5.00	8.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	4.00	U	0.89	4.00	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	4.00	U	1.00	4.00	5.00	ug/L
92-52-4	1,1-Biphenyl	4.00	U	0.91	4.00	5.00	ug/L
91-58-7	2-Chloronaphthalene	4.00	U	0.97	4.00	5.00	ug/L
88-74-4	2-Nitroaniline	4.00	U	1.40	4.00	5.00	ug/L
131-11-3	Dimethylphthalate	4.00	U	0.93	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	PB165039BL		SDG No.:	P4868
Lab Sample ID:	PB165039BL		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140489.D	1	11/16/24 08:15	11/20/24 09:57	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
208-96-8	Acenaphthylene	4.00	U	1.00	4.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	4.00	U	1.20	4.00	5.00	ug/L
99-09-2	3-Nitroaniline	4.00	U	1.40	4.00	5.00	ug/L
83-32-9	Acenaphthene	4.00	U	0.81	4.00	5.00	ug/L
51-28-5	2,4-Dinitrophenol	8.00	U	6.40	8.00	10.0	ug/L
100-02-7	4-Nitrophenol	8.00	U	2.00	8.00	10.0	ug/L
132-64-9	Dibenzofuran	4.00	U	0.93	4.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	4.00	U	1.50	4.00	5.00	ug/L
84-66-2	Diethylphthalate	4.00	U	1.00	4.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	4.00	U	0.98	4.00	5.00	ug/L
86-73-7	Fluorene	4.00	U	0.96	4.00	5.00	ug/L
100-01-6	4-Nitroaniline	4.00	U	2.00	4.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	8.00	U	3.10	8.00	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	4.00	U	0.89	4.00	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	4.00	U	0.95	4.00	5.00	ug/L
118-74-1	Hexachlorobenzene	4.00	U	1.10	4.00	5.00	ug/L
1912-24-9	Atrazine	4.00	U	1.30	4.00	5.00	ug/L
87-86-5	Pentachlorophenol	8.00	U	1.90	8.00	10.0	ug/L
85-01-8	Phenanthrene	4.00	U	0.89	4.00	5.00	ug/L
120-12-7	Anthracene	4.00	U	1.10	4.00	5.00	ug/L
86-74-8	Carbazole	4.00	U	1.20	4.00	5.00	ug/L
84-74-2	Di-n-butylphthalate	4.00	U	1.50	4.00	5.00	ug/L
206-44-0	Fluoranthene	4.00	U	1.30	4.00	5.00	ug/L
129-00-0	Pyrene	4.00	U	1.10	4.00	5.00	ug/L
85-68-7	Butylbenzylphthalate	4.00	U	2.10	4.00	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	8.00	U	1.30	8.00	10.0	ug/L
56-55-3	Benzo(a)anthracene	4.00	U	0.94	4.00	5.00	ug/L
218-01-9	Chrysene	4.00	U	0.86	4.00	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	4.00	U	1.90	4.00	5.00	ug/L
117-84-0	Di-n-octyl phthalate	8.00	U	2.50	8.00	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	4.00	U	1.10	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB165039BL		SDG No.:	P4868	
Lab Sample ID:	PB165039BL		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140489.D	1	11/16/24 08:15	11/20/24 09:57	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	4.00	U	1.20	4.00	5.00	ug/L
50-32-8	Benzo(a)pyrene	4.00	U	1.70	4.00	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	4.00	U	1.00	4.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	4.00	U	1.20	4.00	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	4.00	U	1.20	4.00	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	4.00	U	1.10	4.00	5.00	ug/L
123-91-1	1,4-Dioxane	4.00	U	1.30	4.00	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	4.00	U	0.79	4.00	5.00	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	125		19 - 119		83%	SPK: 150
13127-88-3	Phenol-d6	120		10 - 130		80%	SPK: 150
4165-60-0	Nitrobenzene-d5	86.8		44 - 120		87%	SPK: 100
321-60-8	2-Fluorobiphenyl	90.2		44 - 119		90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	128		43 - 140		85%	SPK: 150
1718-51-0	Terphenyl-d14	87.1		50 - 134		87%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	126000	6.875				
1146-65-2	Naphthalene-d8	478000	8.151				
15067-26-2	Acenaphthene-d10	268000	9.91				
1517-22-2	Phenanthrene-d10	515000	11.398				
1719-03-5	Chrysene-d12	344000	14.063				
1520-96-3	Perylene-d12	287000	15.58				
TENTATIVE IDENTIFIED COMPOUNDS							
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.20	A			5.12	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	PB165039BL		SDG No.:	P4868
Lab Sample ID:	PB165039BL		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140489.D	1	11/16/24 08:15	11/20/24 09:57	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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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:	CTO WE13		Date Received:	
Client Sample ID:	PB165039BS		SDG No.:	P4868
Lab Sample ID:	PB165039BS		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140490.D	1	11/16/24 08:15	11/20/24 10:23	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	38.4		4.00	8.00	10.0	ug/L
108-95-2	Phenol	43.2		0.93	4.00	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	43.6		1.20	4.00	5.00	ug/L
95-57-8	2-Chlorophenol	45.4		0.71	4.00	5.00	ug/L
95-48-7	2-Methylphenol	43.6		1.10	4.00	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	41.3		1.40	4.00	5.00	ug/L
98-86-2	Acetophenone	42.4		1.10	4.00	5.00	ug/L
65794-96-9	3+4-Methylphenols	43.8		1.20	8.00	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	42.2		1.50	2.50	2.50	ug/L
67-72-1	Hexachloroethane	42.7		1.00	4.00	5.00	ug/L
98-95-3	Nitrobenzene	41.1		1.30	4.00	5.00	ug/L
78-59-1	Isophorone	43.3		1.10	4.00	5.00	ug/L
88-75-5	2-Nitrophenol	44.7		2.00	4.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	54.0		1.50	4.00	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	43.3		1.00	4.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	44.8		0.88	4.00	5.00	ug/L
91-20-3	Naphthalene	42.9		1.00	4.00	5.00	ug/L
106-47-8	4-Chloroaniline	22.7		1.30	4.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	42.5		1.30	4.00	5.00	ug/L
105-60-2	Caprolactam	44.1		1.70	8.00	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	44.8		0.84	4.00	5.00	ug/L
91-57-6	2-Methylnaphthalene	43.9		1.10	4.00	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	160	E	5.00	8.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	44.1		0.89	4.00	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	42.6		1.00	4.00	5.00	ug/L
92-52-4	1,1-Biphenyl	42.8		0.91	4.00	5.00	ug/L
91-58-7	2-Chloronaphthalene	41.9		0.97	4.00	5.00	ug/L
88-74-4	2-Nitroaniline	43.6		1.40	4.00	5.00	ug/L
131-11-3	Dimethylphthalate	44.1		0.93	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	PB165039BS		SDG No.:	P4868
Lab Sample ID:	PB165039BS		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140490.D	1	11/16/24 08:15	11/20/24 10:23	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
208-96-8	Acenaphthylene	46.2		1.00	4.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	42.9		1.20	4.00	5.00	ug/L
99-09-2	3-Nitroaniline	28.7		1.40	4.00	5.00	ug/L
83-32-9	Acenaphthene	49.2		0.81	4.00	5.00	ug/L
51-28-5	2,4-Dinitrophenol	89.3	E	6.40	8.00	10.0	ug/L
100-02-7	4-Nitrophenol	81.6	E	2.00	8.00	10.0	ug/L
132-64-9	Dibenzofuran	44.2		0.93	4.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	43.1		1.50	4.00	5.00	ug/L
84-66-2	Diethylphthalate	43.1		1.00	4.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	43.3		0.98	4.00	5.00	ug/L
86-73-7	Fluorene	43.3		0.96	4.00	5.00	ug/L
100-01-6	4-Nitroaniline	41.9		2.00	4.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	47.3		3.10	8.00	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	44.9		0.89	4.00	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	44.1		0.95	4.00	5.00	ug/L
118-74-1	Hexachlorobenzene	44.2		1.10	4.00	5.00	ug/L
1912-24-9	Atrazine	49.5		1.30	4.00	5.00	ug/L
87-86-5	Pentachlorophenol	84.3	E	1.90	8.00	10.0	ug/L
85-01-8	Phenanthrene	44.5		0.89	4.00	5.00	ug/L
120-12-7	Anthracene	46.9		1.10	4.00	5.00	ug/L
86-74-8	Carbazole	43.6		1.20	4.00	5.00	ug/L
84-74-2	Di-n-butylphthalate	44.3		1.50	4.00	5.00	ug/L
206-44-0	Fluoranthene	43.9		1.30	4.00	5.00	ug/L
129-00-0	Pyrene	46.9		1.10	4.00	5.00	ug/L
85-68-7	Butylbenzylphthalate	48.3		2.10	4.00	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	28.7		1.30	8.00	10.0	ug/L
56-55-3	Benzo(a)anthracene	46.9		0.94	4.00	5.00	ug/L
218-01-9	Chrysene	43.9		0.86	4.00	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	47.0		1.90	4.00	5.00	ug/L
117-84-0	Di-n-octyl phthalate	44.6		2.50	8.00	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	42.6		1.10	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB165039BS		SDG No.:	P4868	
Lab Sample ID:	PB165039BS		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140490.D	1	11/16/24 08:15	11/20/24 10:23	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	46.2		1.20	4.00	5.00	ug/L
50-32-8	Benzo(a)pyrene	48.8		1.70	4.00	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	50.5		1.00	4.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	50.1		1.20	4.00	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	46.4		1.20	4.00	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	42.9		1.10	4.00	5.00	ug/L
123-91-1	1,4-Dioxane	37.4		1.30	4.00	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	45.2		0.79	4.00	5.00	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	121		19 - 119		81%	SPK: 150
13127-88-3	Phenol-d6	117		10 - 130		78%	SPK: 150
4165-60-0	Nitrobenzene-d5	83.1		44 - 120		83%	SPK: 100
321-60-8	2-Fluorobiphenyl	84.5		44 - 119		84%	SPK: 100
118-79-6	2,4,6-Tribromophenol	130		43 - 140		86%	SPK: 150
1718-51-0	Terphenyl-d14	94.8		50 - 134		95%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	123000	6.875				
1146-65-2	Naphthalene-d8	469000	8.157				
15067-26-2	Acenaphthene-d10	267000	9.91				
1517-22-2	Phenanthrene-d10	499000	11.404				
1719-03-5	Chrysene-d12	288000	14.057				
1520-96-3	Perylene-d12	231000	15.569				

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:	CTO WE13		Date Received:	
Client Sample ID:	PB165039BSD		SDG No.:	P4868
Lab Sample ID:	PB165039BSD		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140491.D	1	11/16/24 08:15	11/20/24 10:49	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	38.3		4.00	8.00	10.0	ug/L
108-95-2	Phenol	42.4		0.93	4.00	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	44.1		1.20	4.00	5.00	ug/L
95-57-8	2-Chlorophenol	44.9		0.71	4.00	5.00	ug/L
95-48-7	2-Methylphenol	43.3		1.10	4.00	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	41.3		1.40	4.00	5.00	ug/L
98-86-2	Acetophenone	42.8		1.10	4.00	5.00	ug/L
65794-96-9	3+4-Methylphenols	43.9		1.20	8.00	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	41.9		1.50	2.50	2.50	ug/L
67-72-1	Hexachloroethane	42.1		1.00	4.00	5.00	ug/L
98-95-3	Nitrobenzene	41.3		1.30	4.00	5.00	ug/L
78-59-1	Isophorone	43.3		1.10	4.00	5.00	ug/L
88-75-5	2-Nitrophenol	44.9		2.00	4.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	53.1		1.50	4.00	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	42.6		1.00	4.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	44.8		0.88	4.00	5.00	ug/L
91-20-3	Naphthalene	43.0		1.00	4.00	5.00	ug/L
106-47-8	4-Chloroaniline	20.2		1.30	4.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	41.8		1.30	4.00	5.00	ug/L
105-60-2	Caprolactam	43.2		1.70	8.00	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	45.5		0.84	4.00	5.00	ug/L
91-57-6	2-Methylnaphthalene	43.6		1.10	4.00	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	160	E	5.00	8.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	44.5		0.89	4.00	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	42.9		1.00	4.00	5.00	ug/L
92-52-4	1,1-Biphenyl	43.3		0.91	4.00	5.00	ug/L
91-58-7	2-Chloronaphthalene	42.6		0.97	4.00	5.00	ug/L
88-74-4	2-Nitroaniline	44.7		1.40	4.00	5.00	ug/L
131-11-3	Dimethylphthalate	45.1		0.93	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	PB165039BSD		SDG No.:	P4868
Lab Sample ID:	PB165039BSD		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140491.D	1	11/16/24 08:15	11/20/24 10:49	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
208-96-8	Acenaphthylene	46.8		1.00	4.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	43.4		1.20	4.00	5.00	ug/L
99-09-2	3-Nitroaniline	28.0		1.40	4.00	5.00	ug/L
83-32-9	Acenaphthene	49.1		0.81	4.00	5.00	ug/L
51-28-5	2,4-Dinitrophenol	90.3	E	6.40	8.00	10.0	ug/L
100-02-7	4-Nitrophenol	83.4	E	2.00	8.00	10.0	ug/L
132-64-9	Dibenzofuran	44.5		0.93	4.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	44.7		1.50	4.00	5.00	ug/L
84-66-2	Diethylphthalate	44.2		1.00	4.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	44.0		0.98	4.00	5.00	ug/L
86-73-7	Fluorene	44.3		0.96	4.00	5.00	ug/L
100-01-6	4-Nitroaniline	43.2		2.00	4.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	47.9		3.10	8.00	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	45.6		0.89	4.00	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	44.6		0.95	4.00	5.00	ug/L
118-74-1	Hexachlorobenzene	44.2		1.10	4.00	5.00	ug/L
1912-24-9	Atrazine	50.0		1.30	4.00	5.00	ug/L
87-86-5	Pentachlorophenol	84.5	E	1.90	8.00	10.0	ug/L
85-01-8	Phenanthrene	45.0		0.89	4.00	5.00	ug/L
120-12-7	Anthracene	47.6		1.10	4.00	5.00	ug/L
86-74-8	Carbazole	44.4		1.20	4.00	5.00	ug/L
84-74-2	Di-n-butylphthalate	44.4		1.50	4.00	5.00	ug/L
206-44-0	Fluoranthene	44.4		1.30	4.00	5.00	ug/L
129-00-0	Pyrene	46.6		1.10	4.00	5.00	ug/L
85-68-7	Butylbenzylphthalate	47.9		2.10	4.00	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	29.0		1.30	8.00	10.0	ug/L
56-55-3	Benzo(a)anthracene	44.8		0.94	4.00	5.00	ug/L
218-01-9	Chrysene	45.5		0.86	4.00	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	47.2		1.90	4.00	5.00	ug/L
117-84-0	Di-n-octyl phthalate	45.1		2.50	8.00	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	42.5		1.10	4.00	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB165039BSD		SDG No.:	P4868	
Lab Sample ID:	PB165039BSD		Matrix:	Water	
Analytical Method:	SW8270		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140491.D	1	11/16/24 08:15	11/20/24 10:49	PB165039

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	46.4		1.20	4.00	5.00	ug/L
50-32-8	Benzo(a)pyrene	48.7		1.70	4.00	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	49.1		1.00	4.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	48.7		1.20	4.00	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	45.0		1.20	4.00	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	43.4		1.10	4.00	5.00	ug/L
123-91-1	1,4-Dioxane	37.8		1.30	4.00	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	47.2		0.79	4.00	5.00	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	121		19 - 119		81%	SPK: 150
13127-88-3	Phenol-d6	117		10 - 130		78%	SPK: 150
4165-60-0	Nitrobenzene-d5	82.7		44 - 120		83%	SPK: 100
321-60-8	2-Fluorobiphenyl	85.6		44 - 119		86%	SPK: 100
118-79-6	2,4,6-Tribromophenol	131		43 - 140		87%	SPK: 150
1718-51-0	Terphenyl-d14	93.3		50 - 134		93%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	122000	6.875				
1146-65-2	Naphthalene-d8	462000	8.151				
15067-26-2	Acenaphthene-d10	259000	9.91				
1517-22-2	Phenanthrene-d10	492000	11.404				
1719-03-5	Chrysene-d12	293000	14.057				
1520-96-3	Perylene-d12	238000	15.568				

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_F\Methods\
 Method File : 8270-BF111324.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Nov 13 14:40:06 2024
 Response Via : Initial Calibration

Calibration Files

2.5 =BF140332.D 5 =BF140333.D 10 =BF140334.D 20 =BF140335.D 40 =BF140340.D 50 =BF140337.D 60 =BF140338.D 80 =BF140339.D

Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD

1) I 1,4-Dichlorobenzen...	-----ISTD-----									
2) 1,4-Dioxane	0.582	0.546	0.530	0.515	0.495	0.506	0.480	0.522	6.53	
3) Pyridine	1.430	1.343	1.323	1.316	1.189	1.237	1.147	1.283	7.61	
4) n-Nitrosodimet...	0.658	0.632	0.651	0.659	0.644	0.671	0.627	0.649	2.39	
5) S 2-Fluorophenol	1.329	1.257	1.223	1.150	1.090	1.118	1.032	1.171	8.84	
6) Aniline	1.587	1.527	1.495	1.451	1.267	1.270	1.066	1.381	13.42	
7) S Phenol-d6	1.773	1.691	1.643	1.605	1.483	1.507	1.407	1.587	8.09	
8) 2-Chlorophenol	1.397	1.349	1.332	1.263	1.176	1.184	1.106	1.258	8.49	
9) Benzaldehyde	1.101	1.087	1.017	0.891	0.828	0.783	0.951	14.32		
10) C Phenol	1.799	1.793	1.743	1.724	1.582	1.597	1.478	1.674	7.31	
11) bis(2-Chloroet...	1.359	1.294	1.306	1.263	1.227	1.249	1.179	1.268	4.60	
12) 1,3-Dichlorobe...	1.585	1.475	1.454	1.374	1.291	1.317	1.221	1.388	8.98	
13) C 1,4-Dichlorobe...	1.590	1.534	1.486	1.391	1.306	1.326	1.221	1.408	9.49	
14) 1,2-Dichlorobe...	1.494	1.429	1.398	1.294	1.212	1.214	1.108	1.307	10.63	
15) Benzyl Alcohol	1.172	1.193	1.199	1.211	1.100	1.108	1.020	1.143	6.10	
16) 2,2'-oxybis(1-...	1.906	1.826	1.815	1.816	1.666	1.684	1.549	1.752	7.01	
17) 2-Methylphenol	1.092	1.062	1.072	1.064	0.998	1.016	0.942	1.035	5.07	
18) Hexachloroethane	0.562	0.543	0.550	0.514	0.500	0.506	0.468	0.520	6.30	
19) P n-Nitroso-di-n...	1.032	1.029	1.003	0.986	0.982	0.883	0.905	0.848	0.959	7.30
20) 3+4-Methylphenols	1.436	1.427	1.359	1.351	1.200	1.198	1.091	1.294	10.21	

21) I Naphthalene-d8	-----ISTD-----									
22) Acetophenone	0.532	0.508	0.481	0.450	0.434	0.441	0.411	0.465	9.35	
23) S Nitrobenzene-d5	0.411	0.401	0.399	0.375	0.368	0.379	0.354	0.384	5.28	
24) Nitrobenzene	0.423	0.421	0.406	0.393	0.390	0.394	0.371	0.400	4.61	
25) Isophorone	0.736	0.702	0.692	0.674	0.654	0.671	0.634	0.680	4.87	
26) C 2-Nitrophenol	0.175	0.179	0.181	0.179	0.175	0.181	0.171	0.177	1.99	
27) 2,4-Dimethylph...	0.238	0.236	0.232	0.223	0.221	0.227	0.214	0.227	3.86	
28) bis(2-Chloroet...	0.461	0.442	0.430	0.407	0.398	0.404	0.379	0.417	6.80	
29) C 2,4-Dichloroph...	0.307	0.296	0.287	0.275	0.272	0.272	0.255	0.281	6.20	
30) 1,2,4-Trichlor...	0.346	0.331	0.325	0.302	0.298	0.301	0.283	0.312	7.15	
31) Naphthalene	1.160	1.105	1.064	0.982	0.950	0.955	0.886	1.015	9.60	
32) Benzoic acid	0.162	0.178	0.180	0.212	0.215	0.226	0.226	0.200	13.01	
33) 4-Chloroaniline	0.390	0.386	0.370	0.340	0.333	0.340	0.311	0.353	8.36	
34) C Hexachlorobuta...	0.220	0.214	0.210	0.193	0.188	0.190	0.178	0.199	7.73	
35) Caprolactam	0.098	0.093	0.094	0.092	0.091	0.095	0.089	0.093	3.27	
36) C 4-Chloro-3-met...	0.331	0.327	0.320	0.309	0.299	0.304	0.287	0.311	5.14	
37) 2-Methylnaphth...	0.751	0.706	0.683	0.632	0.610	0.607	0.565	0.651	10.01	
38) 1-Methylnaphth...	0.734	0.696	0.673	0.625	0.589	0.592	0.550	0.637	10.39	

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
 Method File : 8270-BF111324.M

39) I	Acenaphthene-d10	-----ISTD-----									
40)	1,2,4,5-Tetrac...	0.646	0.585	0.583	0.531	0.524	0.517	0.485	0.553	9.85	
41) P	Hexachlorocycl...	0.111	0.143	0.139	0.156	0.159	0.145	0.142	12.04		
42) S	2,4,6-Tribromo...	0.220	0.211	0.207	0.193	0.191	0.189	0.182	0.199	6.88	
43) C	2,4,6-Trichlor...	0.380	0.374	0.374	0.360	0.360	0.352	0.341	0.363	3.87	
44)	2,4,5-Trichlor...	0.421	0.417	0.412	0.389	0.387	0.390	0.361	0.397	5.41	
45) S	2-Fluorobiphenyl	1.524	1.396	1.351	1.172	1.125	1.110	1.031	1.244	14.50	
46)	1,1'-Biphenyl	1.690	1.571	1.565	1.404	1.368	1.343	1.244	1.455	10.80	
47)	2-Chloronaphth...	1.279	1.182	1.149	1.065	1.064	1.049	0.971	1.108	9.20	
48)	2-Nitroaniline	0.378	0.365	0.384	0.364	0.365	0.366	0.351	0.368	2.91	
49)	Acenaphthylene	1.940	1.802	1.786	1.636	1.582	1.552	1.441	1.677	10.29	
50)	Dimethylphthalate	1.464	1.358	1.371	1.261	1.246	1.244	1.181	1.304	7.47	
51)	2,6-Dinitrotol...	0.317	0.303	0.313	0.297	0.291	0.289	0.268	0.297	5.57	
52) C	Acenaphthene	1.259	1.204	1.192	1.096	1.091	1.079	1.006	1.133	7.78	
53)	3-Nitroaniline	0.333	0.327	0.335	0.310	0.307	0.298	0.275	0.312	6.92	
54) P	2,4-Dinitrophenol	0.109	0.148	0.147	0.178	0.170	0.168	0.153	16.27		
55)	Dibenzofuran	1.904	1.736	1.715	1.558	1.502	1.466	1.344	1.603	11.92	
56) P	4-Nitrophenol	0.199	0.217	0.239	0.236	0.240	0.237	0.225	0.228	6.67	
57)	2,4-Dinitrotol...	0.414	0.400	0.417	0.387	0.387	0.382	0.351	0.391	5.77	
58)	Fluorene	1.525	1.403	1.365	1.202	1.168	1.137	1.066	1.267	13.14	
59)	2,3,4,6-Tetrac...	0.322	0.328	0.326	0.318	0.308	0.302	0.288	0.313	4.61	
60)	Diethylphthalate	1.525	1.417	1.398	1.287	1.272	1.246	1.185	1.333	8.85	
61)	4-Chlorophenyl...	0.739	0.688	0.669	0.604	0.583	0.567	0.528	0.625	12.01	
62)	4-Nitroaniline	0.335	0.325	0.328	0.319	0.316	0.313	0.297	0.319	3.86	
63)	Azobenzene	1.498	1.391	1.380	1.293	1.251	1.244	1.163	1.317	8.55	
64) I	Phenanthrene-d10	-----ISTD-----									
65)	4,6-Dinitro-2-...	0.080	0.098	0.113	0.109	0.117	0.120	0.116	0.108	13.00	
66) c	n-Nitrosodiphe...	0.651	0.630	0.600	0.559	0.541	0.541	0.522	0.578	8.57	
67)	4-Bromophenyl-...	0.227	0.210	0.209	0.194	0.191	0.188	0.180	0.200	8.14	
68)	Hexachlorobenzene	0.251	0.242	0.232	0.218	0.209	0.215	0.208	0.225	7.54	
69)	Atrazine	0.191	0.183	0.135	0.145	0.155	0.205	0.209	0.175	17.03	
70) C	Pentachlorophenol	0.097	0.108	0.124	0.127	0.131	0.130	0.130	0.121	10.87	
71)	Phenanthrene	1.096	1.053	0.986	0.903	0.868	0.851	0.820	0.940	11.33	
72)	Anthracene	1.071	1.018	0.966	0.889	0.860	0.839	0.803	0.921	10.81	
73)	Carbazole	1.053	1.009	0.963	0.876	0.846	0.834	0.783	0.909	11.02	
74)	Di-n-butylphth...	1.214	1.177	1.150	1.074	1.036	1.023	0.964	1.091	8.37	
75) C	Fluoranthene	1.256	1.201	1.141	1.018	0.962	0.933	0.867	1.054	13.92	
76) I	Chrysene-d12	-----ISTD-----									
77)	Benzidine	0.634	0.684	0.653	0.742	0.953	0.939	0.768	18.64		
78)	Pyrene	1.748	1.706	1.643	1.679	1.728	1.800	1.672	1.711	3.08	
79) S	Terphenyl-d14	1.226	1.185	1.108	1.123	1.139	1.190	1.093	1.152	4.26	
80)	Butylbenzylpht...	0.640	0.638	0.654	0.690	0.670	0.681	0.628	0.657	3.56	
81)	Benzo(a)anthra...	1.451	1.418	1.351	1.263	1.229	1.294	1.195	1.314	7.31	
82)	3,3'-Dichlorob...	0.438	0.431	0.433	0.402	0.406	0.416	0.399	0.418	3.79	
83)	Chrysene	1.394	1.241	1.235	1.168	1.137	1.123	1.099	1.199	8.44	
84)	Bis(2-ethylhex...	0.886	0.890	0.897	0.927	0.858	0.869	0.813	0.877	4.07	
85) c	Di-n-octyl pht...	1.231	1.217	1.270	1.290	1.187	1.241	1.212	1.235	2.86	

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF111324.M

86) I	Perylene-d12	-----ISTD-----								
87)	Indeno(1,2,3-c...	1.116	1.150	1.138	1.258	1.316	1.354	1.317	1.235	8.02
88)	Benzo(b)fluora...	1.405	1.352	1.471	1.263	1.235	1.233	1.199	1.308	7.82
89)	Benzo(k)fluora...	1.286	1.241	1.120	1.060	0.952	0.935	0.888	1.069	14.47
90) C	Benzo(a)pyrene	1.100	1.053	1.054	1.005	0.970	0.980	0.948	1.016	5.40
91)	Dibenzo(a,h)an...	0.941	0.952	0.944	1.039	1.074	1.121	1.077	1.021	7.30
92)	Benzo(g,h,i)pe...	0.941	0.963	0.954	1.063	1.122	1.146	1.120	1.044	8.55

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG No.: P4868
Instrument ID: BNA_F Calibration Date/Time: 11/20/2024 09:31
Lab File ID: BF140488.D Init. Calib. Date(s): 11/13/2024 11/13/2024
EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48
GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.171	1.183		1.0	
Benzaldehyde	0.951	1.434		50.8	
Phenol-d6	1.587	1.579		-0.5	
Phenol	1.674	1.657		-1.0	20.0
bis(2-Chloroethyl)ether	1.268	1.277		0.7	
2-Chlorophenol	1.258	1.268		0.8	
2-Methylphenol	1.035	1.032		-0.3	
2,2-oxybis(1-Chloropropane)	1.752	1.634		-6.7	
Acetophenone	0.465	0.469		0.9	
3+4-Methylphenols	1.295	1.290		-0.4	
n-Nitroso-di-n-propylamine	0.959	0.916	0.050	-4.5	
Nitrobenzene-d5	0.384	0.392		2.1	
Hexachloroethane	0.520	0.535		2.9	
Nitrobenzene	0.400	0.409		2.3	
Isophorone	0.680	0.680		0.0	
2-Nitrophenol	0.177	0.189		6.8	20.0
2,4-Dimethylphenol	0.227	0.234		3.1	
bis(2-Chloroethoxy)methane	0.417	0.423		1.4	
2,4-Dichlorophenol	0.281	0.294		4.6	20.0
Naphthalene	1.015	1.040		2.5	
4-Chloroaniline	0.353	0.342		-3.1	
Hexachlorobutadiene	0.199	0.209		5.0	20.0
Caprolactam	0.093	0.096		3.2	
4-Chloro-3-methylphenol	0.311	0.322		3.5	20.0
2-Methylnaphthalene	0.651	0.663		1.8	
Hexachlorocyclopentadiene	0.142	0.127	0.050	-10.6	
2,4,6-Trichlorophenol	0.363	0.377		3.9	20.0
2-Fluorobiphenyl	1.244	1.282		3.1	
2,4,5-Trichlorophenol	0.397	0.418		5.3	
1,1-Biphenyl	1.455	1.501		3.2	
2-Chloronaphthalene	1.108	1.144		3.2	
2-Nitroaniline	0.368	0.375		1.9	
Dimethylphthalate	1.304	1.342		2.9	
Acenaphthylene	1.677	1.721		2.6	
2,6-Dinitrotoluene	0.297	0.314		5.7	
3-Nitroaniline	0.312	0.318		1.9	
Acenaphthene	1.133	1.176		3.8	20.0
2,4-Dinitrophenol	0.153	0.154	0.050	0.7	
4-Nitrophenol	0.228	0.216	0.050	-5.3	

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG No.: P4868

Instrument ID: BNA_F Calibration Date/Time: 11/20/2024 09:31

Lab File ID: BF140488.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.603	1.638		2.2	
2,4-Dinitrotoluene	0.391	0.410		4.9	
Diethylphthalate	1.333	1.357		1.8	
4-Chlorophenyl-phenylether	0.625	0.650		4.0	
Fluorene	1.267	1.310		3.4	
4-Nitroaniline	0.319	0.317		-0.6	
4,6-Dinitro-2-methylphenol	0.108	0.121		12.0	
n-Nitrosodiphenylamine	0.578	0.600		3.8	20.0
2,4,6-Tribromophenol	0.199	0.210		5.5	
4-Bromophenyl-phenylether	0.200	0.207		3.5	
Hexachlorobenzene	0.225	0.237		5.3	
Atrazine	0.175	0.161		-8.0	
Pentachlorophenol	0.121	0.122		0.8	20.0
Phenanthrene	0.940	0.958		1.9	
Anthracene	0.921	0.940		2.1	
Carbazole	0.909	0.919		1.1	
Di-n-butylphthalate	1.091	1.108		1.6	
Fluoranthene	1.054	1.040		-1.3	20.0
Pyrene	1.711	1.993		16.5	
Terphenyl-d14	1.152	1.323		14.8	
Butylbenzylphthalate	0.657	0.733		11.6	
3,3-Dichlorobenzidine	0.418	0.425		1.7	
Benzo (a) anthracene	1.314	1.367		4.0	
Chrysene	1.199	1.229		2.5	
Bis(2-ethylhexyl)phthalate	0.877	0.895		2.1	
Di-n-octyl phthalate	1.235	1.193		-3.4	20.0
Benzo (b) fluoranthene	1.308	1.186		-9.3	
Benzo (k) fluoranthene	1.069	1.134		6.1	
Benzo (a) pyrene	1.016	1.047		3.1	20.0
Indeno (1,2,3-cd) pyrene	1.235	1.428		15.6	
Dibenzo (a,h) anthracene	1.021	1.170		14.6	
Benzo (g,h,i) perylene	1.044	1.208		15.7	
1,2,4,5-Tetrachlorobenzene	0.553	0.581		5.1	
1,4-Dioxane	0.522	0.523		0.2	20.0
2,3,4,6-Tetrachlorophenol	0.313	0.321		2.6	

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG No.: P4868

Instrument ID: BNA_F Calibration Date/Time: 11/20/2024 14:34

Lab File ID: BF140499.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC040EC Init. Calib. Time(s): 09:01 12:48

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.171	1.177		0.5	50.0
Benzaldehyde	0.951	1.385		45.6	50.0
Phenol-d6	1.587	1.558		-1.8	50.0
Phenol	1.674	1.601		-4.4	50.0
bis(2-Chloroethyl)ether	1.268	1.301		2.6	50.0
2-Chlorophenol	1.258	1.255		-0.2	50.0
2-Methylphenol	1.035	1.015		-1.9	50.0
2,2-oxybis(1-Chloropropane)	1.752	1.576		-10.0	50.0
Acetophenone	0.465	0.475		2.2	50.0
3+4-Methylphenols	1.295	1.265		-2.3	50.0
n-Nitroso-di-n-propylamine	0.959	0.897	0.050	-6.5	50.0
Nitrobenzene-d5	0.384	0.399		3.9	50.0
Hexachloroethane	0.520	0.523		0.6	50.0
Nitrobenzene	0.400	0.412		3.0	50.0
Isophorone	0.680	0.686		0.9	50.0
2-Nitrophenol	0.177	0.191		7.9	50.0
2,4-Dimethylphenol	0.227	0.237		4.4	50.0
bis(2-Chloroethoxy)methane	0.417	0.422		1.2	50.0
2,4-Dichlorophenol	0.281	0.298		6.1	50.0
Naphthalene	1.015	1.040		2.5	50.0
4-Chloroaniline	0.353	0.232		-34.3	50.0
Hexachlorobutadiene	0.199	0.208		4.5	50.0
Caprolactam	0.093	0.096		3.2	50.0
4-Chloro-3-methylphenol	0.311	0.321		3.2	50.0
2-Methylnaphthalene	0.651	0.658		1.1	50.0
Hexachlorocyclopentadiene	0.142	0.132	0.050	-7.0	50.0
2,4,6-Trichlorophenol	0.363	0.380		4.7	50.0
2-Fluorobiphenyl	1.244	1.256		1.0	50.0
2,4,5-Trichlorophenol	0.397	0.417		5.0	50.0
1,1-Biphenyl	1.455	1.469		1.0	50.0
2-Chloronaphthalene	1.108	1.126		1.6	50.0
2-Nitroaniline	0.368	0.373		1.4	50.0
Dimethylphthalate	1.304	1.328		1.8	50.0
Acenaphthylene	1.677	1.715		2.3	50.0
2,6-Dinitrotoluene	0.297	0.308		3.7	50.0
3-Nitroaniline	0.312	0.310		-0.6	50.0
Acenaphthene	1.133	1.182		4.3	50.0
2,4-Dinitrophenol	0.153	0.170	0.050	11.1	50.0
4-Nitrophenol	0.228	0.215	0.050	-5.7	50.0

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG No.: P4868
Instrument ID: BNA_F Calibration Date/Time: 11/20/2024 14:34
Lab File ID: BF140499.D Init. Calib. Date(s): 11/13/2024 11/13/2024
EPA Sample No.: SSTDCCC040EC Init. Calib. Time(s): 09:01 12:48
GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.603	1.639		2.2	50.0
2,4-Dinitrotoluene	0.391	0.412		5.4	50.0
Diethylphthalate	1.333	1.338		0.4	50.0
4-Chlorophenyl-phenylether	0.625	0.636		1.8	50.0
Fluorene	1.267	1.285		1.4	50.0
4-Nitroaniline	0.319	0.311		-2.5	50.0
4,6-Dinitro-2-methylphenol	0.108	0.126		16.7	50.0
n-Nitrosodiphenylamine	0.578	0.597		3.3	50.0
2,4,6-Tribromophenol	0.199	0.208		4.5	50.0
4-Bromophenyl-phenylether	0.200	0.210		5.0	50.0
Hexachlorobenzene	0.225	0.235		4.4	50.0
Atrazine	0.175	0.154		-12.0	50.0
Pentachlorophenol	0.121	0.119		-1.7	50.0
Phenanthrene	0.940	0.960		2.1	50.0
Anthracene	0.921	0.945		2.6	50.0
Carbazole	0.909	0.928		2.1	50.0
Di-n-butylphthalate	1.091	1.108		1.6	50.0
Fluoranthene	1.054	1.050		-0.4	50.0
Pyrene	1.711	1.890		10.5	50.0
Terphenyl-d14	1.152	1.256		9.0	50.0
Butylbenzylphthalate	0.657	0.713		8.5	50.0
3,3-Dichlorobenzidine	0.418	0.374		-10.5	50.0
Benzo (a) anthracene	1.314	1.385		5.4	50.0
Chrysene	1.199	1.203		0.3	50.0
Bis(2-ethylhexyl)phthalate	0.877	0.913		4.1	50.0
Di-n-octyl phthalate	1.235	1.267		2.6	50.0
Benzo (b) fluoranthene	1.308	1.245		-4.8	50.0
Benzo (k) fluoranthene	1.069	1.104		3.3	50.0
Benzo (a) pyrene	1.016	1.045		2.9	50.0
Indeno (1,2,3-cd) pyrene	1.235	1.280		3.6	50.0
Dibenzo (a,h) anthracene	1.021	1.063		4.1	50.0
Benzo (g,h,i) perylene	1.044	1.081		3.5	50.0
1,2,4,5-Tetrachlorobenzene	0.553	0.573		3.6	50.0
1,4-Dioxane	0.522	0.528		1.1	50.0
2,3,4,6-Tetrachlorophenol	0.313	0.324		3.5	50.0

All other compounds must meet a minimum RRF of 0.010.

LAB CHRONICLE

OrderID:	P4868	OrderDate:	11/14/2024 3:41:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4868-01	RW5-SP100-20241114	Water			11/14/24			11/14/24
			SVOC-SIMGroup1	8270-Modified		11/15/24	11/21/24	
			SVOC-TCL BNA -20	8270E		11/16/24	11/20/24	
P4868-02	RW5-SP201-20241114	Water			11/14/24			11/14/24
			SVOC-SIMGroup1	8270-Modified		11/15/24	11/21/24	
P4868-03	RW5-SP303-20241114	Water			11/14/24			11/14/24
			SVOC-SIMGroup1	8270-Modified		11/15/24	11/21/24	
			SVOC-TCL BNA -20	8270E		11/16/24	11/20/24	
P4868-03RE	RW5-SP303-20241114RE	Water			11/14/24			11/14/24
			SVOC-TCL BNA -20	8270E		11/16/24	11/20/24	

Hit Summary Sheet SW-846

SDG No.: P4868
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : RW5-SP100-20241114								
P4868-01	RW5-SP100-20241114	WATER	1,4-Dioxane	9.700	0.34	1	1	ug/L
			Total Svoc :	9.70				
			Total Concentration:	9.70				
Client ID : RW5-SP201-20241114								
P4868-02	RW5-SP201-20241114	WATER	1,4-Dioxane	0.150 J	0.07	0.2	0.2	ug/L
			Total Svoc :	0.15				
			Total Concentration:	0.15				
Client ID : RW5-SP303-20241114								
P4868-03	RW5-SP303-20241114	WATER	1,4-Dioxane	0.100 J	0.07	0.2	0.2	ug/L
			Total Svoc :	0.10				
			Total Concentration:	0.10				



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/14/24
Project:	CTO WE13	Date Received:	11/14/24
Client Sample ID:	RW5-SP100-20241114	SDG No.:	P4868
Lab Sample ID:	P4868-01	Matrix:	Water
Analytical Method:	SW8270SIM	% 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 :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035222.D	5	11/15/24 12:05	11/21/24 15:12	PB165012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	9.70		0.34	1.00	1.00	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.30		30 - 150		74%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		88%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.19	*	55 - 111		46%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.28		53 - 106		69%	SPK: 0.4
1718-51-0	Terphenyl-d14	1.76	*	58 - 132		441%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2550	7.329				
1146-65-2	Naphthalene-d8	5910	10.073				
15067-26-2	Acenaphthene-d10	4010	13.987				
1517-22-2	Phenanthrene-d10	8980	16.746				
1719-03-5	Chrysene-d12	1830	21.008				
1520-96-3	Perylene-d12	5240	23.104				

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:	11/14/24
Project:	CTO WE13	Date Received:	11/14/24
Client Sample ID:	RW5-SP201-20241114	SDG No.:	P4868
Lab Sample ID:	P4868-02	Matrix:	Water
Analytical Method:	SW8270SIM	% 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 :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035221.D	1	11/15/24 12:05	11/21/24 14:35	PB165012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.15	J	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.28		30 - 150		69%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.15		30 - 150		38%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.25		55 - 111		63%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		88%	SPK: 0.4
1718-51-0	Terphenyl-d14	14.9	*	58 - 132		3736%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3000	7.329				
1146-65-2	Naphthalene-d8	6730	10.073				
15067-26-2	Acenaphthene-d10	1730	13.983				
1517-22-2	Phenanthrene-d10	6280	16.753				
1719-03-5	Chrysene-d12	144	21.006				
1520-96-3	Perylene-d12	16.0	23.102				

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:	11/14/24
Project:	CTO WE13	Date Received:	11/14/24
Client Sample ID:	RW5-SP303-20241114	SDG No.:	P4868
Lab Sample ID:	P4868-03	Matrix:	Water
Analytical Method:	SW8270SIM	% 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 :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035224.D	1	11/15/24 12:05	11/21/24 16:24	PB165012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.10	J	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	0.23		30 - 150		57%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.24		55 - 111		61%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.15	*	53 - 106		38%	SPK: 0.4
1718-51-0	Terphenyl-d14	2.71	*	58 - 132		677%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2790		7.329			
1146-65-2	Naphthalene-d8	6600		10.073			
15067-26-2	Acenaphthene-d10	2230		13.987			
1517-22-2	Phenanthrene-d10	7430		16.746			
1719-03-5	Chrysene-d12	966		21.008			
1520-96-3	Perylene-d12	110		23.107			

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.: P4868

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4868-01	RW5-SP100-20241114	2-Methylnaphthalene-d10	0.4	0.30	74		30	150
		Fluoranthene-d10	0.4	0.35	88		30	150
		Nitrobenzene-d5	0.4	0.19	46	*	55	111
		2-Fluorobiphenyl	0.4	0.28	69		53	106
		Terphenyl-d14	0.4	1.76	441	*	58	132
P4868-02	RW5-SP201-20241114	2-Methylnaphthalene-d10	0.4	0.28	69		30	150
		Fluoranthene-d10	0.4	0.15	38		30	150
		Nitrobenzene-d5	0.4	0.25	63		55	111
		2-Fluorobiphenyl	0.4	0.35	88		53	106
		Terphenyl-d14	0.4	14.9	3736	*	58	132
P4868-03	RW5-SP303-20241114	2-Methylnaphthalene-d10	0.4	0.34	84		30	150
		Fluoranthene-d10	0.4	0.23	57		30	150
		Nitrobenzene-d5	0.4	0.24	61		55	111
		2-Fluorobiphenyl	0.4	0.15	38	*	53	106
		Terphenyl-d14	0.4	2.71	677	*	58	132
PB165012BL	PB165012BL	2-Methylnaphthalene-d10	0.4	0.36	90		30	150
		Fluoranthene-d10	0.4	0.33	83		30	150
		Nitrobenzene-d5	0.4	0.28	69		55	111
		2-Fluorobiphenyl	0.4	0.17	42	*	53	106
		Terphenyl-d14	0.4	1.29	323	*	58	132
PB165012BS	PB165012BS	2-Methylnaphthalene-d10	0.4	0.33	82		30	150
		Fluoranthene-d10	0.4	0.26	66		30	150
		Nitrobenzene-d5	0.4	0.22	56		55	111
		2-Fluorobiphenyl	0.4	0.086	22	*	53	106
		Terphenyl-d14	0.4	2.22	556	*	58	132
PB165012BSD	PB165012BSD	2-Methylnaphthalene-d10	0.4	0.35	87		30	150
		Fluoranthene-d10	0.4	0.30	76		30	150
		Nitrobenzene-d5	0.4	0.24	60		55	111
		2-Fluorobiphenyl	0.4	0.075	19	*	53	106
		Terphenyl-d14	0.4	2.27	567	*	58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4868

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035226.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB165012BS	1,4-Dioxane	0.4	0.38	ug/L	95				70	130	

A
B
C
D
E
F
G

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4868

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035227.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB165012BSD	1,4-Dioxane	0.4	0.39	ug/L	98	3			70	130	20

A

B

C

D

E

F

G

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165012BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4868

SAS No.: P4868 SDG NO.: P4868

Lab File ID: BN035220.D

Lab Sample ID: PB165012BL

Instrument ID: BNA_N

Date Extracted: 11/15/2024

Matrix: (soil/water) Water

Date Analyzed: 11/21/2024

Level: (low/med) LOW

Time Analyzed: 13:58

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
RW5-SP303-20241114	P4868-03	BN035224.D	11/21/2024
PB165012BS	PB165012BS	BN035226.D	11/21/2024
PB165012BSD	PB165012BSD	BN035227.D	11/21/2024
RW5-SP100-20241114	P4868-01	BN035222.D	11/21/2024
RW5-SP201-20241114	P4868-02	BN035221.D	11/21/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4868

SDG NO.: P4868

Lab File ID: BN035061.D

DFTPP Injection Date: 11/13/2024

Instrument ID: BNA_N

DFTPP Injection Time: 12:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.6
68	Less than 2.0% of mass 69	0.4 (1.4) 1
69	Mass 69 relative abundance	29.1
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	35.9
197	Less than 2.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	27.6
365	Greater than 1% of mass 198	4.4
441	Present, but less than mass 443	9.3
442	Greater than 50% of mass 198	59.1
443	15.0 - 24.0% of mass 442	11.2 (19) 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	BN035062.D	11/13/2024	12:40
SSTDICC0.2	SSTDICC0.2	BN035063.D	11/13/2024	13:16
SSTDICCC0.4	SSTDICCC0.4	BN035064.D	11/13/2024	13:52
SSTDICC0.8	SSTDICC0.8	BN035065.D	11/13/2024	14:28
SSTDICC1.6	SSTDICC1.6	BN035066.D	11/13/2024	15:04
SSTDICC3.2	SSTDICC3.2	BN035067.D	11/13/2024	15:39
SSTDICC5.0	SSTDICC5.0	BN035068.D	11/13/2024	16:15

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4868

SDG NO.: P4868

Lab File ID: BN035218.D

DFTPP Injection Date: 11/21/2024

Instrument ID: BNA_N

DFTPP Injection Time: 12:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	23.4
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	30.3
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	40
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	6.5
275	10.0 - 60.0% of mass 198	27.6
365	Greater than 1% of mass 198	4.2
441	Present, but less than mass 443	11.3
442	Greater than 50% of mass 198	68.4
443	15.0 - 24.0% of mass 442	12.7 (18.5) 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	BN035219.D	11/21/2024	13:22
PB165012BL	PB165012BL	BN035220.D	11/21/2024	13:58
RW5-SP201-20241114	P4868-02	BN035221.D	11/21/2024	14:35
RW5-SP100-20241114	P4868-01	BN035222.D	11/21/2024	15:12
RW5-SP303-20241114	P4868-03	BN035224.D	11/21/2024	16:24
PB165012BS	PB165012BS	BN035226.D	11/21/2024	17:36
PB165012BSD	PB165012BSD	BN035227.D	11/21/2024	18:12
SSTDCCC0.4EC	SSTDCCC0.4	BN035235.D	11/21/2024	23:01

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG NO.: P4868

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/21/2024

Lab File ID: BN035219.D Time Analyzed: 13:22

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	3553	7.329	8594	10.07	5839	13.99
UPPER LIMIT	7106	7.829	17188	10.573	11678	14.487
LOWER LIMIT	1776.5	6.829	4297	9.573	2919.5	13.487
EPA SAMPLE NO.						
01 PB165012BL	3644	7.33	8156	10.07	4996	13.98
02 RW5-SP201-20241114	2998	7.33	6728	10.07	1733 *	13.98
03 RW5-SP100-20241114	2554	7.33	5906	10.07	4010	13.99
04 RW5-SP303-20241114	2785	7.33	6599	10.07	2228 *	13.99
05 PB165012BS	3340	7.33	7691	10.07	4263	13.99
06 PB165012BSD	3072	7.33	6967	10.07	4025	13.98

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: CHEMTECH

Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG NO.: P4868

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/21/2024

Lab File ID: BN035219.D Time Analyzed: 13:22

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	13132	16.746	2179	21.008	7936	23.104
UPPER LIMIT	26264	17.246	4358	21.508	15872	23.604
LOWER LIMIT	6566	16.246	1089.5	20.508	3968	22.604
EPA SAMPLE NO.						
01 PB165012BL	10325	16.75	2547	21.01	7086	23.11
02 RW5-SP201-20241114	6277 *	16.75	144 *	21.01	16 *	23.10
03 RW5-SP100-20241114	8978	16.75	1826	21.01	5244	23.10
04 RW5-SP303-20241114	7426	16.75	966 *	21.01	110 *	23.11
05 PB165012BS	8289	16.75	1030 *	21.01	1173 *	23.10
06 PB165012BSD	7680	16.75	1000 *	21.01	3421 *	23.10

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:	CTO WE13		Date Received:		
Client Sample ID:	PB165012BL		SDG No.:	P4868	
Lab Sample ID:	PB165012BL		Matrix:	Water	
Analytical Method:	SW8270SIM		% 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 :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035220.D	1	11/15/24 12:05	11/21/24 13:58	PB165012

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	0.36		30 - 150		90%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		83%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.28		55 - 111		69%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.17	*	53 - 106		42%	SPK: 0.4
1718-51-0	Terphenyl-d14	1.29	*	58 - 132		323%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3640		7.329			
1146-65-2	Naphthalene-d8	8160		10.073			
15067-26-2	Acenaphthene-d10	5000		13.983			
1517-22-2	Phenanthrene-d10	10300		16.753			
1719-03-5	Chrysene-d12	2550		21.006			
1520-96-3	Perylene-d12	7090		23.105			

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:	CTO WE13		Date Received:		
Client Sample ID:	PB165012BS		SDG No.:	P4868	
Lab Sample ID:	PB165012BS		Matrix:	Water	
Analytical Method:	SW8270SIM		% 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 :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035226.D	1	11/15/24 12:05	11/21/24 17:36	PB165012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.38		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.33		30 - 150		82%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.26		30 - 150		66%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.22		55 - 111		56%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.086	*	53 - 106		22%	SPK: 0.4
1718-51-0	Terphenyl-d14	2.22	*	58 - 132		556%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3340		7.329			
1146-65-2	Naphthalene-d8	7690		10.073			
15067-26-2	Acenaphthene-d10	4260		13.986			
1517-22-2	Phenanthrene-d10	8290		16.746			
1719-03-5	Chrysene-d12	1030		21.008			
1520-96-3	Perylene-d12	1170		23.101			

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:	CTO WE13		Date Received:		
Client Sample ID:	PB165012BSD		SDG No.:	P4868	
Lab Sample ID:	PB165012BSD		Matrix:	Water	
Analytical Method:	SW8270SIM		% 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 :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035227.D	1	11/15/24 12:05	11/21/24 18:12	PB165012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.39		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		87%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.30		30 - 150		76%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.24		55 - 111		60%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.075	*	53 - 106		19%	SPK: 0.4
1718-51-0	Terphenyl-d14	2.27	*	58 - 132		567%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3070	7.329				
1146-65-2	Naphthalene-d8	6970	10.073				
15067-26-2	Acenaphthene-d10	4030	13.976				
1517-22-2	Phenanthrene-d10	7680	16.746				
1719-03-5	Chrysene-d12	1000	21.008				
1520-96-3	Perylene-d12	3420	23.098				

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-BN111324.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Nov 13 17:18:14 2024
 Response Via : Initial Calibration

Calibration Files

0.1 =BN035062.D 0.2 =BN035063.D 0.4 =BN035064.D 0.8 =BN035065.D 1.6 =BN035066.D 3.2 =BN035067.D 5.0 =BN035068.D

	Compound	0.1	0.2	0.4	0.8	1.6	3.2	5.0	Avg	%RSD

1) I	1,4-Dichlorobenzen...	-----ISTD-----								
2)	1,4-Dioxane	0.410	0.382	0.335	0.371	0.367	0.348	0.329	0.363	7.76
3)	n-Nitrosodimet...	0.366	0.328	0.326	0.360	0.347	0.321	0.322	0.339	5.51
4) S	2-Fluorophenol	1.073	1.039	0.949	1.086	1.034	0.966	0.961	1.015	5.54
5) S	Phenol-d6	1.264	1.279	1.159	1.355	1.318	1.255	1.282	1.273	4.79
6)	bis(2-Chloroet...	0.972	0.949	0.893	1.027	0.995	0.925	0.929	0.956	4.77
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.358	0.338	0.320	0.368	0.356	0.344	0.353	0.348	4.53
9)	Naphthalene	1.088	1.009	0.977	1.116	1.085	1.010	1.027	1.044	4.96
10)	Hexachlorobuta...	0.324	0.305	0.293	0.326	0.315	0.289	0.291	0.306	5.12
11) SURR2	Methylnaphth...	0.694	0.683	0.664	0.762	0.753	0.703	0.731	0.713	5.13
12)	2-Methylnaphth...	0.742	0.748	0.711	0.823	0.815	0.765	0.789	0.770	5.29
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.281	0.262	0.240	0.300	0.299	0.308	0.331	0.289	10.57
15) S	2-Fluorobiphenyl	1.701	1.576	1.460	1.735	1.687	1.599	1.614	1.624	5.73
16)	Acenaphthylene	1.715	1.616	1.488	1.822	1.775	1.756	1.795	1.709	6.93
17)	Acenaphthene	1.129	1.079	1.000	1.202	1.157	1.130	1.146	1.120	5.76
18)	Fluorene	1.704	1.591	1.463	1.755	1.708	1.656	1.659	1.648	5.86
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.068	0.067	0.073	0.087	0.088	0.095	0.105	0.083	17.50
21)	4-Bromophenyl-...	0.256	0.240	0.246	0.272	0.267	0.252	0.252	0.255	4.41
22)	Hexachlorobenzene	0.275	0.259	0.253	0.277	0.273	0.258	0.258	0.264	3.79
23)	Atrazine	0.227	0.227	0.217	0.244	0.238	0.223	0.225	0.229	3.95
24)	Pentachlorophenol	0.106	0.101	0.104	0.130	0.130	0.141	0.154	0.124	16.69
25)	Phenanthrene	1.069	1.013	1.004	1.115	1.096	1.034	1.036	1.053	3.97
26)	Anthracene	0.917	0.904	0.920	1.024	1.016	0.986	1.001	0.967	5.32
27) SURR	Fluoranthene-d10	1.196	1.178	1.169	1.288	1.284	1.222	1.240	1.225	3.91
28)	Fluoranthene	1.396	1.376	1.386	1.543	1.527	1.453	1.453	1.448	4.63
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.339	1.290	1.288	1.424	1.367	1.301	1.317	1.332	3.70
31) S	Terphenyl-d14	0.838	0.819	0.810	0.894	0.867	0.817	0.831	0.839	3.63
32)	Benzo(a)anthra...	1.421	1.368	1.328	1.464	1.416	1.355	1.396	1.393	3.31
33)	Chrysene	1.409	1.366	1.332	1.479	1.420	1.331	1.321	1.380	4.27
34)	Bis(2-ethylhex...	0.809	0.753	0.647	0.768	0.702	0.693	0.742	0.731	7.38
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN111324.M

36)	Indeno(1,2,3-c...	1.609	1.515	1.522	1.730	1.659	1.550	1.585	1.596	4.88
37)	Benzo(b)fluora...	1.326	1.272	1.279	1.439	1.418	1.327	1.359	1.346	4.77
38)	Benzo(k)fluora...	1.342	1.288	1.287	1.418	1.410	1.323	1.358	1.347	3.94
39) C	Benzo(a)pyrene	1.172	1.134	1.123	1.247	1.240	1.167	1.207	1.184	4.12
40)	Dibenzo(a,h)an...	1.248	1.195	1.210	1.375	1.322	1.235	1.265	1.264	5.06
41)	Benzo(g,h,i)pe...	1.380	1.288	1.286	1.452	1.386	1.294	1.328	1.345	4.71

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG No.: P4868

Instrument ID: BNA_N Calibration Date/Time: 11/21/2024 13:22

Lab File ID: BN035219.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 12:40 16:15

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.604		-15.3	20.0
Fluoranthene-d10	1.225	0.956		-22.0	20.0
2-Fluorophenol	1.015	1.174		15.7	20.0
Phenol-d6	1.273	1.472		15.6	20.0
Nitrobenzene-d5	0.348	0.208		-40.2	20.0
2-Fluorobiphenyl	1.624	0.299		-81.6	20.0
2,4,6-Tribromophenol	0.289	0.331		14.5	20.0
Terphenyl-d14	0.839	3.629		332.5	20.0
1,4-Dioxane	0.363	0.403		11.0	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4868 SAS No.: P4868 SDG No.: P4868

Instrument ID: BNA_N Calibration Date/Time: 11/21/2024 23:01

Lab File ID: BN035235.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:40 16:15

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.581		-18.5	50.0
Fluoranthene-d10	1.225	0.987		-19.4	50.0
2-Fluorophenol	1.015	1.087		7.1	50.0
Phenol-d6	1.273	1.273		0.0	50.0
Nitrobenzene-d5	0.348	0.189		-45.7	50.0
2-Fluorobiphenyl	1.624	0.255		-84.3	50.0
2,4,6-Tribromophenol	0.289	0.242		-16.3	50.0
Terphenyl-d14	0.839	6.857		717.3	50.0
1,4-Dioxane	0.363	0.381		5.0	50.0

All other compounds must meet a minimum RRF of 0.010.

LAB CHRONICLE

OrderID:	P4868	OrderDate:	11/14/2024 3:41:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4868-01	RW5-SP100-20241114	Water			11/14/24			11/14/24
			Mercury	7470A		11/18/24	11/18/24	
			Metals ICP-TAL	6010D		11/15/24	11/18/24	
P4868-03	RW5-SP303-20241114	Water			11/14/24			11/14/24
			Mercury	7470A		11/18/24	11/18/24	
			Metals ICP-TAL	6010D		11/15/24	11/18/24	

Hit Summary Sheet
SW-846

SDG No.: P4868 **Order ID:** P4868
Client: Tetra Tech NUS, Inc. **Project ID:** CTO WE13

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : RW5-SP100-20241114									
P4868-01	RW5-SP100-20241114	Water	Calcium	3290		33.0	250	1000	ug/L
P4868-01	RW5-SP100-20241114	Water	Chromium	1.94	J	0.66	2.50	5.00	ug/L
P4868-01	RW5-SP100-20241114	Water	Cobalt	2.82	J	0.50	3.75	15.0	ug/L
P4868-01	RW5-SP100-20241114	Water	Iron	1210		18.5	40.0	50.0	ug/L
P4868-01	RW5-SP100-20241114	Water	Lead	6.72		3.51	4.80	6.00	ug/L
P4868-01	RW5-SP100-20241114	Water	Magnesium	1320		39.4	250	1000	ug/L
P4868-01	RW5-SP100-20241114	Water	Manganese	20.0		1.46	2.50	10.0	ug/L
P4868-01	RW5-SP100-20241114	Water	Nickel	4.70	J	0.85	5.00	20.0	ug/L
P4868-01	RW5-SP100-20241114	Water	Sodium	10800		237	500	1000	ug/L
P4868-01	RW5-SP100-20241114	Water	Zinc	14.8	J	1.75	5.00	20.0	ug/L
Client ID : RW5-SP303-20241114									
P4868-03	RW5-SP303-20241114	Water	Calcium	4720		33.0	250	1000	ug/L
P4868-03	RW5-SP303-20241114	Water	Chromium	4.33	J	0.66	2.50	5.00	ug/L
P4868-03	RW5-SP303-20241114	Water	Cobalt	1.62	J	0.50	3.75	15.0	ug/L
P4868-03	RW5-SP303-20241114	Water	Iron	46.5	J	18.5	40.0	50.0	ug/L
P4868-03	RW5-SP303-20241114	Water	Magnesium	1780		39.4	250	1000	ug/L
P4868-03	RW5-SP303-20241114	Water	Manganese	36.2		1.46	2.50	10.0	ug/L
P4868-03	RW5-SP303-20241114	Water	Nickel	2.38	J	0.85	5.00	20.0	ug/L
P4868-03	RW5-SP303-20241114	Water	Potassium	792	J	685	800	1000	ug/L
P4868-03	RW5-SP303-20241114	Water	Sodium	10700		237	500	1000	ug/L
P4868-03	RW5-SP303-20241114	Water	Zinc	9.05	J	1.75	5.00	20.0	ug/L



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/14/24
Project:	CTO WE13	Date Received:	11/14/24
Client Sample ID:	RW5-SP100-20241114	SDG No.:	P4868
Lab Sample ID:	P4868-01	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.
7429-90-5	Aluminum	40.0	U	1	28.3	40.0	50.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-36-0	Antimony	6.25	U	1	2.06	6.25	25.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-38-2	Arsenic	8.00	U	1	3.48	8.00	10.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-39-3	Barium	12.5	U	1	6.28	12.5	50.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-41-7	Beryllium	0.75	U	1	0.13	0.75	3.00	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-43-9	Cadmium	0.75	U	1	0.094	0.75	3.00	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-70-2	Calcium	3290		1	33.0	250	1000	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-47-3	Chromium	1.94	J	1	0.66	2.50	5.00	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-48-4	Cobalt	2.82	J	1	0.50	3.75	15.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-50-8	Copper	8.00	U	1	7.07	8.00	10.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7439-89-6	Iron	1210		1	18.5	40.0	50.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7439-92-1	Lead	6.72		1	3.51	4.80	6.00	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7439-95-4	Magnesium	1320		1	39.4	250	1000	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7439-96-5	Manganese	20.0		1	1.46	2.50	10.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	11/18/24 13:05	11/18/24 15:06	SW7470A	
7440-02-0	Nickel	4.70	J	1	0.85	5.00	20.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-09-7	Potassium	800	U	1	685	800	1000	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7782-49-2	Selenium	8.00	U	1	5.88	8.00	10.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-22-4	Silver	2.50	U	1	0.58	2.50	5.00	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-23-5	Sodium	10800		1	237	500	1000	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-28-0	Thallium	10.0	U	1	2.32	10.0	20.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-62-2	Vanadium	10.0	U	1	3.06	10.0	20.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010
7440-66-6	Zinc	14.8	J	1	1.75	5.00	20.0	ug/L	11/15/24 13:00	11/18/24 16:08	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	METALS-TAL			

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:	11/14/24
Project:	CTO WE13	Date Received:	11/14/24
Client Sample ID:	RW5-SP303-20241114	SDG No.:	P4868
Lab Sample ID:	P4868-03	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.
7429-90-5	Aluminum	40.0	U	1	28.3	40.0	50.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-36-0	Antimony	6.25	U	1	2.06	6.25	25.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-38-2	Arsenic	8.00	U	1	3.48	8.00	10.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-39-3	Barium	12.5	U	1	6.28	12.5	50.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-41-7	Beryllium	0.75	U	1	0.13	0.75	3.00	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-43-9	Cadmium	0.75	U	1	0.094	0.75	3.00	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-70-2	Calcium	4720		1	33.0	250	1000	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-47-3	Chromium	4.33	J	1	0.66	2.50	5.00	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-48-4	Cobalt	1.62	J	1	0.50	3.75	15.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-50-8	Copper	8.00	U	1	7.07	8.00	10.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7439-89-6	Iron	46.5	J	1	18.5	40.0	50.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7439-92-1	Lead	4.80	U	1	3.51	4.80	6.00	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7439-95-4	Magnesium	1780		1	39.4	250	1000	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7439-96-5	Manganese	36.2		1	1.46	2.50	10.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	11/18/24 13:05	11/18/24 15:08	SW7470A	
7440-02-0	Nickel	2.38	J	1	0.85	5.00	20.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-09-7	Potassium	792	J	1	685	800	1000	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7782-49-2	Selenium	8.00	U	1	5.88	8.00	10.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-22-4	Silver	2.50	U	1	0.58	2.50	5.00	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-23-5	Sodium	10700		1	237	500	1000	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-28-0	Thallium	10.0	U	1	2.32	10.0	20.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-62-2	Vanadium	10.0	U	1	3.06	10.0	20.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010
7440-66-6	Zinc	9.05	J	1	1.75	5.00	20.0	ug/L	11/15/24 13:00	11/18/24 16:12	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	METALS-TAL			

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

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868

Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV89	Mercury	3.74	4.0	94	90 - 110	CV	11/18/2024	13:46	LB133490

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868
Initial Calibration Source: EPA
Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Mercury	4.94	5.0	99	90 - 110	CV	11/18/2024	13:53	LB133490
CCV02	Mercury	4.96	5.0	99	90 - 110	CV	11/18/2024	14:26	LB133490
CCV03	Mercury	5.11	5.0	102	90 - 110	CV	11/18/2024	14:59	LB133490
CCV04	Mercury	5.01	5.0	100	90 - 110	CV	11/18/2024	15:22	LB133490

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2680	2500	107	90 - 110	P	11/18/2024	12:57	LB133502
	Antimony	1040	1000	104	90 - 110	P	11/18/2024	12:57	LB133502
	Arsenic	1040	1000	104	90 - 110	P	11/18/2024	12:57	LB133502
	Barium	533	520	102	90 - 110	P	11/18/2024	12:57	LB133502
	Beryllium	521	510	102	90 - 110	P	11/18/2024	12:57	LB133502
	Cadmium	523	510	103	90 - 110	P	11/18/2024	12:57	LB133502
	Calcium	10400	10000	104	90 - 110	P	11/18/2024	12:57	LB133502
	Chromium	554	520	107	90 - 110	P	11/18/2024	12:57	LB133502
	Cobalt	530	520	102	90 - 110	P	11/18/2024	12:57	LB133502
	Copper	544	510	107	90 - 110	P	11/18/2024	12:57	LB133502
	Iron	10500	10000	105	90 - 110	P	11/18/2024	12:57	LB133502
	Lead	1030	1000	104	90 - 110	P	11/18/2024	12:57	LB133502
	Magnesium	6150	6000	102	90 - 110	P	11/18/2024	12:57	LB133502
	Manganese	534	520	103	90 - 110	P	11/18/2024	12:57	LB133502
	Nickel	531	530	100	90 - 110	P	11/18/2024	12:57	LB133502
	Potassium	10400	9900	105	90 - 110	P	11/18/2024	12:57	LB133502
	Selenium	1070	1000	107	90 - 110	P	11/18/2024	12:57	LB133502
	Silver	264	250	106	90 - 110	P	11/18/2024	12:57	LB133502
	Sodium	9990	10000	100	90 - 110	P	11/18/2024	12:57	LB133502
	Thallium	1040	1000	104	90 - 110	P	11/18/2024	12:57	LB133502
	Vanadium	522	500	104	90 - 110	P	11/18/2024	12:57	LB133502
	Zinc	1080	1000	108	90 - 110	P	11/18/2024	12:57	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868

Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	104	100	104	80 - 120	P	11/18/2024	13:11	LB133502
	Antimony	49.6	50.0	99	80 - 120	P	11/18/2024	13:11	LB133502
	Arsenic	18.9	20.0	94	80 - 120	P	11/18/2024	13:11	LB133502
	Barium	101	100	101	80 - 120	P	11/18/2024	13:11	LB133502
	Beryllium	6.06	6.0	101	80 - 120	P	11/18/2024	13:11	LB133502
	Cadmium	6.99	6.0	116	80 - 120	P	11/18/2024	13:11	LB133502
	Calcium	2060	2000	103	80 - 120	P	11/18/2024	13:11	LB133502
	Chromium	10.5	10.0	105	80 - 120	P	11/18/2024	13:11	LB133502
	Cobalt	29.4	30.0	98	80 - 120	P	11/18/2024	13:11	LB133502
	Copper	22.1	20.0	110	80 - 120	P	11/18/2024	13:11	LB133502
	Iron	100	100	100	80 - 120	P	11/18/2024	13:11	LB133502
	Lead	12.1	12.0	101	80 - 120	P	11/18/2024	13:11	LB133502
	Magnesium	2050	2000	102	80 - 120	P	11/18/2024	13:11	LB133502
	Manganese	20.8	20.0	104	80 - 120	P	11/18/2024	13:11	LB133502
	Nickel	39.0	40.0	97	80 - 120	P	11/18/2024	13:11	LB133502
	Potassium	1900	2000	95	80 - 120	P	11/18/2024	13:11	LB133502
	Selenium	20.9	20.0	105	80 - 120	P	11/18/2024	13:11	LB133502
	Silver	10.8	10.0	108	80 - 120	P	11/18/2024	13:11	LB133502
	Sodium	1650	2000	82	80 - 120	P	11/18/2024	13:11	LB133502
	Thallium	39.6	40.0	99	80 - 120	P	11/18/2024	13:11	LB133502
	Vanadium	40.1	40.0	100	80 - 120	P	11/18/2024	13:11	LB133502
	Zinc	43.9	40.0	110	80 - 120	P	11/18/2024	13:11	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868
 Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868
 Initial Calibration Source: EPA
 Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	10100	10000	101	90 - 110	P	11/18/2024	13:52	LB133502
	Antimony	5090	5000	102	90 - 110	P	11/18/2024	13:52	LB133502
	Arsenic	4990	5000	100	90 - 110	P	11/18/2024	13:52	LB133502
	Barium	9590	10000	96	90 - 110	P	11/18/2024	13:52	LB133502
	Beryllium	243	250	97	90 - 110	P	11/18/2024	13:52	LB133502
	Cadmium	2460	2500	98	90 - 110	P	11/18/2024	13:52	LB133502
	Calcium	24300	25000	97	90 - 110	P	11/18/2024	13:52	LB133502
	Chromium	1020	1000	102	90 - 110	P	11/18/2024	13:52	LB133502
	Cobalt	2460	2500	98	90 - 110	P	11/18/2024	13:52	LB133502
	Copper	1270	1250	101	90 - 110	P	11/18/2024	13:52	LB133502
	Iron	4940	5000	99	90 - 110	P	11/18/2024	13:52	LB133502
	Lead	4930	5000	99	90 - 110	P	11/18/2024	13:52	LB133502
	Magnesium	24500	25000	98	90 - 110	P	11/18/2024	13:52	LB133502
	Manganese	2370	2500	95	90 - 110	P	11/18/2024	13:52	LB133502
	Nickel	2460	2500	98	90 - 110	P	11/18/2024	13:52	LB133502
	Potassium	24900	25000	99	90 - 110	P	11/18/2024	13:52	LB133502
	Selenium	5110	5000	102	90 - 110	P	11/18/2024	13:52	LB133502
	Silver	1250	1250	100	90 - 110	P	11/18/2024	13:52	LB133502
	Sodium	24500	25000	98	90 - 110	P	11/18/2024	13:52	LB133502
	Thallium	5140	5000	103	90 - 110	P	11/18/2024	13:52	LB133502
	Vanadium	2470	2500	99	90 - 110	P	11/18/2024	13:52	LB133502
	Zinc	2550	2500	102	90 - 110	P	11/18/2024	13:52	LB133502
CCV02	Aluminum	10200	10000	102	90 - 110	P	11/18/2024	14:31	LB133502
	Antimony	5150	5000	103	90 - 110	P	11/18/2024	14:31	LB133502
	Arsenic	5030	5000	101	90 - 110	P	11/18/2024	14:31	LB133502
	Barium	9540	10000	95	90 - 110	P	11/18/2024	14:31	LB133502
	Beryllium	243	250	97	90 - 110	P	11/18/2024	14:31	LB133502
	Cadmium	2490	2500	100	90 - 110	P	11/18/2024	14:31	LB133502
	Calcium	24500	25000	98	90 - 110	P	11/18/2024	14:31	LB133502
	Chromium	1030	1000	103	90 - 110	P	11/18/2024	14:31	LB133502
	Cobalt	2490	2500	100	90 - 110	P	11/18/2024	14:31	LB133502
	Copper	1280	1250	102	90 - 110	P	11/18/2024	14:31	LB133502
	Iron	4940	5000	99	90 - 110	P	11/18/2024	14:31	LB133502
	Lead	4980	5000	100	90 - 110	P	11/18/2024	14:31	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	24700	25000	99	90 - 110	P	11/18/2024	14:31	LB133502
	Manganese	2370	2500	95	90 - 110	P	11/18/2024	14:31	LB133502
	Nickel	2490	2500	100	90 - 110	P	11/18/2024	14:31	LB133502
	Potassium	25400	25000	102	90 - 110	P	11/18/2024	14:31	LB133502
	Selenium	5160	5000	103	90 - 110	P	11/18/2024	14:31	LB133502
	Silver	1260	1250	100	90 - 110	P	11/18/2024	14:31	LB133502
	Sodium	24400	25000	98	90 - 110	P	11/18/2024	14:31	LB133502
	Thallium	5110	5000	102	90 - 110	P	11/18/2024	14:31	LB133502
	Vanadium	2500	2500	100	90 - 110	P	11/18/2024	14:31	LB133502
	Zinc	2550	2500	102	90 - 110	P	11/18/2024	14:31	LB133502
CCV03	Aluminum	10000	10000	100	90 - 110	P	11/18/2024	15:35	LB133502
	Antimony	5130	5000	102	90 - 110	P	11/18/2024	15:35	LB133502
	Arsenic	5000	5000	100	90 - 110	P	11/18/2024	15:35	LB133502
	Barium	9430	10000	94	90 - 110	P	11/18/2024	15:35	LB133502
	Beryllium	239	250	96	90 - 110	P	11/18/2024	15:35	LB133502
	Cadmium	2450	2500	98	90 - 110	P	11/18/2024	15:35	LB133502
	Calcium	23900	25000	96	90 - 110	P	11/18/2024	15:35	LB133502
	Chromium	1020	1000	102	90 - 110	P	11/18/2024	15:35	LB133502
	Cobalt	2450	2500	98	90 - 110	P	11/18/2024	15:35	LB133502
	Copper	1270	1250	101	90 - 110	P	11/18/2024	15:35	LB133502
	Iron	4850	5000	97	90 - 110	P	11/18/2024	15:35	LB133502
	Lead	4910	5000	98	90 - 110	P	11/18/2024	15:35	LB133502
	Magnesium	24100	25000	96	90 - 110	P	11/18/2024	15:35	LB133502
	Manganese	2320	2500	93	90 - 110	P	11/18/2024	15:35	LB133502
	Nickel	2450	2500	98	90 - 110	P	11/18/2024	15:35	LB133502
	Potassium	24900	25000	100	90 - 110	P	11/18/2024	15:35	LB133502
	Selenium	5130	5000	103	90 - 110	P	11/18/2024	15:35	LB133502
	Silver	1240	1250	100	90 - 110	P	11/18/2024	15:35	LB133502
	Sodium	24100	25000	96	90 - 110	P	11/18/2024	15:35	LB133502
	Thallium	5000	5000	100	90 - 110	P	11/18/2024	15:35	LB133502
	Vanadium	2450	2500	98	90 - 110	P	11/18/2024	15:35	LB133502
	Zinc	2550	2500	102	90 - 110	P	11/18/2024	15:35	LB133502
CCV04	Aluminum	10000	10000	100	90 - 110	P	11/18/2024	16:25	LB133502
	Antimony	5140	5000	103	90 - 110	P	11/18/2024	16:25	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	5020	5000	100	90 - 110	P	11/18/2024	16:25	LB133502
	Barium	9440	10000	94	90 - 110	P	11/18/2024	16:25	LB133502
	Beryllium	241	250	96	90 - 110	P	11/18/2024	16:25	LB133502
	Cadmium	2460	2500	98	90 - 110	P	11/18/2024	16:25	LB133502
	Calcium	24000	25000	96	90 - 110	P	11/18/2024	16:25	LB133502
	Chromium	1030	1000	103	90 - 110	P	11/18/2024	16:25	LB133502
	Cobalt	2450	2500	98	90 - 110	P	11/18/2024	16:25	LB133502
	Copper	1270	1250	102	90 - 110	P	11/18/2024	16:25	LB133502
	Iron	4880	5000	98	90 - 110	P	11/18/2024	16:25	LB133502
	Lead	4910	5000	98	90 - 110	P	11/18/2024	16:25	LB133502
	Magnesium	24400	25000	97	90 - 110	P	11/18/2024	16:25	LB133502
	Manganese	2310	2500	92	90 - 110	P	11/18/2024	16:25	LB133502
	Nickel	2450	2500	98	90 - 110	P	11/18/2024	16:25	LB133502
	Potassium	24900	25000	100	90 - 110	P	11/18/2024	16:25	LB133502
	Selenium	5210	5000	104	90 - 110	P	11/18/2024	16:25	LB133502
	Silver	1260	1250	101	90 - 110	P	11/18/2024	16:25	LB133502
	Sodium	24000	25000	96	90 - 110	P	11/18/2024	16:25	LB133502
	Thallium	5310	5000	106	90 - 110	P	11/18/2024	16:25	LB133502
	Vanadium	2460	2500	98	90 - 110	P	11/18/2024	16:25	LB133502
	Zinc	2570	2500	103	90 - 110	P	11/18/2024	16:25	LB133502
CCV05	Aluminum	10200	10000	102	90 - 110	P	11/18/2024	17:01	LB133502
	Antimony	5270	5000	105	90 - 110	P	11/18/2024	17:01	LB133502
	Arsenic	5120	5000	102	90 - 110	P	11/18/2024	17:01	LB133502
	Barium	9720	10000	97	90 - 110	P	11/18/2024	17:01	LB133502
	Beryllium	246	250	98	90 - 110	P	11/18/2024	17:01	LB133502
	Cadmium	2500	2500	100	90 - 110	P	11/18/2024	17:01	LB133502
	Calcium	24400	25000	98	90 - 110	P	11/18/2024	17:01	LB133502
	Chromium	1040	1000	104	90 - 110	P	11/18/2024	17:01	LB133502
	Cobalt	2500	2500	100	90 - 110	P	11/18/2024	17:01	LB133502
	Copper	1300	1250	104	90 - 110	P	11/18/2024	17:01	LB133502
	Iron	4970	5000	99	90 - 110	P	11/18/2024	17:01	LB133502
	Lead	5000	5000	100	90 - 110	P	11/18/2024	17:01	LB133502
	Magnesium	24700	25000	99	90 - 110	P	11/18/2024	17:01	LB133502
	Manganese	2370	2500	95	90 - 110	P	11/18/2024	17:01	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2500	2500	100	90 - 110	P	11/18/2024	17:01	LB133502
	Potassium	25600	25000	102	90 - 110	P	11/18/2024	17:01	LB133502
	Selenium	5040	5000	101	90 - 110	P	11/18/2024	17:01	LB133502
	Silver	1280	1250	102	90 - 110	P	11/18/2024	17:01	LB133502
	Sodium	25200	25000	101	90 - 110	P	11/18/2024	17:01	LB133502
	Thallium	5140	5000	103	90 - 110	P	11/18/2024	17:01	LB133502
	Vanadium	2510	2500	100	90 - 110	P	11/18/2024	17:01	LB133502
	Zinc	2550	2500	102	90 - 110	P	11/18/2024	17:01	LB133502
CCV06	Aluminum	10100	10000	101	90 - 110	P	11/18/2024	18:04	LB133502
	Antimony	5200	5000	104	90 - 110	P	11/18/2024	18:04	LB133502
	Arsenic	5080	5000	102	90 - 110	P	11/18/2024	18:04	LB133502
	Barium	9550	10000	96	90 - 110	P	11/18/2024	18:04	LB133502
	Beryllium	245	250	98	90 - 110	P	11/18/2024	18:04	LB133502
	Cadmium	2490	2500	100	90 - 110	P	11/18/2024	18:04	LB133502
	Calcium	24400	25000	97	90 - 110	P	11/18/2024	18:04	LB133502
	Chromium	1040	1000	104	90 - 110	P	11/18/2024	18:04	LB133502
	Cobalt	2490	2500	100	90 - 110	P	11/18/2024	18:04	LB133502
	Copper	1280	1250	102	90 - 110	P	11/18/2024	18:04	LB133502
	Iron	4960	5000	99	90 - 110	P	11/18/2024	18:04	LB133502
	Lead	4980	5000	100	90 - 110	P	11/18/2024	18:04	LB133502
	Magnesium	24600	25000	98	90 - 110	P	11/18/2024	18:04	LB133502
	Manganese	2360	2500	94	90 - 110	P	11/18/2024	18:04	LB133502
	Nickel	2490	2500	99	90 - 110	P	11/18/2024	18:04	LB133502
	Potassium	25300	25000	101	90 - 110	P	11/18/2024	18:04	LB133502
	Selenium	4980	5000	100	90 - 110	P	11/18/2024	18:04	LB133502
	Silver	1270	1250	102	90 - 110	P	11/18/2024	18:04	LB133502
	Sodium	24700	25000	99	90 - 110	P	11/18/2024	18:04	LB133502
	Thallium	5170	5000	104	90 - 110	P	11/18/2024	18:04	LB133502
	Vanadium	2490	2500	100	90 - 110	P	11/18/2024	18:04	LB133502
	Zinc	2570	2500	103	90 - 110	P	11/18/2024	18:04	LB133502
CCV07	Aluminum	10500	10000	105	90 - 110	P	11/18/2024	18:54	LB133502
	Antimony	5440	5000	109	90 - 110	P	11/18/2024	18:54	LB133502
	Arsenic	5290	5000	106	90 - 110	P	11/18/2024	18:54	LB133502
	Barium	9680	10000	97	90 - 110	P	11/18/2024	18:54	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Beryllium	251	250	100	90 - 110	P	11/18/2024	18:54	LB133502
	Cadmium	2570	2500	103	90 - 110	P	11/18/2024	18:54	LB133502
	Calcium	25000	25000	100	90 - 110	P	11/18/2024	18:54	LB133502
	Chromium	1070	1000	107	90 - 110	P	11/18/2024	18:54	LB133502
	Cobalt	2570	2500	103	90 - 110	P	11/18/2024	18:54	LB133502
	Copper	1330	1250	106	90 - 110	P	11/18/2024	18:54	LB133502
	Iron	5050	5000	101	90 - 110	P	11/18/2024	18:54	LB133502
	Lead	5140	5000	103	90 - 110	P	11/18/2024	18:54	LB133502
	Magnesium	25300	25000	101	90 - 110	P	11/18/2024	18:54	LB133502
	Manganese	2410	2500	96	90 - 110	P	11/18/2024	18:54	LB133502
	Nickel	2560	2500	103	90 - 110	P	11/18/2024	18:54	LB133502
	Potassium	25800	25000	103	90 - 110	P	11/18/2024	18:54	LB133502
	Selenium	5260	5000	105	90 - 110	P	11/18/2024	18:54	LB133502
	Silver	1300	1250	104	90 - 110	P	11/18/2024	18:54	LB133502
	Sodium	24400	25000	97	90 - 110	P	11/18/2024	18:54	LB133502
	Thallium	5370	5000	108	90 - 110	P	11/18/2024	18:54	LB133502
	Vanadium	2570	2500	103	90 - 110	P	11/18/2024	18:54	LB133502
	Zinc	2650	2500	106	90 - 110	P	11/18/2024	18:54	LB133502

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2680	2500	107	90 - 110	P	11/20/2024	12:50	LB133540
	Antimony	1020	1000	102	90 - 110	P	11/20/2024	12:50	LB133540
	Arsenic	1040	1000	104	90 - 110	P	11/20/2024	12:50	LB133540
	Barium	535	520	103	90 - 110	P	11/20/2024	12:50	LB133540
	Beryllium	528	510	104	90 - 110	P	11/20/2024	12:50	LB133540
	Cadmium	529	510	104	90 - 110	P	11/20/2024	12:50	LB133540
	Calcium	10500	10000	105	90 - 110	P	11/20/2024	12:50	LB133540
	Chromium	548	520	106	90 - 110	P	11/20/2024	12:50	LB133540
	Cobalt	532	520	102	90 - 110	P	11/20/2024	12:50	LB133540
	Copper	546	510	107	90 - 110	P	11/20/2024	12:50	LB133540
	Iron	10400	10000	104	90 - 110	P	11/20/2024	12:50	LB133540
	Lead	1050	1000	105	90 - 110	P	11/20/2024	12:50	LB133540
	Magnesium	6200	6000	103	90 - 110	P	11/20/2024	12:50	LB133540
	Manganese	540	520	104	90 - 110	P	11/20/2024	12:50	LB133540
	Nickel	535	530	101	90 - 110	P	11/20/2024	12:50	LB133540
	Potassium	10300	9900	104	90 - 110	P	11/20/2024	12:50	LB133540
	Selenium	1070	1000	107	90 - 110	P	11/20/2024	12:50	LB133540
	Silver	267	250	107	90 - 110	P	11/20/2024	12:50	LB133540
	Sodium	9880	10000	99	90 - 110	P	11/20/2024	12:50	LB133540
	Thallium	1090	1000	109	90 - 110	P	11/20/2024	12:50	LB133540
	Vanadium	523	500	105	90 - 110	P	11/20/2024	12:50	LB133540
	Zinc	1090	1000	109	90 - 110	P	11/20/2024	12:50	LB133540

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868
 Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868
 Initial Calibration Source: EPA
 Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	101	100	101	80 - 120	P	11/20/2024	12:59	LB133540
	Antimony	48.0	50.0	96	80 - 120	P	11/20/2024	12:59	LB133540
	Arsenic	17.6	20.0	88	80 - 120	P	11/20/2024	12:59	LB133540
	Barium	95.0	100	95	80 - 120	P	11/20/2024	12:59	LB133540
	Beryllium	5.41	6.0	90	80 - 120	P	11/20/2024	12:59	LB133540
	Cadmium	6.86	6.0	114	80 - 120	P	11/20/2024	12:59	LB133540
	Calcium	1940	2000	97	80 - 120	P	11/20/2024	12:59	LB133540
	Chromium	10.0	10.0	100	80 - 120	P	11/20/2024	12:59	LB133540
	Cobalt	28.3	30.0	94	80 - 120	P	11/20/2024	12:59	LB133540
	Copper	21.0	20.0	105	80 - 120	P	11/20/2024	12:59	LB133540
	Iron	91.6	100	92	80 - 120	P	11/20/2024	12:59	LB133540
	Lead	11.5	12.0	96	80 - 120	P	11/20/2024	12:59	LB133540
	Magnesium	1910	2000	96	80 - 120	P	11/20/2024	12:59	LB133540
	Manganese	19.3	20.0	96	80 - 120	P	11/20/2024	12:59	LB133540
	Nickel	37.3	40.0	93	80 - 120	P	11/20/2024	12:59	LB133540
	Potassium	1790	2000	90	80 - 120	P	11/20/2024	12:59	LB133540
	Selenium	16.0	20.0	80	80 - 120	P	11/20/2024	12:59	LB133540
	Silver	10.1	10.0	101	80 - 120	P	11/20/2024	12:59	LB133540
	Sodium	1620	2000	81	80 - 120	P	11/20/2024	12:59	LB133540
	Thallium	36.9	40.0	92	80 - 120	P	11/20/2024	12:59	LB133540
	Vanadium	38.5	40.0	96	80 - 120	P	11/20/2024	12:59	LB133540
	Zinc	41.3	40.0	103	80 - 120	P	11/20/2024	12:59	LB133540

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	10000	10000	100	90 - 110	P	11/20/2024	13:35	LB133540
	Antimony	5020	5000	100	90 - 110	P	11/20/2024	13:35	LB133540
	Arsenic	4940	5000	99	90 - 110	P	11/20/2024	13:35	LB133540
	Barium	9530	10000	95	90 - 110	P	11/20/2024	13:35	LB133540
	Beryllium	241	250	96	90 - 110	P	11/20/2024	13:35	LB133540
	Cadmium	2440	2500	98	90 - 110	P	11/20/2024	13:35	LB133540
	Calcium	24200	25000	97	90 - 110	P	11/20/2024	13:35	LB133540
	Chromium	1020	1000	102	90 - 110	P	11/20/2024	13:35	LB133540
	Cobalt	2460	2500	98	90 - 110	P	11/20/2024	13:35	LB133540
	Copper	1270	1250	101	90 - 110	P	11/20/2024	13:35	LB133540
	Iron	4930	5000	99	90 - 110	P	11/20/2024	13:35	LB133540
	Lead	4920	5000	98	90 - 110	P	11/20/2024	13:35	LB133540
	Magnesium	24300	25000	97	90 - 110	P	11/20/2024	13:35	LB133540
	Manganese	2360	2500	94	90 - 110	P	11/20/2024	13:35	LB133540
	Nickel	2460	2500	99	90 - 110	P	11/20/2024	13:35	LB133540
	Potassium	25400	25000	102	90 - 110	P	11/20/2024	13:35	LB133540
	Selenium	5030	5000	101	90 - 110	P	11/20/2024	13:35	LB133540
	Silver	1250	1250	100	90 - 110	P	11/20/2024	13:35	LB133540
	Sodium	24700	25000	99	90 - 110	P	11/20/2024	13:35	LB133540
	Thallium	4950	5000	99	90 - 110	P	11/20/2024	13:35	LB133540
CCV02	Vanadium	2460	2500	98	90 - 110	P	11/20/2024	13:35	LB133540
	Zinc	2570	2500	103	90 - 110	P	11/20/2024	13:35	LB133540
	Aluminum	9020	10000	90	90 - 110	P	11/20/2024	14:50	LB133540
	Antimony	5460	5000	109	90 - 110	P	11/20/2024	14:50	LB133540
	Arsenic	5460	5000	109	90 - 110	P	11/20/2024	14:50	LB133540
	Barium	9550	10000	96	90 - 110	P	11/20/2024	14:50	LB133540
	Beryllium	260	250	104	90 - 110	P	11/20/2024	14:50	LB133540
	Cadmium	2610	2500	104	90 - 110	P	11/20/2024	14:50	LB133540
	Calcium	27000	25000	108	90 - 110	P	11/20/2024	14:50	LB133540
	Chromium	905	1000	90	90 - 110	P	11/20/2024	14:50	LB133540
	Cobalt	2540	2500	102	90 - 110	P	11/20/2024	14:50	LB133540
	Copper	1300	1250	104	90 - 110	P	11/20/2024	14:50	LB133540
	Iron	5120	5000	102	90 - 110	P	11/20/2024	14:50	LB133540
	Lead	5120	5000	102	90 - 110	P	11/20/2024	14:50	LB133540

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	23800	25000	95	90 - 110	P	11/20/2024	14:50	LB133540
	Manganese	2700	2500	108	90 - 110	P	11/20/2024	14:50	LB133540
	Nickel	2460	2500	98	90 - 110	P	11/20/2024	14:50	LB133540
	Potassium	27300	25000	109	90 - 110	P	11/20/2024	14:50	LB133540
	Selenium	4620	5000	92	90 - 110	P	11/20/2024	14:50	LB133540
	Silver	1290	1250	103	90 - 110	P	11/20/2024	14:50	LB133540
	Sodium	26700	25000	107	90 - 110	P	11/20/2024	14:50	LB133540
	Thallium	4920	5000	98	90 - 110	P	11/20/2024	14:50	LB133540
	Vanadium	2560	2500	102	90 - 110	P	11/20/2024	14:50	LB133540
	Zinc	2280	2500	91	90 - 110	P	11/20/2024	14:50	LB133540
CCV03	Aluminum	9540	10000	95	90 - 110	P	11/20/2024	16:48	LB133540
	Antimony	4680	5000	94	90 - 110	P	11/20/2024	16:48	LB133540
	Arsenic	4610	5000	92	90 - 110	P	11/20/2024	16:48	LB133540
	Barium	9040	10000	90	90 - 110	P	11/20/2024	16:48	LB133540
	Beryllium	237	250	95	90 - 110	P	11/20/2024	16:48	LB133540
	Cadmium	2300	2500	92	90 - 110	P	11/20/2024	16:48	LB133540
	Calcium	23200	25000	93	90 - 110	P	11/20/2024	16:48	LB133540
	Chromium	971	1000	97	90 - 110	P	11/20/2024	16:48	LB133540
	Cobalt	2300	2500	92	90 - 110	P	11/20/2024	16:48	LB133540
	Copper	1180	1250	94	90 - 110	P	11/20/2024	16:48	LB133540
	Iron	4610	5000	92	90 - 110	P	11/20/2024	16:48	LB133540
	Lead	4640	5000	93	90 - 110	P	11/20/2024	16:48	LB133540
	Magnesium	23400	25000	94	90 - 110	P	11/20/2024	16:48	LB133540
	Manganese	2250	2500	90	90 - 110	P	11/20/2024	16:48	LB133540
	Nickel	2300	2500	92	90 - 110	P	11/20/2024	16:48	LB133540
	Potassium	23700	25000	95	90 - 110	P	11/20/2024	16:48	LB133540
	Selenium	4720	5000	94	90 - 110	P	11/20/2024	16:48	LB133540
	Silver	1200	1250	96	90 - 110	P	11/20/2024	16:48	LB133540
	Sodium	22800	25000	91	90 - 110	P	11/20/2024	16:48	LB133540
	Thallium	4610	5000	92	90 - 110	P	11/20/2024	16:48	LB133540
	Vanadium	2350	2500	94	90 - 110	P	11/20/2024	16:48	LB133540
	Zinc	2430	2500	97	90 - 110	P	11/20/2024	16:48	LB133540

Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868
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	Aluminum	107	100	107	40 - 160	P	11/18/2024	13:20	LB133502
	Antimony	51.5	50.0	103	40 - 160	P	11/18/2024	13:20	LB133502
	Arsenic	19.8	20.0	99	40 - 160	P	11/18/2024	13:20	LB133502
	Barium	98.9	100	99	40 - 160	P	11/18/2024	13:20	LB133502
	Beryllium	5.98	6.0	100	40 - 160	P	11/18/2024	13:20	LB133502
	Cadmium	7.02	6.0	117	40 - 160	P	11/18/2024	13:20	LB133502
	Calcium	2040	2000	102	40 - 160	P	11/18/2024	13:20	LB133502
	Chromium	10.5	10.0	105	40 - 160	P	11/18/2024	13:20	LB133502
	Cobalt	29.7	30.0	99	40 - 160	P	11/18/2024	13:20	LB133502
	Copper	22.7	20.0	113	40 - 160	P	11/18/2024	13:20	LB133502
	Iron	99.2	100	99	40 - 160	P	11/18/2024	13:20	LB133502
	Lead	11.7	12.0	97	40 - 160	P	11/18/2024	13:20	LB133502
	Magnesium	2030	2000	102	40 - 160	P	11/18/2024	13:20	LB133502
	Manganese	20.0	20.0	100	40 - 160	P	11/18/2024	13:20	LB133502
	Nickel	39.4	40.0	98	40 - 160	P	11/18/2024	13:20	LB133502
	Potassium	1920	2000	96	40 - 160	P	11/18/2024	13:20	LB133502
	Selenium	21.8	20.0	109	40 - 160	P	11/18/2024	13:20	LB133502
	Silver	11.0	10.0	110	40 - 160	P	11/18/2024	13:20	LB133502
	Sodium	1640	2000	82	40 - 160	P	11/18/2024	13:20	LB133502
	Thallium	40.7	40.0	102	40 - 160	P	11/18/2024	13:20	LB133502
	Vanadium	41.7	40.0	104	40 - 160	P	11/18/2024	13:20	LB133502
	Zinc	44.6	40.0	111	40 - 160	P	11/18/2024	13:20	LB133502
CRA	Mercury	0.17	0.2	86	40 - 160	CV	11/18/2024	14:00	LB133490
CRI01	Aluminum	112	100	112	40 - 160	P	11/20/2024	13:13	LB133540
	Antimony	50.5	50.0	101	40 - 160	P	11/20/2024	13:13	LB133540
	Arsenic	21.2	20.0	106	40 - 160	P	11/20/2024	13:13	LB133540
	Barium	99.7	100	100	40 - 160	P	11/20/2024	13:13	LB133540
	Beryllium	5.83	6.0	97	40 - 160	P	11/20/2024	13:13	LB133540
	Cadmium	7.32	6.0	122	40 - 160	P	11/20/2024	13:13	LB133540
	Calcium	2060	2000	103	40 - 160	P	11/20/2024	13:13	LB133540
	Chromium	10.5	10.0	105	40 - 160	P	11/20/2024	13:13	LB133540
	Cobalt	29.8	30.0	99	40 - 160	P	11/20/2024	13:13	LB133540
	Copper	22.6	20.0	113	40 - 160	P	11/20/2024	13:13	LB133540
	Iron	98.8	100	99	40 - 160	P	11/20/2024	13:13	LB133540
	Lead	12.4	12.0	104	40 - 160	P	11/20/2024	13:13	LB133540

Metals
- 2b -
CRDL STANDARD FOR AA & ICP

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868

Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868

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	Magnesium	2040	2000	102	40 - 160	P	11/20/2024	13:13	LB133540
	Manganese	20.5	20.0	103	40 - 160	P	11/20/2024	13:13	LB133540
	Nickel	39.4	40.0	98	40 - 160	P	11/20/2024	13:13	LB133540
	Potassium	1900	2000	95	40 - 160	P	11/20/2024	13:13	LB133540
	Selenium	15.8	20.0	79	40 - 160	P	11/20/2024	13:13	LB133540
	Silver	11.0	10.0	110	40 - 160	P	11/20/2024	13:13	LB133540
	Sodium	1700	2000	85	40 - 160	P	11/20/2024	13:13	LB133540
	Thallium	38.0	40.0	95	40 - 160	P	11/20/2024	13:13	LB133540
	Vanadium	41.1	40.0	103	40 - 160	P	11/20/2024	13:13	LB133540
	Zinc	44.1	40.0	110	40 - 160	P	11/20/2024	13:13	LB133540



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

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	Tetra Tech NUS, Inc.				SDG No.:	P4868				
Contract:	TETR06	Lab Code:	CHEM	Case No.:	P4868	SAS No.:	P4868			
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB89	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	11/18/2024	13:48	LB133490

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	11/18/2024	13:58	LB133490
CCB02	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	11/18/2024	14:28	LB133490
CCB03	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	11/18/2024	15:01	LB133490
CCB04	Mercury	0.089	+/-0.20	J	0.16	0.20	CV	11/18/2024	15:24	LB133490

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	80.0	100	P	11/18/2024	13:15	LB133502
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/18/2024	13:15	LB133502
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	13:15	LB133502
	Barium	100	+/-100	U	25.0	100	P	11/18/2024	13:15	LB133502
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	13:15	LB133502
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	13:15	LB133502
	Calcium	2000	+/-2000	U	500	2000	P	11/18/2024	13:15	LB133502
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	13:15	LB133502
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/18/2024	13:15	LB133502
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	13:15	LB133502
	Iron	100	+/-100	U	80.0	100	P	11/18/2024	13:15	LB133502
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/18/2024	13:15	LB133502
	Magnesium	2000	+/-2000	U	500	2000	P	11/18/2024	13:15	LB133502
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/18/2024	13:15	LB133502
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	13:15	LB133502
	Potassium	2000	+/-2000	U	1600	2000	P	11/18/2024	13:15	LB133502
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	13:15	LB133502
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	13:15	LB133502
	Sodium	2000	+/-2000	U	1000	2000	P	11/18/2024	13:15	LB133502
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	13:15	LB133502
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	13:15	LB133502
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	13:15	LB133502

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	80.0	100	P	11/18/2024	14:02	LB133502
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/18/2024	14:02	LB133502
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	14:02	LB133502
	Barium	100	+/-100	U	25.0	100	P	11/18/2024	14:02	LB133502
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	14:02	LB133502
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	14:02	LB133502
	Calcium	2000	+/-2000	U	500	2000	P	11/18/2024	14:02	LB133502
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	14:02	LB133502
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/18/2024	14:02	LB133502
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	14:02	LB133502
	Iron	100	+/-100	U	80.0	100	P	11/18/2024	14:02	LB133502
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/18/2024	14:02	LB133502
	Magnesium	2000	+/-2000	U	500	2000	P	11/18/2024	14:02	LB133502
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/18/2024	14:02	LB133502
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	14:02	LB133502
	Potassium	2000	+/-2000	U	1600	2000	P	11/18/2024	14:02	LB133502
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	14:02	LB133502
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	14:02	LB133502
	Sodium	2000	+/-2000	U	1000	2000	P	11/18/2024	14:02	LB133502
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	14:02	LB133502
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	14:02	LB133502
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	14:02	LB133502
CCB02	Aluminum	100	+/-100	U	80.0	100	P	11/18/2024	14:35	LB133502
	Antimony	4.42	+/-50.0	J	12.5	50.0	P	11/18/2024	14:35	LB133502
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	14:35	LB133502
	Barium	18.0	+/-100	J	25.0	100	P	11/18/2024	14:35	LB133502
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	14:35	LB133502
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	14:35	LB133502
	Calcium	2000	+/-2000	U	500	2000	P	11/18/2024	14:35	LB133502
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	14:35	LB133502
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/18/2024	14:35	LB133502
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	14:35	LB133502
	Iron	100	+/-100	U	80.0	100	P	11/18/2024	14:35	LB133502
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/18/2024	14:35	LB133502
	Magnesium	2000	+/-2000	U	500	2000	P	11/18/2024	14:35	LB133502
	Manganese	5.73	+/-20.0	J	5.00	20.0	P	11/18/2024	14:35	LB133502
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	14:35	LB133502
	Potassium	2000	+/-2000	U	1600	2000	P	11/18/2024	14:35	LB133502
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	14:35	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc.		SDG No.: P4868								
Contract: TETR06	Lab Code: CHEM	Case No.: P4868	SAS No.: P4868							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	14:35	LB133502
	Sodium	2000	+/-2000	U	1000	2000	P	11/18/2024	14:35	LB133502
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	14:35	LB133502
	Vanadium	6.17	+/-40.0	J	20.0	40.0	P	11/18/2024	14:35	LB133502
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	14:35	LB133502
CCB03	Aluminum	100	+/-100	U	80.0	100	P	11/18/2024	15:39	LB133502
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/18/2024	15:39	LB133502
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	15:39	LB133502
	Barium	100	+/-100	U	25.0	100	P	11/18/2024	15:39	LB133502
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	15:39	LB133502
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	15:39	LB133502
	Calcium	2000	+/-2000	U	500	2000	P	11/18/2024	15:39	LB133502
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	15:39	LB133502
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/18/2024	15:39	LB133502
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	15:39	LB133502
	Iron	100	+/-100	U	80.0	100	P	11/18/2024	15:39	LB133502
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/18/2024	15:39	LB133502
	Magnesium	2000	+/-2000	U	500	2000	P	11/18/2024	15:39	LB133502
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/18/2024	15:39	LB133502
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	15:39	LB133502
	Potassium	2000	+/-2000	U	1600	2000	P	11/18/2024	15:39	LB133502
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	15:39	LB133502
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	15:39	LB133502
	Sodium	2000	+/-2000	U	1000	2000	P	11/18/2024	15:39	LB133502
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	15:39	LB133502
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	15:39	LB133502
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	15:39	LB133502
CCB04	Aluminum	100	+/-100	U	80.0	100	P	11/18/2024	16:29	LB133502
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/18/2024	16:29	LB133502
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	16:29	LB133502
	Barium	100	+/-100	U	25.0	100	P	11/18/2024	16:29	LB133502
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	16:29	LB133502
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	16:29	LB133502
	Calcium	2000	+/-2000	U	500	2000	P	11/18/2024	16:29	LB133502
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	16:29	LB133502
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/18/2024	16:29	LB133502
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	16:29	LB133502
	Iron	100	+/-100	U	80.0	100	P	11/18/2024	16:29	LB133502
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/18/2024	16:29	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc.		SDG No.: P4868								
Contract: TETR06	Lab Code: CHEM	Case No.: P4868	SAS No.: P4868							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	500	2000	P	11/18/2024	16:29	LB133502
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/18/2024	16:29	LB133502
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	16:29	LB133502
	Potassium	2000	+/-2000	U	1600	2000	P	11/18/2024	16:29	LB133502
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	16:29	LB133502
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	16:29	LB133502
	Sodium	2000	+/-2000	U	1000	2000	P	11/18/2024	16:29	LB133502
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	16:29	LB133502
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	16:29	LB133502
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	16:29	LB133502
CCB05	Aluminum	100	+/-100	U	80.0	100	P	11/18/2024	17:06	LB133502
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/18/2024	17:06	LB133502
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	17:06	LB133502
	Barium	100	+/-100	U	25.0	100	P	11/18/2024	17:06	LB133502
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	17:06	LB133502
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	17:06	LB133502
	Calcium	2000	+/-2000	U	500	2000	P	11/18/2024	17:06	LB133502
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	17:06	LB133502
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/18/2024	17:06	LB133502
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	17:06	LB133502
	Iron	100	+/-100	U	80.0	100	P	11/18/2024	17:06	LB133502
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/18/2024	17:06	LB133502
	Magnesium	2000	+/-2000	U	500	2000	P	11/18/2024	17:06	LB133502
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/18/2024	17:06	LB133502
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	17:06	LB133502
	Potassium	2000	+/-2000	U	1600	2000	P	11/18/2024	17:06	LB133502
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	17:06	LB133502
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	17:06	LB133502
	Sodium	2000	+/-2000	U	1000	2000	P	11/18/2024	17:06	LB133502
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	17:06	LB133502
CCB06	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	17:06	LB133502
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	17:06	LB133502
	Aluminum	100	+/-100	U	80.0	100	P	11/18/2024	18:08	LB133502
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/18/2024	18:08	LB133502
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	18:08	LB133502
	Barium	100	+/-100	U	25.0	100	P	11/18/2024	18:08	LB133502
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	18:08	LB133502
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	18:08	LB133502
	Calcium	2000	+/-2000	U	500	2000	P	11/18/2024	18:08	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	18:08	LB133502
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/18/2024	18:08	LB133502
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	18:08	LB133502
	Iron	100	+/-100	U	80.0	100	P	11/18/2024	18:08	LB133502
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/18/2024	18:08	LB133502
	Magnesium	2000	+/-2000	U	500	2000	P	11/18/2024	18:08	LB133502
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/18/2024	18:08	LB133502
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	18:08	LB133502
	Potassium	2000	+/-2000	U	1600	2000	P	11/18/2024	18:08	LB133502
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	18:08	LB133502
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	18:08	LB133502
	Sodium	2000	+/-2000	U	1000	2000	P	11/18/2024	18:08	LB133502
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	18:08	LB133502
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	18:08	LB133502
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	18:08	LB133502
CCB07	Aluminum	100	+/-100	U	80.0	100	P	11/18/2024	18:58	LB133502
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/18/2024	18:58	LB133502
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	18:58	LB133502
	Barium	100	+/-100	U	25.0	100	P	11/18/2024	18:58	LB133502
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	18:58	LB133502
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/18/2024	18:58	LB133502
	Calcium	2000	+/-2000	U	500	2000	P	11/18/2024	18:58	LB133502
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	18:58	LB133502
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/18/2024	18:58	LB133502
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	18:58	LB133502
	Iron	100	+/-100	U	80.0	100	P	11/18/2024	18:58	LB133502
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/18/2024	18:58	LB133502
	Magnesium	2000	+/-2000	U	500	2000	P	11/18/2024	18:58	LB133502
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/18/2024	18:58	LB133502
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	18:58	LB133502
	Potassium	2000	+/-2000	U	1600	2000	P	11/18/2024	18:58	LB133502
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/18/2024	18:58	LB133502
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/18/2024	18:58	LB133502
	Sodium	2000	+/-2000	U	1000	2000	P	11/18/2024	18:58	LB133502
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	18:58	LB133502
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/18/2024	18:58	LB133502
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/18/2024	18:58	LB133502

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	80.0	100	P	11/20/2024	13:09	LB133540
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/20/2024	13:09	LB133540
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	13:09	LB133540
	Barium	100	+/-100	U	25.0	100	P	11/20/2024	13:09	LB133540
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/20/2024	13:09	LB133540
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/20/2024	13:09	LB133540
	Calcium	2000	+/-2000	U	500	2000	P	11/20/2024	13:09	LB133540
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/20/2024	13:09	LB133540
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/20/2024	13:09	LB133540
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	13:09	LB133540
	Iron	100	+/-100	U	80.0	100	P	11/20/2024	13:09	LB133540
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/20/2024	13:09	LB133540
	Magnesium	2000	+/-2000	U	500	2000	P	11/20/2024	13:09	LB133540
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/20/2024	13:09	LB133540
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/20/2024	13:09	LB133540
	Potassium	2000	+/-2000	U	1600	2000	P	11/20/2024	13:09	LB133540
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	13:09	LB133540
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/20/2024	13:09	LB133540
	Sodium	2000	+/-2000	U	1000	2000	P	11/20/2024	13:09	LB133540
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/20/2024	13:09	LB133540
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/20/2024	13:09	LB133540
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/20/2024	13:09	LB133540

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	80.0	100	P	11/20/2024	13:46	LB133540
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/20/2024	13:46	LB133540
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	13:46	LB133540
	Barium	100	+/-100	U	25.0	100	P	11/20/2024	13:46	LB133540
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/20/2024	13:46	LB133540
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/20/2024	13:46	LB133540
	Calcium	2000	+/-2000	U	500	2000	P	11/20/2024	13:46	LB133540
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/20/2024	13:46	LB133540
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/20/2024	13:46	LB133540
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	13:46	LB133540
	Iron	100	+/-100	U	80.0	100	P	11/20/2024	13:46	LB133540
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/20/2024	13:46	LB133540
	Magnesium	2000	+/-2000	U	500	2000	P	11/20/2024	13:46	LB133540
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/20/2024	13:46	LB133540
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/20/2024	13:46	LB133540
	Potassium	2000	+/-2000	U	1600	2000	P	11/20/2024	13:46	LB133540
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	13:46	LB133540
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/20/2024	13:46	LB133540
	Sodium	2000	+/-2000	U	1000	2000	P	11/20/2024	13:46	LB133540
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/20/2024	13:46	LB133540
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/20/2024	13:46	LB133540
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/20/2024	13:46	LB133540
CCB02	Aluminum	100	+/-100	U	80.0	100	P	11/20/2024	15:00	LB133540
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/20/2024	15:00	LB133540
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	15:00	LB133540
	Barium	100	+/-100	U	25.0	100	P	11/20/2024	15:00	LB133540
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/20/2024	15:00	LB133540
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/20/2024	15:00	LB133540
	Calcium	2000	+/-2000	U	500	2000	P	11/20/2024	15:00	LB133540
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/20/2024	15:00	LB133540
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/20/2024	15:00	LB133540
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	15:00	LB133540
	Iron	100	+/-100	U	80.0	100	P	11/20/2024	15:00	LB133540
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/20/2024	15:00	LB133540
	Magnesium	2000	+/-2000	U	500	2000	P	11/20/2024	15:00	LB133540
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/20/2024	15:00	LB133540
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/20/2024	15:00	LB133540
	Potassium	2000	+/-2000	U	1600	2000	P	11/20/2024	15:00	LB133540
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	15:00	LB133540

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. SDG No.: P4868
Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/20/2024	15:00	LB133540
	Sodium	2000	+/-2000	U	1000	2000	P	11/20/2024	15:00	LB133540
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/20/2024	15:00	LB133540
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/20/2024	15:00	LB133540
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/20/2024	15:00	LB133540
CCB03	Aluminum	100	+/-100	U	80.0	100	P	11/20/2024	16:52	LB133540
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	11/20/2024	16:52	LB133540
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	16:52	LB133540
	Barium	100	+/-100	U	25.0	100	P	11/20/2024	16:52	LB133540
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	11/20/2024	16:52	LB133540
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	11/20/2024	16:52	LB133540
	Calcium	2000	+/-2000	U	500	2000	P	11/20/2024	16:52	LB133540
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	11/20/2024	16:52	LB133540
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	11/20/2024	16:52	LB133540
	Copper	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	16:52	LB133540
	Iron	100	+/-100	U	80.0	100	P	11/20/2024	16:52	LB133540
	Lead	12.0	+/-12.0	U	9.60	12.0	P	11/20/2024	16:52	LB133540
	Magnesium	2000	+/-2000	U	500	2000	P	11/20/2024	16:52	LB133540
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	11/20/2024	16:52	LB133540
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	11/20/2024	16:52	LB133540
	Potassium	2000	+/-2000	U	1600	2000	P	11/20/2024	16:52	LB133540
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	11/20/2024	16:52	LB133540
	Silver	10.0	+/-10.0	U	5.00	10.0	P	11/20/2024	16:52	LB133540
	Sodium	2000	+/-2000	U	1000	2000	P	11/20/2024	16:52	LB133540
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	11/20/2024	16:52	LB133540
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	11/20/2024	16:52	LB133540
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	11/20/2024	16:52	LB133540

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165066BL		WATER		Batch Number:		PB165066		Prep Date:	11/18/2024	
	Mercury	0.20	<0.20	U	0.16	0.20	CV	11/18/2024	14:43	LB133490

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165011BL	WATER			Batch Number:		PB165011		Prep Date:	11/15/2024	
	Aluminum	50.0	<50.0	U	40.0	50.0	P	11/20/2024	16:39	LB133540
	Antimony	25.0	<25.0	U	6.25	25.0	P	11/20/2024	16:39	LB133540
	Arsenic	10.0	<10.0	U	8.00	10.0	P	11/20/2024	16:39	LB133540
	Barium	50.0	<50.0	U	12.5	50.0	P	11/20/2024	16:39	LB133540
	Beryllium	3.00	<3.00	U	0.75	3.00	P	11/20/2024	16:39	LB133540
	Cadmium	3.00	<3.00	U	0.75	3.00	P	11/20/2024	16:39	LB133540
	Calcium	1000	<1000	U	250	1000	P	11/20/2024	16:39	LB133540
	Chromium	5.00	<5.00	U	2.50	5.00	P	11/20/2024	16:39	LB133540
	Cobalt	15.0	<15.0	U	3.75	15.0	P	11/20/2024	16:39	LB133540
	Copper	10.0	<10.0	U	8.00	10.0	P	11/20/2024	16:39	LB133540
	Iron	50.0	<50.0	U	40.0	50.0	P	11/20/2024	16:39	LB133540
	Lead	6.00	<6.00	U	4.80	6.00	P	11/20/2024	16:39	LB133540
	Magnesium	1000	<1000	U	250	1000	P	11/20/2024	16:39	LB133540
	Manganese	10.0	<10.0	U	2.50	10.0	P	11/20/2024	16:39	LB133540
	Nickel	20.0	<20.0	U	5.00	20.0	P	11/20/2024	16:39	LB133540
	Potassium	1000	<1000	U	800	1000	P	11/20/2024	16:39	LB133540
	Selenium	10.0	<10.0	U	8.00	10.0	P	11/20/2024	16:39	LB133540
	Silver	5.00	<5.00	U	2.50	5.00	P	11/20/2024	16:39	LB133540
	Sodium	1000	<1000	U	500	1000	P	11/20/2024	16:39	LB133540
	Thallium	20.0	<20.0	U	10.0	20.0	P	11/20/2024	16:39	LB133540
	Vanadium	20.0	<20.0	U	10.0	20.0	P	11/20/2024	16:39	LB133540
	Zinc	20.0	<20.0	U	5.00	20.0	P	11/20/2024	16:39	LB133540

Metals
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INTERFERENCE CHECK SAMPLE

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868
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
ICSA01	Aluminum	255000	255000	100	216000	294000	11/18/2024	13:30	LB133502
	Antimony	-3.34			-50	50	11/18/2024	13:30	LB133502
	Arsenic	6.18			-20	20	11/18/2024	13:30	LB133502
	Barium	2.50	6.0	42	-94	106	11/18/2024	13:30	LB133502
	Beryllium	1.39			-6	6	11/18/2024	13:30	LB133502
	Cadmium	4.50	1.0	450	-5	7	11/18/2024	13:30	LB133502
	Calcium	234000	245000	96	208000	282000	11/18/2024	13:30	LB133502
	Chromium	56.3	52.0	108	42	62	11/18/2024	13:30	LB133502
	Cobalt	1.87			-30	30	11/18/2024	13:30	LB133502
	Copper	14.3	2.0	715	-18	22	11/18/2024	13:30	LB133502
	Iron	96400	101000	95	85600	116500	11/18/2024	13:30	LB133502
	Lead	8.39			-12	12	11/18/2024	13:30	LB133502
	Magnesium	257000	255000	101	216000	294000	11/18/2024	13:30	LB133502
	Manganese	3.33	7.0	48	-13	27	11/18/2024	13:30	LB133502
	Nickel	2.89	2.0	144	-38	42	11/18/2024	13:30	LB133502
	Potassium	43.3			0	0	11/18/2024	13:30	LB133502
	Selenium	-16.2			-20	20	11/18/2024	13:30	LB133502
	Silver	-0.11			-10	10	11/18/2024	13:30	LB133502
	Sodium	-43.4			0	0	11/18/2024	13:30	LB133502
	Thallium	-4.41			-40	40	11/18/2024	13:30	LB133502
	Vanadium	7.77			-40	40	11/18/2024	13:30	LB133502
	Zinc	5.14			-40	40	11/18/2024	13:30	LB133502
ICSAB01	Aluminum	263000	247000	106	209000	285000	11/18/2024	13:42	LB133502
	Antimony	633	618	102	525	711	11/18/2024	13:42	LB133502
	Arsenic	116	104	112	88.4	120	11/18/2024	13:42	LB133502
	Barium	493	537	92	437	637	11/18/2024	13:42	LB133502
	Beryllium	495	495	100	420	570	11/18/2024	13:42	LB133502
	Cadmium	1020	972	105	826	1120	11/18/2024	13:42	LB133502
	Calcium	238000	235000	101	199000	271000	11/18/2024	13:42	LB133502
	Chromium	579	542	107	460	624	11/18/2024	13:42	LB133502
	Cobalt	508	476	107	404	548	11/18/2024	13:42	LB133502
	Copper	506	511	99	434	588	11/18/2024	13:42	LB133502
	Iron	98700	99300	99	84400	114500	11/18/2024	13:42	LB133502
	Lead	57.7	49.0	118	37	61	11/18/2024	13:42	LB133502
	Magnesium	262000	248000	106	210000	286000	11/18/2024	13:42	LB133502
	Manganese	475	507	94	430	584	11/18/2024	13:42	LB133502
	Nickel	1000	954	105	810	1100	11/18/2024	13:42	LB133502
	Potassium	-18.9			0	0	11/18/2024	13:42	LB133502
	Selenium	32.7	46.0	71	26	66	11/18/2024	13:42	LB133502
	Silver	202	201	100	170	232	11/18/2024	13:42	LB133502
	Sodium	-170			0	0	11/18/2024	13:42	LB133502
	Thallium	91.6	108	85	68	148	11/18/2024	13:42	LB133502

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868
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
ICSAB01	Vanadium	499	491	102	417	565	11/18/2024	13:42	LB133502
	Zinc	894	952	94	809	1095	11/18/2024	13:42	LB133502
ICSA01	Aluminum	268000	255000	105	216000	294000	11/20/2024	13:17	LB133540
	Antimony	-4.03			-50	50	11/20/2024	13:17	LB133540
	Arsenic	5.49			-20	20	11/20/2024	13:17	LB133540
	Barium	1.32	6.0	22	-94	106	11/20/2024	13:17	LB133540
	Beryllium	1.44			-6	6	11/20/2024	13:17	LB133540
	Cadmium	6.68	1.0	668	-5	7	11/20/2024	13:17	LB133540
	Calcium	244000	245000	100	208000	282000	11/20/2024	13:17	LB133540
	Chromium	58.8	52.0	113	42	62	11/20/2024	13:17	LB133540
	Cobalt	2.35			-30	30	11/20/2024	13:17	LB133540
	Copper	15.6	2.0	780	-18	22	11/20/2024	13:17	LB133540
	Iron	101000	101000	100	85600	116500	11/20/2024	13:17	LB133540
	Lead	7.49			-12	12	11/20/2024	13:17	LB133540
	Magnesium	269000	255000	106	216000	294000	11/20/2024	13:17	LB133540
	Manganese	3.17	7.0	45	-13	27	11/20/2024	13:17	LB133540
	Nickel	2.95	2.0	148	-38	42	11/20/2024	13:17	LB133540
	Potassium	-5.15			0	0	11/20/2024	13:17	LB133540
	Selenium	-18.8			-20	20	11/20/2024	13:17	LB133540
	Silver	-1.10			-10	10	11/20/2024	13:17	LB133540
	Sodium	-74.9			0	0	11/20/2024	13:17	LB133540
	Thallium	-1.13			-40	40	11/20/2024	13:17	LB133540
	Vanadium	8.64			-40	40	11/20/2024	13:17	LB133540
	Zinc	5.94			-40	40	11/20/2024	13:17	LB133540
ICSAB01	Aluminum	268000	247000	108	209000	285000	11/20/2024	13:28	LB133540
	Antimony	644	618	104	525	711	11/20/2024	13:28	LB133540
	Arsenic	118	104	114	88.4	120	11/20/2024	13:28	LB133540
	Barium	517	537	96	437	637	11/20/2024	13:28	LB133540
	Beryllium	514	495	104	420	570	11/20/2024	13:28	LB133540
	Cadmium	1050	972	108	826	1120	11/20/2024	13:28	LB133540
	Calcium	244000	235000	104	199000	271000	11/20/2024	13:28	LB133540
	Chromium	583	542	108	460	624	11/20/2024	13:28	LB133540
	Cobalt	527	476	111	404	548	11/20/2024	13:28	LB133540
	Copper	520	511	102	434	588	11/20/2024	13:28	LB133540
	Iron	100000	99300	101	84400	114500	11/20/2024	13:28	LB133540
	Lead	57.8	49.0	118	37	61	11/20/2024	13:28	LB133540
	Magnesium	267000	248000	108	210000	286000	11/20/2024	13:28	LB133540
	Manganese	497	507	98	430	584	11/20/2024	13:28	LB133540
	Nickel	1040	954	109	810	1100	11/20/2024	13:28	LB133540
	Potassium	-40.7			0	0	11/20/2024	13:28	LB133540
	Selenium	30.2	46.0	66	26	66	11/20/2024	13:28	LB133540
	Silver	206	201	102	170	232	11/20/2024	13:28	LB133540

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: <u>Tetra Tech NUS, Inc.</u>	SDG No.: <u>P4868</u>
Contract: <u>TETR06</u>	Lab Code: <u>CHEM</u>
ICS Source: <u>EPA</u>	Case No.: <u>P4868</u>
	SAS No.: <u>P4868</u>
	Instrument ID: <u>P4</u>

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
ICSAB01	Sodium	-45.3			0	0	11/20/2024	13:28	LB133540
	Thallium	90.2	108	84	68	148	11/20/2024	13:28	LB133540
	Vanadium	510	491	104	417	565	11/20/2024	13:28	LB133540
	Zinc	916	952	96	809	1095	11/20/2024	13:28	LB133540



METAL QC DATA

metals
- 5a -
MATRIX SPIKE SUMMARY

client:	<u>Tetra Tech NUS, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>P4868</u>	
contract:	<u>TETR06</u>	lab code:	<u>CHEM</u>	case no.:	<u>P4868</u>	sas no.: <u>P4868</u>
matrix:	<u>Water</u>	sample id:	<u>P4867-04</u>	client id:	<u>TT-072-IDWGW-20241113MS</u>	
Percent Solids for Sample:	NA	Spiked ID:	P4867-04MS	Percent Solids for Spike Sample:	NA	

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	4.34		0.20	U	4.0	108		CV

metals
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MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>Tetra Tech NUS, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>P4868</u>		
contract:	<u>TETR06</u>	lab code:	<u>CHEM</u>	case no.:	<u>P4868</u>	sas no.:	<u>P4868</u>
matrix:	<u>Water</u>	sample id:	<u>P4867-04</u>	client id:	<u>TT-072-IDWGW-20241113MSD</u>		
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>P4867-04MSD</u>	Percent Solids for Spike Sample:	<u>NA</u>		

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.99		0.20	U	4.0	100		CV

metals
- 5a -
MATRIX SPIKE SUMMARY

client:	<u>Tetra Tech NUS, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>P4868</u>
contract:	<u>TETR06</u>	lab code:	<u>CHEM</u>	case no.:	<u>P4868</u>
matrix:	<u>Water</u>	sample id:	<u>P4868-03</u>	client id:	<u>RW5-SP303-20241114MS</u>
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>P4868-03MS</u>	Percent Solids for Spike Sample:	<u>NA</u>

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	86 - 115	1070		50.0	U	1000	107		P
Antimony	ug/L	88 - 113	416		25.0	U	400	104		P
Arsenic	ug/L	87 - 113	403		10.0	U	400	101		P
Barium	ug/L	88 - 113	103		50.0	U	100	103		P
Beryllium	ug/L	89 - 112	99.6		3.00	U	100	100		P
Cadmium	ug/L	88 - 113	98.0		3.00	U	100	98		P
Calcium	ug/L	87 - 113	5170		4720		500	90		P
Chromium	ug/L	90 - 113	218		4.33	J	200	107		P
Cobalt	ug/L	89 - 114	101		1.62	J	100	100		P
Copper	ug/L	86 - 114	158		10.0	U	150	105		P
Iron	ug/L	87 - 115	1560		46.5	J	1500	101		P
Lead	ug/L	86 - 113	475		6.00	U	500	95		P
Magnesium	ug/L	85 - 113	2770		1780		1000	99		P
Manganese	ug/L	90 - 114	137		36.2		100	101		P
Nickel	ug/L	88 - 113	249		2.38	J	250	99		P
Potassium	ug/L	86 - 114	5780		792	J	5000	100		P
Selenium	ug/L	83 - 114	1010		10.0	U	1000	101		P
Silver	ug/L	84 - 115	31.9		5.00	U	37.5	85		P
Sodium	ug/L	87 - 115	11800		10700		1500	73		P
Thallium	ug/L	85 - 114	1030		20.0	U	1000	103		P
Vanadium	ug/L	90 - 111	159		20.0	U	150	106		P
Zinc	ug/L	87 - 115	115		9.05	J	100	106		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>Tetra Tech NUS, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>P4868</u>
contract:	<u>TETR06</u>	lab code:	<u>CHEM</u>	case no.:	<u>P4868</u>
matrix:	<u>Water</u>	sample id:	<u>P4868-03</u>	client id:	<u>RW5-SP303-20241114MSD</u>
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>P4868-03MSD</u>	Percent Solids for Spike Sample:	<u>NA</u>

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	86 - 115	1070		50.0	U	1000	107		P
Antimony	ug/L	88 - 113	414		25.0	U	400	104		P
Arsenic	ug/L	87 - 113	402		10.0	U	400	100		P
Barium	ug/L	88 - 113	102		50.0	U	100	102		P
Beryllium	ug/L	89 - 112	98.7		3.00	U	100	99		P
Cadmium	ug/L	88 - 113	97.0		3.00	U	100	97		P
Calcium	ug/L	87 - 113	5110		4720		500	78		P
Chromium	ug/L	90 - 113	217		4.33	J	200	106		P
Cobalt	ug/L	89 - 114	101		1.62	J	100	99		P
Copper	ug/L	86 - 114	157		10.0	U	150	105		P
Iron	ug/L	87 - 115	1570		46.5	J	1500	101		P
Lead	ug/L	86 - 113	470		6.00	U	500	94		P
Magnesium	ug/L	85 - 113	2750		1780		1000	97		P
Manganese	ug/L	90 - 114	136		36.2		100	100		P
Nickel	ug/L	88 - 113	247		2.38	J	250	98		P
Potassium	ug/L	86 - 114	5810		792	J	5000	100		P
Selenium	ug/L	83 - 114	1010		10.0	U	1000	101		P
Silver	ug/L	84 - 115	32.0		5.00	U	37.5	85		P
Sodium	ug/L	87 - 115	12000		10700		1500	82		P
Thallium	ug/L	85 - 114	1050		20.0	U	1000	105		P
Vanadium	ug/L	90 - 111	157		20.0	U	150	105		P
Zinc	ug/L	87 - 115	116		9.05	J	100	107		P

Metals
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Client:

Tetra Tech NUS, Inc.

SDG No.:

P4868

Contract:

TETR06

Lab Code:

CHEM

Case No.:

P4868

SAS No.:

P4868

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

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DUPLICATE SAMPLE SUMMARY

Client:	Tetra Tech NUS, Inc.	Level:	LOW	SDG No.:	P4868				
Contract:	TETR06	Lab Code:	CHEM	Case No.:	P4868	SAS No.:	P4868		
Matrix:	Water	Sample ID:	P4867-04	Client ID:	TT-072-IDWGW-20241113DUP				
Percent Solids for Sample:	NA	Duplicate ID	P4867-04DUP	Percent Solids for Spike Sample:	NA				

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	0.20	U	0.20	U			CV

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	Tetra Tech NUS, Inc.	Level:	LOW	SDG No.:	P4868				
Contract:	TETR06	Lab Code:	CHEM	Case No.:	P4868	SAS No.:	P4868		
Matrix:	Water	Sample ID:	P4867-04MS	Client ID:	TT-072-IDWGW-20241113MSD				
Percent Solids for Sample:	NA	Duplicate ID	P4867-04MSD	Percent Solids for Spike Sample:	NA				

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	4.34		3.99		8		CV

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868
Matrix: Water **Sample ID:** P4868-03 **Client ID:** RW5-SP303-20241114DUP
Percent Solids for Sample: NA **Duplicate ID** P4868-03DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	50.0	U	50.0	U			P
Antimony	ug/L	20	25.0	U	25.0	U			P
Arsenic	ug/L	20	10.0	U	10.0	U			P
Barium	ug/L	20	50.0	U	50.0	U			P
Beryllium	ug/L	20	3.00	U	3.00	U			P
Cadmium	ug/L	20	3.00	U	3.00	U			P
Calcium	ug/L	20	4720		4740		0		P
Chromium	ug/L	20	4.33	J	4.42	J	2		P
Cobalt	ug/L	20	1.62	J	1.70	J	5		P
Copper	ug/L	20	10.0	U	10.0	U			P
Iron	ug/L	20	46.5	J	44.5	J	4		P
Lead	ug/L	20	6.00	U	6.00	U			P
Magnesium	ug/L	20	1780		1790		1		P
Manganese	ug/L	20	36.2		36.6		1		P
Nickel	ug/L	20	2.38	J	2.38	J	0		P
Potassium	ug/L	20	792	J	807	J	2		P
Selenium	ug/L	20	10.0	U	10.0	U			P
Silver	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	10700		10900		2		P
Thallium	ug/L	20	20.0	U	20.0	U			P
Vanadium	ug/L	20	20.0	U	20.0	U			P
Zinc	ug/L	20	9.05	J	9.29	J	3		P

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	<u>Tetra Tech NUS, Inc.</u>	Level:	<u>LOW</u>	SDG No.:	<u>P4868</u>		
Contract:	<u>TETR06</u>	Lab Code:	<u>CHEM</u>	Case No.:	<u>P4868</u>	SAS No.:	<u>P4868</u>
Matrix:	<u>Water</u>	Sample ID:	<u>P4868-03MS</u>	Client ID:	<u>RW5-SP303-20241114MSD</u>		
Percent Solids for Sample:	NA	Duplicate ID	P4868-03MSD	Percent Solids for Spike Sample:	NA		

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1070		1070		0		P
Antimony	ug/L	20	416		414		0		P
Arsenic	ug/L	20	403		402		0		P
Barium	ug/L	20	103		102		1		P
Beryllium	ug/L	20	99.6		98.7		1		P
Cadmium	ug/L	20	98.0		97.0		1		P
Calcium	ug/L	20	5170		5110		1		P
Chromium	ug/L	20	218		217		0		P
Cobalt	ug/L	20	101		101		0		P
Copper	ug/L	20	158		157		1		P
Iron	ug/L	20	1560		1570		1		P
Lead	ug/L	20	475		470		1		P
Magnesium	ug/L	20	2770		2750		1		P
Manganese	ug/L	20	137		136		1		P
Nickel	ug/L	20	249		247		1		P
Potassium	ug/L	20	5780		5810		1		P
Selenium	ug/L	20	1010		1010		0		P
Silver	ug/L	20	31.9		32.0		0		P
Sodium	ug/L	20	11800		12000		2		P
Thallium	ug/L	20	1030		1050		2		P
Vanadium	ug/L	20	159		157		1		P
Zinc	ug/L	20	115		116		1		P

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. SDG No.: P4868
 Contract: TETR06 Lab Code: CHEM Case No.: P4868 SAS No.: P4868

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165011BS							
Aluminum	ug/L	1000	978		98	86 - 115	P
Antimony	ug/L	400	375		94	88 - 113	P
Arsenic	ug/L	400	372		93	87 - 113	P
Barium	ug/L	100	90.6		91	88 - 113	P
Beryllium	ug/L	100	98.3		98	89 - 112	P
Cadmium	ug/L	100	92.6		93	88 - 113	P
Calcium	ug/L	500	484	J	97	87 - 113	P
Chromium	ug/L	200	199		100	90 - 113	P
Cobalt	ug/L	100	93.7		94	89 - 114	P
Copper	ug/L	150	150		100	86 - 114	P
Iron	ug/L	1500	1400		93	87 - 115	P
Lead	ug/L	500	468		94	86 - 113	P
Magnesium	ug/L	1000	954	J	95	85 - 113	P
Manganese	ug/L	100	94.5		94	90 - 114	P
Nickel	ug/L	250	235		94	88 - 113	P
Potassium	ug/L	5000	4630		93	86 - 114	P
Selenium	ug/L	1000	962		96	83 - 114	P
Silver	ug/L	37.5	36.7		98	84 - 115	P
Sodium	ug/L	1500	1320		88	87 - 115	P
Thallium	ug/L	1000	965		96	85 - 114	P
Vanadium	ug/L	150	145		97	90 - 111	P
Zinc	ug/L	100	101		101	87 - 115	P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** P4868
Contract: TETR06 **Lab Code:** CHEM **Case No.:** P4868 **SAS No.:** P4868

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165066BS Mercury	ug/L	4.0	3.42		86	82 - 119	CV

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

TT-072-IDWGW-20241113L

Lab Name: Chemtech Consulting Group Contract: TETR06
Lab Code: CHEM Lb No.: lb133490 Lab Sample ID : P4867-04L SDG No.: P4868
Matrix (soil/water): Water Level (low/med): LOW
Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Differ- ence	Q	M
Mercury	0.20 U	1.00 U			CV

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

RW5-SP303-20241114L

Lab Name: Chemtech Consulting Group **Contract:** TETR06
Lab Code: CHEM **Lb No.:** lb133502 **Lab Sample ID :** P4868-03L **SDG No.:** P4868
Matrix (soil/water): Water **Level (low/med):** LOW
Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ- ence	Q	M
		C		C			
Aluminum	50.0	U	250	U			P
Antimony	25.0	U	125	U			P
Arsenic	10.0	U	50.0	U			P
Barium	50.0	U	250	U			P
Beryllium	3.00	U	15.0	U			P
Cadmium	3.00	U	15.0	U			P
Calcium	4720		4770	J	1		P
Chromium	4.33	J	4.27	J	2		P
Cobalt	1.62	J	75.0	U	100.0		P
Copper	10.0	U	50.0	U			P
Iron	46.5	J	250	U	100.0		P
Lead	6.00	U	30.0	U			P
Magnesium	1780		1810	J	2		P
Manganese	36.2		37.3	J	3		P
Nickel	2.38	J	100	U	100.0		P
Potassium	792	J	5000	U	100.0		P
Selenium	10.0	U	50.0	U			P
Silver	5.00	U	25.0	U			P
Sodium	10700		9520		11		P
Thallium	20.0	U	100	U			P
Vanadium	20.0	U	100	U			P
Zinc	9.05	J	10.1	J	11		P



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Contract: TETR06

Lab Code: CHEM

Case No.: P4868

SAS No.: P4868

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
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Contract: TETR06

Lab Code: CHEM

Case No.: P4868

SAS No.: P4868

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
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Contract: TETR06

Lab Code: CHEM

Case No.: P4868

SAS No.: P4868

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
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Contract: TETR06

Lab Code: CHEM

Case No.: P4868

SAS No.: P4868

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
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMEN CORRECTION FACTORS

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Contract: TETR06

Lab Code: CHEM

Case No.: P4868

SAS No.: P4868

Instrument ID:

Date:

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000



METAL PREPARATION & ANALYICAL SUMMARY

Metals
- 13 -

SAMPLE PREPARATION SUMMARY

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Contract: TETR06

Lab Code: CHEM

Method:

Case No.: P4868

SAS No.: P4868

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB165011							
P4868-01	RW5-SP100-20241114	SAM	WATER	11/15/2024	50.0	25.0	
P4868-03	RW5-SP303-20241114	SAM	WATER	11/15/2024	50.0	25.0	
P4868-03DUP	RW5-SP303-20241114DUP	DUP	WATER	11/15/2024	50.0	25.0	
P4868-03MS	RW5-SP303-20241114MS	MS	WATER	11/15/2024	50.0	25.0	
P4868-03MSD	RW5-SP303-20241114MSD	MSD	WATER	11/15/2024	50.0	25.0	
PB165011BL	PB165011BL	MB	WATER	11/15/2024	50.0	25.0	
PB165011BS	PB165011BS	LCS	WATER	11/15/2024	50.0	25.0	

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Tetra Tech NUS, Inc.

SDG No.: P4868

Contract: TETR06

Lab Code: CHEM

Method:

Case No.: P4868

SAS No.: P4868

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB165066							
P4867-04DUP	TT-072-IDWGW-20241113DUP	DUP	WATER	11/18/2024	30.0	30.0	
P4867-04MS	TT-072-IDWGW-20241113MS	MS	WATER	11/18/2024	30.0	30.0	
P4867-04MSD	TT-072-IDWGW-20241113MSD	MSD	WATER	11/18/2024	30.0	30.0	
P4868-01	RW5-SP100-20241114	SAM	WATER	11/18/2024	30.0	30.0	
P4868-03	RW5-SP303-20241114	SAM	WATER	11/18/2024	30.0	30.0	
PB165066BL	PB165066BL	MB	WATER	11/18/2024	30.0	30.0	
PB165066BS	PB165066BS	LCS	WATER	11/18/2024	30.0	30.0	

metals
- 14 -
ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc. **Contract:** TETR06

Lab code: CHEM **Case no.:** P4868 **Sas no.:** P4868 **Sdg no.:** P4868

Instrument id number: **Method:** **Run number:** LB133490

Start date: 11/18/2024 **End date:** 11/18/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1323	HG
S0.2	S0.2	1	1325	HG
S2.5	S2.5	1	1328	HG
S5	S5	1	1330	HG
S7.5	S7.5	1	1332	HG
S10	S10	1	1343	HG
ICV89	ICV89	1	1346	HG
ICB89	ICB89	1	1348	HG
CCV01	CCV01	1	1353	HG
CCB01	CCB01	1	1358	HG
CRA	CRA	1	1400	HG
CCV02	CCV02	1	1426	HG
CCB02	CCB02	1	1428	HG
PB165066BL	PB165066BL	1	1443	HG
PB165066BS	PB165066BS	1	1445	HG
P4867-04DUP	TT-072-IDWGW-20241113DUP	1	1454	HG
P4867-04MS	TT-072-IDWGW-20241113MS	1	1457	HG
CCV03	CCV03	1	1459	HG
CCB03	CCB03	1	1501	HG
P4867-04MSD	TT-072-IDWGW-20241113MSE	1	1503	HG
P4868-01	RW5-SP100-20241114	1	1506	HG
P4868-03	RW5-SP303-20241114	1	1508	HG
P4867-04L	TT-072-IDWGW-20241113L	5	1517	HG
CCV04	CCV04	1	1522	HG
CCB04	CCB04	1	1524	HG

metals
- 14 -
ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc. **Contract:** TETR06

Lab code: CHEM **Case no.:** P4868 **Sas no.:** P4868 **Sdg no.:** P4868

Instrument id number: **Method:** **Run number:** LB133502

Start date: 11/18/2024 **End date:** 11/18/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1231	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1236	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1240	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1244	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1249	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1253	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1257	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1311	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1315	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1320	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1330	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1342	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1352	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1402	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1431	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1435	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1535	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1539	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4868-01	RW5-SP100-20241114	1	1608	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4868-03	RW5-SP303-20241114	1	1612	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4868-03DUP	RW5-SP303-20241114DUP	1	1616	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4868-03MSD	RW5-SP303-20241114MSD	1	1621	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1625	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1629	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4868-03L	RW5-SP303-20241114L	5	1641	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4868-03MS	RW5-SP303-20241114MS	1	1646	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1701	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1706	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1804	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1808	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	1854	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	1858	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

metals
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ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc. **Contract:** TETR06

Lab code: CHEM **Case no.:** P4868 **Sas no.:** P4868 **Sdg no.:** P4868

Instrument id number: **Method:** **Run number:** LB133540

Start date: 11/20/2024 **End date:** 11/20/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1217	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1222	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1226	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1230	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1235	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1239	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1250	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1259	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1309	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1313	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1317	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1328	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1335	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1346	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1450	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1500	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB165011BL	PB165011BL	1	1639	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB165011BS	PB165011BS	1	1644	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1648	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1652	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn



SHIPPING DOCUMENTS

CLIENT INFORMATION			PROJECT INFORMATION					BILLING INFORMATION																																												
COMPANY: Tetra Tech			PROJECT NAME: NWIRP Bethpage					BILL TO: PO#																																												
ADDRESS: 4433 Corporation Ln, Suite 300			PROJECT #: 112G08005-WE13 LOCATION: RW5B					ADDRESS:																																												
CITY: Virginia Beach STATE: VA ZIP: 23462			PROJECT MANAGER: Ernie Wu					CITY: STATE: ZIP:																																												
ATTENTION: Ernie Wu			E-MAIL: ernie.wu@tetratech.com					ATTENTION: PHONE:																																												
PHONE: 757-466-4901 FAX: 757-461-4148			PHONE: 757-466-4901 FAX: 757-461-4148																																																	
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION					ANALYSIS																																												
FAX: 5 day 1.4-D, 10-day others DAYS* HARD COPY: 5 day 1.4-D, 10-day others DAYS* EDD 5 day 1.4-D, 10-day others DAYS* * TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS			☐ 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 _____					<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">1,4-Dioxane SW846 8270 SIM</td> <td style="width:10%;">TAL Metals SW846 60100/7471A</td> <td style="width:10%;">TCL SVOC 8270 SIM</td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td colspan="8"></td> </tr> </table>											1,4-Dioxane SW846 8270 SIM	TAL Metals SW846 60100/7471A	TCL SVOC 8270 SIM															1	2	3	4	5	6	7	8	9								
1,4-Dioxane SW846 8270 SIM	TAL Metals SW846 60100/7471A	TCL SVOC 8270 SIM																																																		
1	2	3	4	5	6	7	8	9																																												
								PRESERVATIVES											COMMENTS																																	
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles										<-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other																																			
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9																																				
1.	RW5-SP100-20241114	GW		X	11/14/24	12:45	3	X	X	X																																										
2.	RW5-SP201-20241114	GW		X	11/14/24	12:47	1	X																																												
3.	RW5-SP303-20241114	GW		X	11/14/24	12:53	3	X	X	X																																										
4.																																																				
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10.																																																				

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	1533	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <u>2.4°C</u> MeOH extraction requires an additional 4oz. Jar for percent solid Comments:
1.	11/14/24 1533	1.	11-14-24	
RELINQUISHED BY	DATE/TIME	RECEIVED BY		
2.	11-14-24	2.		
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY		
3.	11-14-24	3.		

Page 1 of 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