284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS
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 : P4475

ATTENTION : Ernie Wu

Laboratory Certification ID # 20012

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Cover Page

Order ID : P4475

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
P4475-01	BP-VPB-190-TB-20241018
P4475-02	BP-VPB-190-DUP-20241018
P4475-03	BP-VPB-190-GW-223-225
P4475-04	BP-VPB-190-GW-238-240
P4475-05	BP-VPB-190-GW-258-260
P4475-06	BP-VPB-190-GW-278-280

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

Nimisha Pandya QA/QC Supervisor Pandya , 10/30/2024, 4:25:33 PM

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: CTO WE13
Project Manager: Ernie Wu
Chemtech Project # P4475
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
6 Water samples were received on 10/21/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group1. This data package contains results for VOCMS Group1.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis of VOCMS Group1 was based on method 8260D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
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 met the requirements .
The Tuning criteria met requirements.

E. Additional Comments:
The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."
Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

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 <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount

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for all compounds using Linear Regression when the %RSD value for a compound is > 15% 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
Nimisha Pandya QA/QC Supervisor Pandya , 10/30/2024, 4:25:43 PM

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CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: CTO WE13
Project Manager : Ernie Wu
Chemtech Project # P4475
Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:
6 Water samples were received on 10/21/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group1. 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.
The Internal Standards Areas met the acceptable requirements.
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 BN034701.D met the requirements except for 2,4,6-Tribromophenol, The failure compound not associated with the client parameters list, therefore no corrective action was taken.

The Tuning criteria met requirements.

E. Additional Comments:
The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."
The not QT review data is reported in the Miscellaneous.

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The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% 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 > 15% 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
Nimisha Pandya QA/QC Supervisor Pandya , 10/30/2024, 4:25:49 PM

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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 is 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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4475

	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:** 10/28/2024

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LAB CHRONICLE

OrderID:	P4475	**OrderDate:**	10/22/2024 10:05:00 AM
Client:	Tetra Tech NUS, Inc.	**Project:**	CTO WE13
Contact:	Ernie Wu	**Location:**	K61,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4475-01	**BP-VPB-190-TB-2024 1018**	**Water**			**10/18/24**			**10/21/24**
			VOCMS Group1	8260-Low			10/22/24	
P4475-02	**BP-VPB-190-DUP-202 41018**	**Water**			**10/18/24**			**10/21/24**
			VOCMS Group1	8260-Low			10/22/24	
P4475-03	**BP-VPB-190-GW-223-225**	**Water**			**10/18/24**			**10/21/24**
			VOCMS Group1	8260-Low			10/22/24	
P4475-04	**BP-VPB-190-GW-238-240**	**Water**			**10/18/24**			**10/21/24**
			VOCMS Group1	8260-Low			10/22/24	
P4475-05	**BP-VPB-190-GW-258-260**	**Water**			**10/21/24**			**10/21/24**
			VOCMS Group1	8260-Low			10/22/24	
P4475-06	**BP-VPB-190-GW-278-280**	**Water**			**10/21/24**			**10/21/24**
			VOCMS Group1	8260-Low			10/22/24	

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Hit Summary Sheet
SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**BP-VPB-190-GW-238-240**								
P4475-04	BP-VPB-190-GW-2	Water	Trichloroethene	1.10		0.32	0.75	1.00	ug/L
			Total Voc :	1.10					
			Total Concentration:	1.10					

SAMPLE DATA

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-TB-20241018	SDG No.:	P4475
Lab Sample ID:	P4475-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084456.D	1		10/22/24 15:33	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-TB-20241018	SDG No.:	P4475
Lab Sample ID:	P4475-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084456.D	1		10/22/24 15:33	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.0		81 - 118		92%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	49.1		89 - 112		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		85 - 114		91%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	187000	8.224				
540-36-3	1,4-Difluorobenzene	314000	9.1				
3114-55-4	Chlorobenzene-d5	266000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	104000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D.					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-TB-20241018	SDG No.:	P4475
Lab Sample ID:	P4475-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084456.D	1		10/22/24 15:33	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-DUP-20241018	SDG No.:	P4475
Lab Sample ID:	P4475-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084461.D	1		10/22/24 17:57	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-DUP-20241018	SDG No.:	P4475
Lab Sample ID:	P4475-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084461.D	1		10/22/24 17:57	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.6		81 - 118		99%	SPK: 50
1868-53-7	Dibromofluoromethane	52.6		80 - 119		105%	SPK: 50
2037-26-5	Toluene-d8	50.4		89 - 112		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		85 - 114		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	163000	8.224				
540-36-3	1,4-Difluorobenzene	278000	9.1				
3114-55-4	Chlorobenzene-d5	246000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	100000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D.					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-DUP-20241018	SDG No.:	P4475
Lab Sample ID:	P4475-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084461.D	1		10/22/24 17:57	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-223-225	SDG No.:	P4475
Lab Sample ID:	P4475-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084460.D	1		10/22/24 17:33	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-223-225	SDG No.:	P4475
Lab Sample ID:	P4475-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084460.D	1		10/22/24 17:33	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.5		81 - 118		97%	SPK: 50
1868-53-7	Dibromofluoromethane	52.3		80 - 119		105%	SPK: 50
2037-26-5	Toluene-d8	49.7		89 - 112		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.1		85 - 114		92%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	167000	8.224				
540-36-3	1,4-Difluorobenzene	284000	9.106				
3114-55-4	Chlorobenzene-d5	246000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	98200	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D.					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-223-225	SDG No.:	P4475
Lab Sample ID:	P4475-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084460.D	1		10/22/24 17:33	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-238-240	SDG No.:	P4475
Lab Sample ID:	P4475-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084455.D	1		10/22/24 15:09	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	1.10		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-238-240	SDG No.:	P4475
Lab Sample ID:	P4475-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084455.D	1		10/22/24 15:09	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.3		81 - 118		93%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		80 - 119		100%	SPK: 50
2037-26-5	Toluene-d8	48.9		89 - 112		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.4		85 - 114		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	174000	8.224				
540-36-3	1,4-Difluorobenzene	291000	9.1				
3114-55-4	Chlorobenzene-d5	247000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	101000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D.					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-238-240	SDG No.:	P4475
Lab Sample ID:	P4475-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084455.D	1		10/22/24 15:09	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/21/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-258-260	SDG No.:	P4475
Lab Sample ID:	P4475-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084458.D	1		10/22/24 16:45	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/21/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-258-260	SDG No.:	P4475
Lab Sample ID:	P4475-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084458.D	1		10/22/24 16:45	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.0		81 - 118		98%	SPK: 50
1868-53-7	Dibromofluoromethane	51.3		80 - 119		103%	SPK: 50
2037-26-5	Toluene-d8	49.8		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		85 - 114		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	161000	8.224				
540-36-3	1,4-Difluorobenzene	277000	9.1				
3114-55-4	Chlorobenzene-d5	244000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	99800	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D.					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/21/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-258-260	SDG No.:	P4475
Lab Sample ID:	P4475-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084458.D	1		10/22/24 16:45	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

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

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/21/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-278-280	SDG No.:	P4475
Lab Sample ID:	P4475-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084459.D	1		10/22/24 17:09	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/21/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-278-280	SDG No.:	P4475
Lab Sample ID:	P4475-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084459.D	1		10/22/24 17:09	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.0		81 - 118		100%	SPK: 50
1868-53-7	Dibromofluoromethane	51.3		80 - 119		103%	SPK: 50
2037-26-5	Toluene-d8	49.9		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.4		85 - 114		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	158000	8.23				
540-36-3	1,4-Difluorobenzene	282000	9.1				
3114-55-4	Chlorobenzene-d5	246000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	101000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D.					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/21/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-278-280	SDG No.:	P4475
Lab Sample ID:	P4475-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084459.D	1		10/22/24 17:09	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

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

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Surrogate Summary

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
P4475-01	BP-VPB-190-TB-20241018	1,2-Dichloroethane-d4	50	46.0	92	81	118
		Dibromofluoromethane	50	50.8	102	80	119
		Toluene-d8	50	49.1	98	89	112
		4-Bromofluorobenzene	50	45.6	91	85	114
P4475-02	BP-VPB-190-DUP-20241018	1,2-Dichloroethane-d4	50	49.6	99	81	118
		Dibromofluoromethane	50	52.6	105	80	119
		Toluene-d8	50	50.4	101	89	112
		4-Bromofluorobenzene	50	47.5	95	85	114
P4475-03	BP-VPB-190-GW-223-225	1,2-Dichloroethane-d4	50	48.5	97	81	118
		Dibromofluoromethane	50	52.3	105	80	119
		Toluene-d8	50	49.8	99	89	112
		4-Bromofluorobenzene	50	46.1	92	85	114
P4475-04	BP-VPB-190-GW-238-240	1,2-Dichloroethane-d4	50	46.3	93	81	118
		Dibromofluoromethane	50	50.2	100	80	119
		Toluene-d8	50	48.9	98	89	112
		4-Bromofluorobenzene	50	46.4	93	85	114
P4475-05	BP-VPB-190-GW-258-260	1,2-Dichloroethane-d4	50	49.0	98	81	118
		Dibromofluoromethane	50	51.3	103	80	119
		Toluene-d8	50	49.9	100	89	112
		4-Bromofluorobenzene	50	47.6	95	85	114
P4475-06	BP-VPB-190-GW-278-280	1,2-Dichloroethane-d4	50	50.0	100	81	118
		Dibromofluoromethane	50	51.3	103	80	119
		Toluene-d8	50	49.9	100	89	112
		4-Bromofluorobenzene	50	46.4	93	85	114
VN1022WBL01	VN1022WBL01	1,2-Dichloroethane-d4	50	45.7	91	81	118
		Dibromofluoromethane	50	50.0	100	80	119
		Toluene-d8	50	49.3	99	89	112
		4-Bromofluorobenzene	50	45.0	90	85	114
VN1022WBS01	VN1022WBS01	1,2-Dichloroethane-d4	50	46.2	92	81	118
		Dibromofluoromethane	50	49.5	99	80	119
		Toluene-d8	50	48.8	98	89	112
		4-Bromofluorobenzene	50	49.0	98	85	114
VN1022WBSD0	VN1022WBSD01	1,2-Dichloroethane-d4	50	49.1	98	81	118
		Dibromofluoromethane	50	49.5	99	80	119
		Toluene-d8	50	48.0	96	89	112
		4-Bromofluorobenzene	50	48.9	98	85	114

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low **Datafile :** VN084453.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN1022WBS01	Chloromethane	20	15.9	ug/L	79			50	139	
	Vinyl chloride	20	16.5	ug/L	83			58	137	
	Bromomethane	20	17.0	ug/L	85			53	141	
	Chloroethane	20	14.8	ug/L	74			60	138	
	Trichlorofluoromethane	20	17.3	ug/L	86			65	141	
	1,1,2-Trichlorotrifluoroethane	20	17.8	ug/L	89			70	136	
	1,1-Dichloroethene	20	18.2	ug/L	91			71	131	
	Acetone	100	81.7	ug/L	82			39	160	
	Carbon disulfide	20	16.3	ug/L	81			64	133	
	Methyl tert-butyl Ether	20	17.7	ug/L	89			71	124	
	Methylene Chloride	20	18.2	ug/L	91			74	124	
	trans-1,2-Dichloroethene	20	18.0	ug/L	90			75	124	
	1,1-Dichloroethane	20	18.5	ug/L	93			77	125	
	2-Butanone	100	87.6	ug/L	88			56	143	
	Carbon Tetrachloride	20	18.8	ug/L	94			72	136	
	cis-1,2-Dichloroethene	20	18.2	ug/L	91			78	123	
	Chloroform	20	18.7	ug/L	94			79	124	
	1,1,1-Trichloroethane	20	18.2	ug/L	91			74	131	
	Methylcyclohexane	20	17.5	ug/L	88			72	132	
	Benzene	20	18.7	ug/L	94			79	120	
	1,2-Dichloroethane	20	18.3	ug/L	92			73	128	
	Trichloroethene	20	19.0	ug/L	95			79	123	
	1,2-Dichloropropane	20	19.0	ug/L	95			78	122	
	Bromodichloromethane	20	19.0	ug/L	95			79	125	
	4-Methyl-2-Pentanone	100	92.2	ug/L	92			67	130	
	Toluene	20	19.2	ug/L	96			80	121	
	t-1,3-Dichloropropene	20	18.6	ug/L	93			73	127	
	cis-1,3-Dichloropropene	20	18.4	ug/L	92			75	124	
	1,1,2-Trichloroethane	20	20.3	ug/L	102			80	119	
	2-Hexanone	100	91.4	ug/L	91			57	139	
	Dibromochloromethane	20	19.6	ug/L	98			74	126	
	Tetrachloroethene	20	18.4	ug/L	92			74	129	
	Chlorobenzene	20	18.7	ug/L	94			82	118	
	Ethyl Benzene	20	18.1	ug/L	91			79	121	
	m/p-Xylenes	40	37.8	ug/L	95			80	121	
	o-Xylene	20	19.1	ug/L	96			78	122	
	Styrene	20	19.2	ug/L	96			78	123	
	Bromoform	20	19.2	ug/L	96			66	130	
	Isopropylbenzene	20	18.0	ug/L	90			72	131	
	1,1,2,2-Tetrachloroethane	20	18.4	ug/L	92			71	121	
	1,3-Dichlorobenzene	20	18.2	ug/L	91			80	119	
	1,4-Dichlorobenzene	20	17.6	ug/L	88			79	118	
	1,2-Dichlorobenzene	20	17.8	ug/L	89			80	119	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low **Datafile :** VN084454.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN1022WBSD01	Chloromethane	20	16.1	ug/L	81	3		50	139	20
	Vinyl chloride	20	16.5	ug/L	83	0		58	137	20
	Bromomethane	20	18.0	ug/L	90	6		53	141	20
	Chloroethane	20	15.7	ug/L	79	7		60	138	20
	Trichlorofluoromethane	20	17.9	ug/L	90	5		65	141	20
	1,1,2-Trichlorotrifluoroethane	20	18.3	ug/L	92	3		70	136	20
	1,1-Dichloroethene	20	17.9	ug/L	90	1		71	131	20
	Acetone	100	84.1	ug/L	84	2		39	160	20
	Carbon disulfide	20	16.6	ug/L	83	2		64	133	20
	Methyl tert-butyl Ether	20	19.6	ug/L	98	10		71	124	20
	Methylene Chloride	20	19.8	ug/L	99	8		74	124	20
	trans-1,2-Dichloroethene	20	19.1	ug/L	96	6		75	124	20
	1,1-Dichloroethane	20	19.6	ug/L	98	5		77	125	20
	2-Butanone	100	92.3	ug/L	92	4		56	143	20
	Carbon Tetrachloride	20	18.6	ug/L	93	1		72	136	20
	cis-1,2-Dichloroethene	20	19.3	ug/L	97	6		78	123	20
	Chloroform	20	19.4	ug/L	97	3		79	124	20
	1,1,1-Trichloroethane	20	18.9	ug/L	95	4		74	131	20
	Methylcyclohexane	20	17.3	ug/L	86	2		72	132	20
	Benzene	20	18.9	ug/L	95	1		79	120	20
	1,2-Dichloroethane	20	19.6	ug/L	98	6		73	128	20
	Trichloroethene	20	18.8	ug/L	94	1		79	123	20
	1,2-Dichloropropane	20	20.0	ug/L	100	5		78	122	20
	Bromodichloromethane	20	19.8	ug/L	99	4		79	125	20
	4-Methyl-2-Pentanone	100	99.8	ug/L	100	8		67	130	20
	Toluene	20	19.0	ug/L	95	1		80	121	20
	t-1,3-Dichloropropene	20	19.0	ug/L	95	2		73	127	20
	cis-1,3-Dichloropropene	20	19.1	ug/L	96	4		75	124	20
	1,1,2-Trichloroethane	20	20.9	ug/L	104	2		80	119	20
	2-Hexanone	100	96.4	ug/L	96	5		57	139	20
	Dibromochloromethane	20	20.9	ug/L	104	6		74	126	20
	Tetrachloroethene	20	19.2	ug/L	96	4		74	129	20
	Chlorobenzene	20	19.6	ug/L	98	4		82	118	20
	Ethyl Benzene	20	18.2	ug/L	91	0		79	121	20
	m/p-Xylenes	40	38.8	ug/L	97	2		80	121	20
	o-Xylene	20	19.0	ug/L	95	1		78	122	20
	Styrene	20	19.4	ug/L	97	1		78	123	20
	Bromoform	20	20.1	ug/L	101	5		66	130	20
	Isopropylbenzene	20	18.2	ug/L	91	1		72	131	20
	1,1,2,2-Tetrachloroethane	20	19.9	ug/L	100	8		71	121	20
	1,3-Dichlorobenzene	20	18.7	ug/L	94	3		80	119	20
	1,4-Dichlorobenzene	20	18.9	ug/L	95	8		79	118	20
	1,2-Dichlorobenzene	20	18.5	ug/L	93	4		80	119	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1022WBL01

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

Lab File ID: VN084452.D Lab Sample ID: VN1022WBL01

Date Analyzed: 10/22/2024 Time Analyzed: 13:38

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1022WBS01	VN1022WBS01	VN084453.D	10/22/2024
VN1022WBSD01	VN1022WBSD01	VN084454.D	10/22/2024
BP-VPB-190-GW-238-240	P4475-04	VN084455.D	10/22/2024
BP-VPB-190-TB-20241018	P4475-01	VN084456.D	10/22/2024
BP-VPB-190-GW-258-260	P4475-05	VN084458.D	10/22/2024
BP-VPB-190-GW-278-280	P4475-06	VN084459.D	10/22/2024
BP-VPB-190-GW-223-225	P4475-03	VN084460.D	10/22/2024
BP-VPB-190-DUP-20241018	P4475-02	VN084461.D	10/22/2024

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

Lab File ID: VN084211.D BFB Injection Date: 09/30/2024

Instrument ID: MSVOA_N BFB Injection Time: 09:24

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.9
75	30.0 - 60.0% of mass 95	53.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.6 (0.8) 1
174	50.0 - 100.0% of mass 95	71
175	5.0 - 9.0% of mass 174	5.5 (7.8) 1
176	95.0 - 101.0% of mass 174	69.7 (98.2) 1
177	5.0 - 9.0% of mass 176	4.9 (7) 2

1-Value is % mass 174 2-Value is % mass 176

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
VSTDICC100	VSTDICC100	VN084213.D	09/30/2024	12:25
VSTDICCC050	VSTDICCC050	VN084214.D	09/30/2024	12:49
VSTDICC020	VSTDICC020	VN084215.D	09/30/2024	13:13
VSTDICC010	VSTDICC010	VN084216.D	09/30/2024	13:37
VSTDICC005	VSTDICC005	VN084217.D	09/30/2024	14:00
VSTDICC001	VSTDICC001	VN084218.D	09/30/2024	14:48

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

Lab File ID: VN084449.D BFB Injection Date: 10/22/2024

Instrument ID: MSVOA_N BFB Injection Time: 08:33

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.3
75	30.0 - 60.0% of mass 95	51.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	1.2 (1.7) 1
174	50.0 - 100.0% of mass 95	73.9
175	5.0 - 9.0% of mass 174	5.9 (7.9) 1
176	95.0 - 101.0% of mass 174	70.5 (95.4) 1
177	5.0 - 9.0% of mass 176	4.7 (6.7) 2

1-Value is % mass 174 2-Value is % mass 176

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
VSTDCCC050	VSTDCCC050	VN084450.D	10/22/2024	12:50
VN1022WBL01	VN1022WBL01	VN084452.D	10/22/2024	13:38
VN1022WBS01	VN1022WBS01	VN084453.D	10/22/2024	14:01
VN1022WBSD01	VN1022WBSD01	VN084454.D	10/22/2024	14:45
BP-VPB-190-GW-238-240	P4475-04	VN084455.D	10/22/2024	15:09
BP-VPB-190-TB-20241018	P4475-01	VN084456.D	10/22/2024	15:33
BP-VPB-190-GW-258-260	P4475-05	VN084458.D	10/22/2024	16:45
BP-VPB-190-GW-278-280	P4475-06	VN084459.D	10/22/2024	17:09
BP-VPB-190-GW-223-225	P4475-03	VN084460.D	10/22/2024	17:33
BP-VPB-190-DUP-20241018	P4475-02	VN084461.D	10/22/2024	17:57
VSTDCCC050EC	VSTDCCC050	VN084464.D	10/22/2024	19:10

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

Lab File ID: VN084450.D Date Analyzed: 10/22/2024

Instrument ID: MSVOA_N Time Analyzed: 12:50

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	171974	8.22	293014	9.10	264421	11.87
UPPER LIMIT	343948	8.724	586028	9.6	528842	12.365
LOWER LIMIT	85987	7.724	146507	8.6	132211	11.365
EPA SAMPLE NO.						
BP-VPB-190-TB-20241018	187259	8.22	314405	9.10	266392	11.87
BP-VPB-190-DUP-20241018	163076	8.22	278181	9.10	246196	11.87
BP-VPB-190-GW-223-225	166570	8.22	283884	9.11	246455	11.87
BP-VPB-190-GW-238-240	173757	8.22	291051	9.10	247138	11.87
BP-VPB-190-GW-258-260	160725	8.22	277213	9.10	244441	11.87
BP-VPB-190-GW-278-280	157977	8.23	281977	9.10	245983	11.87
VN1022WBL01	195991	8.22	325943	9.10	276681	11.87
VN1022WBS01	177710	8.22	304170	9.10	270028	11.87
VN1022WBSD01	162648	8.22	284290	9.10	251894	11.87

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

Lab File ID: VN084450.D Date Analyzed: 10/22/2024

Instrument ID: MSVOA_N Time Analyzed: 12:50

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	131065	13.788				
UPPER LIMIT	262130	14.288				
LOWER LIMIT	65532.5	13.288				
EPA SAMPLE NO.						
BP-VPB-190-TB-20241018	103875	13.79				
BP-VPB-190-DUP-20241018	100139	13.79				
BP-VPB-190-GW-223-225	98200	13.79				
BP-VPB-190-GW-238-240	100728	13.79				
BP-VPB-190-GW-258-260	99804	13.79				
BP-VPB-190-GW-278-280	100831	13.79				
VN1022WBL01	106919	13.79				
VN1022WBS01	132421	13.79				
VN1022WBSD01	120786	13.79				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1022WBL01	SDG No.:	P4475
Lab Sample ID:	VN1022WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084452.D	1		10/22/24 13:38	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1022WBL01	SDG No.:	P4475
Lab Sample ID:	VN1022WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084452.D	1		10/22/24 13:38	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.7		81 - 118		91%	SPK: 50
1868-53-7	Dibromofluoromethane	49.9		80 - 119		100%	SPK: 50
2037-26-5	Toluene-d8	49.3		89 - 112		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.0		85 - 114		90%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	196000	8.224				
540-36-3	1,4-Difluorobenzene	326000	9.1				
3114-55-4	Chlorobenzene-d5	277000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	107000	13.788				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1022WBS01	SDG No.:	P4475
Lab Sample ID:	VN1022WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084453.D	1		10/22/24 14:01	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	15.9		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	16.5		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	17.0		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	14.8		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	17.3		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	17.8		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.2		0.26	0.75	1.00	ug/L
67-64-1	Acetone	81.7		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	16.3		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	17.7		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	18.2		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.0		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.5		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	87.6		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.8		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.2		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	18.7		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.2		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	17.5		0.19	0.50	1.00	ug/L
71-43-2	Benzene	18.7		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.3		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	19.0		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.0		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	19.0		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	92.2		0.75	2.50	5.00	ug/L
108-88-3	Toluene	19.2		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.6		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.4		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.3		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	91.4		1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1022WBS01	SDG No.:	P4475
Lab Sample ID:	VN1022WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084453.D	1		10/22/24 14:01	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	19.6		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	18.4		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	18.7		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	18.1		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	37.8		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	19.1		0.14	0.50	1.00	ug/L
100-42-5	Styrene	19.2		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	19.2		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	18.0		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.4		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.2		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	17.6		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	17.8		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.2		81 - 118		92%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		80 - 119		99%	SPK: 50
2037-26-5	Toluene-d8	48.8		89 - 112		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.0		85 - 114		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	178000	8.224				
540-36-3	1,4-Difluorobenzene	304000	9.1				
3114-55-4	Chlorobenzene-d5	270000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	132000	13.788				

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1022WBSD01	SDG No.:	P4475
Lab Sample ID:	VN1022WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084454.D	1		10/22/24 14:45	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	16.1		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	16.5		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	18.0		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	15.7		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	17.9		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.3		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.9		0.26	0.75	1.00	ug/L
67-64-1	Acetone	84.1		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	16.6		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.6		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	19.8		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	19.1		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	19.6		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	92.3		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.6		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.3		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	19.4		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.9		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	17.3		0.19	0.50	1.00	ug/L
71-43-2	Benzene	18.9		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.6		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	18.8		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	20.0		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	19.8		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	99.8		0.75	2.50	5.00	ug/L
108-88-3	Toluene	19.0		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.0		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.1		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.9		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	96.4		1.10	2.50	5.00	ug/L

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1022WBSD01	SDG No.:	P4475
Lab Sample ID:	VN1022WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084454.D	1		10/22/24 14:45	VN102224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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108-90-7	Chlorobenzene	19.6		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	18.2		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	38.8		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	19.0		0.14	0.50	1.00	ug/L
100-42-5	Styrene	19.4		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	20.1		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	18.2		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.9		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.7		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.9		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.5		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.1		81 - 118		98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		80 - 119		99%	SPK: 50
2037-26-5	Toluene-d8	48.0		89 - 112		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.9		85 - 114		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	163000	8.224				
540-36-3	1,4-Difluorobenzene	284000	9.1				
3114-55-4	Chlorobenzene-d5	252000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	121000	13.794				

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
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* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: MSVOA_N Calibration Date(s): 09/30/2024 09/30/2024

Heated Purge: (Y/N) N Calibration Time(s): 12:25 14:48

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF100 = VN084213.D RRF050 = VN084214.D RRF020 = VN084215.D
RRF010 = VN084216.D RRF005 = VN084217.D RRF001 = VN084218.D

COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	$\overline{RRF}$	% RSD
Chloromethane	0.619	0.671	0.677	0.648	0.747	0.690	0.675	6.4
Vinyl Chloride	0.611	0.667	0.665	0.641	0.724	0.617	0.654	6.4
Bromomethane	0.368	0.432	0.432	0.424	0.501		0.431	10.9
Chloroethane	0.375	0.419	0.430	0.433	0.522	0.632	0.468	19.9
Trichlorofluoromethane	0.953	1.060	1.047	0.959	1.113	0.978	1.019	6.4
1,1,2-Trichlorotrifluoroethane	0.542	0.590	0.603	0.532	0.633	0.602	0.584	6.7
1,1-Dichloroethene	0.538	0.587	0.596	0.533	0.631	0.493	0.563	8.9
Acetone	0.299	0.342	0.337	0.298	0.336	0.299	0.318	6.8
Carbon Disulfide	1.588	1.723	1.746	1.650	1.908	2.080	1.782	10.2
Methyl tert-butyl Ether	1.825	2.033	2.035	1.802	2.049	1.656	1.900	8.6
Methylene Chloride	0.594	0.655	0.661	0.618	0.669	0.686	0.647	5.3
trans-1,2-Dichloroethene	0.555	0.622	0.619	0.570	0.627	0.546	0.590	6.2
1,1-Dichloroethane	1.075	1.193	1.163	1.084	1.226	1.046	1.131	6.4
2-Butanone	0.395	0.452	0.465	0.419	0.467	0.404	0.434	7.3
Carbon Tetrachloride	0.515	0.549	0.553	0.508	0.545	0.482	0.525	5.4
cis-1,2-Dichloroethene	0.670	0.741	0.741	0.655	0.767	0.703	0.713	6.2
Chloroform	1.083	1.204	1.205	1.117	1.259	1.181	1.175	5.5
1,1,1-Trichloroethane	0.997	1.102	1.089	1.018	1.154	0.972	1.055	6.7
Methylcyclohexane	0.567	0.583	0.577	0.507	0.534	0.428	0.533	11
Benzene	1.434	1.553	1.559	1.410	1.574	1.421	1.492	5.2
1,2-Dichloroethane	0.480	0.528	0.524	0.498	0.544	0.460	0.506	6.3
Trichloroethene	0.334	0.362	0.361	0.329	0.379	0.325	0.348	6.3
1,2-Dichloropropane	0.346	0.375	0.380	0.339	0.388	0.289	0.353	10.4
Bromodichloromethane	0.521	0.557	0.556	0.497	0.570	0.475	0.529	7.2
4-Methyl-2-Pentanone	0.449	0.508	0.510	0.468	0.484	0.387	0.468	9.9
Toluene	0.904	0.970	0.963	0.861	0.920	0.840	0.910	5.8
t-1,3-Dichloropropene	0.562	0.590	0.573	0.517	0.564	0.430	0.539	10.9
cis-1,3-Dichloropropene	0.592	0.638	0.608	0.569	0.606	0.469	0.580	10.2
1,1,2-Trichloroethane	0.317	0.349	0.347	0.316	0.340	0.288	0.326	7.3
2-Hexanone	0.341	0.387	0.387	0.340	0.357	0.285	0.349	10.8

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: MSVOA_N Calibration Date(s): 09/30/2024 09/30/2024

Heated Purge: (Y/N) N Calibration Time(s): 12:25 14:48

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF100 = VN084213.D RRF050 = VN084214.D RRF020 = VN084215.D
RRF010 = VN084216.D RRF005 = VN084217.D RRF001 = VN084218.D

COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	$\overline{RRF}$	% RSD
Dibromochloromethane	0.384	0.418	0.409	0.374	0.396	0.330	0.385	8.1
Tetrachloroethene	0.323	0.359	0.351	0.338	0.373	0.346	0.348	5
Chlorobenzene	1.068	1.170	1.143	1.069	1.173	1.028	1.109	5.5
Ethyl Benzene	1.988	2.121	2.028	1.840	2.030	1.756	1.961	6.9
m/p-Xylenes	0.741	0.806	0.779	0.695	0.729	0.600	0.725	10
o-Xylene	0.714	0.774	0.738	0.666	0.734	0.491	0.686	14.9
Styrene	1.234	1.312	1.238	1.112	1.159	0.918	1.162	11.9
Bromoform	0.282	0.315	0.303	0.260	0.288	0.239	0.281	10
Isopropylbenzene	3.737	4.132	4.055	3.677	3.864	3.428	3.815	6.8
1,1,2,2-Tetrachloroethane	1.001	1.183	1.187	1.127	1.291	1.095	1.147	8.5
1,3-Dichlorobenzene	1.624	1.787	1.780	1.646	1.843	1.679	1.727	5.1
1,4-Dichlorobenzene	1.628	1.784	1.734	1.638	1.889	1.789	1.744	5.7
1,2-Dichlorobenzene	1.555	1.710	1.740	1.613	1.769	1.770	1.693	5.3
1,2-Dichloroethane-d4	0.673	0.737	0.764	0.712	0.821		0.741	7.5
Dibromofluoromethane	0.308	0.324	0.341	0.316	0.359		0.330	6.1
Toluene-d8	1.189	1.243	1.242	1.148	1.242		1.213	3.5
4-Bromofluorobenzene	0.447	0.452	0.449	0.406	0.456		0.442	4.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: MSVOA_N Calibration Date/Time: 10/22/2024 12:50

Lab File ID: VN084450.D Init. Calib. Date(s): 09/30/2024 09/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:25 14:48

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.675	0.586	0.1	-13.19	20
Vinyl Chloride	0.654	0.602		-7.95	20
Bromomethane	0.431	0.382		-11.37	20
Chloroethane	0.468	0.386		-17.52	20
Trichlorofluoromethane	1.019	1.002		-1.67	20
1,1,2-Trichlorotrifluoroethane	0.584	0.581		-0.51	20
1,1-Dichloroethene	0.563	0.575		2.13	20
Acetone	0.318	0.304		-4.4	20
Carbon Disulfide	1.782	1.630		-8.53	20
Methyl tert-butyl Ether	1.900	1.950		2.63	20
Methylene Chloride	0.647	0.645		-0.31	20
trans-1,2-Dichloroethene	0.590	0.615		4.24	20
1,1-Dichloroethane	1.131	1.157	0.1	2.3	20
2-Butanone	0.434	0.422		-2.77	20
Carbon Tetrachloride	0.525	0.551		4.95	20
cis-1,2-Dichloroethene	0.713	0.729		2.24	20
Chloroform	1.175	1.210		2.98	20
1,1,1-Trichloroethane	1.055	1.084		2.75	20
Methylcyclohexane	0.533	0.580		8.82	20
Benzene	1.492	1.558		4.42	20
1,2-Dichloroethane	0.506	0.521		2.96	20
Trichloroethene	0.348	0.369		6.03	20
1,2-Dichloropropane	0.353	0.380		7.65	20
Bromodichloromethane	0.529	0.565		6.8	20
4-Methyl-2-Pentanone	0.468	0.488		4.27	20
Toluene	0.910	0.982		7.91	20
t-1,3-Dichloropropene	0.539	0.578		7.24	20
cis-1,3-Dichloropropene	0.580	0.629		8.45	20
1,1,2-Trichloroethane	0.326	0.358		9.82	20
2-Hexanone	0.349	0.360		3.15	20
Dibromochloromethane	0.385	0.425		10.39	20
Tetrachloroethene	0.348	0.359		3.16	20
Chlorobenzene	1.109	1.161	0.3	4.69	20
Ethyl Benzene	1.961	2.068		5.46	20
m/p-Xylenes	0.725	0.790		8.97	20
o-Xylene	0.686	0.757		10.35	20
Styrene	1.162	1.307		12.48	20
Bromoform	0.281	0.306	0.1	8.9	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: MSVOA_N Calibration Date/Time: 10/22/2024 12:50

Lab File ID: VN084450.D Init. Calib. Date(s): 09/30/2024 09/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:25 14:48

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.815	3.937		3.2	20
1,1,2,2-Tetrachloroethane	1.147	1.130	0.3	-1.48	20
1,3-Dichlorobenzene	1.727	1.782		3.13	20
1,4-Dichlorobenzene	1.744	1.783		2.24	20
1,2-Dichlorobenzene	1.693	1.708		0.89	20
1,2-Dichloroethane-d4	0.741	0.701		-5.4	20
Dibromofluoromethane	0.330	0.335		1.51	20
Toluene-d8	1.213	1.224		0.91	20
4-Bromofluorobenzene	0.442	0.456		3.17	20

All other compounds must meet a minimum RRF of 0.010.
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Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: MSVOA_N Calibration Date/Time: 10/22/2024 19:10

Lab File ID: VN084464.D Init. Calib. Date(s): 09/30/2024 09/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:25 14:48

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.675	0.600	0.1	-11.11	50
Vinyl Chloride	0.654	0.610		-6.73	50
Bromomethane	0.431	0.368		-14.62	50
Chloroethane	0.468	0.401		-14.32	50
Trichlorofluoromethane	1.019	1.030		1.08	50
1,1,2-Trichlorotrifluoroethane	0.584	0.590		1.03	50
1,1-Dichloroethene	0.563	0.581		3.2	50
Acetone	0.318	0.265		-16.67	50
Carbon Disulfide	1.782	1.625		-8.81	50
Methyl tert-butyl Ether	1.900	1.968		3.58	50
Methylene Chloride	0.647	0.678		4.79	50
trans-1,2-Dichloroethene	0.590	0.615		4.24	50
1,1-Dichloroethane	1.131	1.199	0.1	6.01	50
2-Butanone	0.434	0.421		-2.99	50
Carbon Tetrachloride	0.525	0.554		5.52	50
cis-1,2-Dichloroethene	0.713	0.748		4.91	50
Chloroform	1.175	1.260		7.23	50
1,1,1-Trichloroethane	1.055	1.120		6.16	50
Methylcyclohexane	0.533	0.546		2.44	50
Benzene	1.492	1.588		6.43	50
1,2-Dichloroethane	0.506	0.538		6.32	50
Trichloroethene	0.348	0.360		3.45	50
1,2-Dichloropropane	0.353	0.386		9.35	50
Bromodichloromethane	0.529	0.584		10.4	50
4-Methyl-2-Pentanone	0.468	0.515		10.04	50
Toluene	0.910	1.002		10.11	50
t-1,3-Dichloropropene	0.539	0.580		7.61	50
cis-1,3-Dichloropropene	0.580	0.632		8.97	50
1,1,2-Trichloroethane	0.326	0.365		11.96	50
2-Hexanone	0.349	0.380		8.88	50
Dibromochloromethane	0.385	0.436		13.25	50
Tetrachloroethene	0.348	0.357		2.59	50
Chlorobenzene	1.109	1.168	0.3	5.32	50
Ethyl Benzene	1.961	2.096		6.88	50
m/p-Xylenes	0.725	0.809		11.59	50
o-Xylene	0.686	0.772		12.54	50
Styrene	1.162	1.331		14.54	50
Bromoform	0.281	0.323	0.1	14.95	50

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: MSVOA_N Calibration Date/Time: 10/22/2024 19:10

Lab File ID: VN084464.D Init. Calib. Date(s): 09/30/2024 09/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:25 14:48

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.815	3.895		2.1	50
1,1,2,2-Tetrachloroethane	1.147	1.175	0.3	2.44	50
1,3-Dichlorobenzene	1.727	1.769		2.43	50
1,4-Dichlorobenzene	1.744	1.749		0.29	50
1,2-Dichlorobenzene	1.693	1.724		1.83	50
1,2-Dichloroethane-d4	0.741	0.738		-0.41	50
Dibromofluoromethane	0.330	0.346		4.85	50
Toluene-d8	1.213	1.258		3.71	50
4-Bromofluorobenzene	0.442	0.470		6.34	50

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	P4475	**OrderDate:**	10/22/2024 10:05:00 AM
Client:	Tetra Tech NUS, Inc.	**Project:**	CTO WE13
Contact:	Ernie Wu	**Location:**	K61,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4475-04	**BP-VPB-190-GW-238-240**	**Water**			**10/18/24**			**10/21/24**
			SVOC-SIMGroup1	8270-Modified		10/22/24	10/24/24	
P4475-06	**BP-VPB-190-GW-278-280**	**Water**			**10/21/24**			**10/21/24**
			SVOC-SIMGroup1	8270-Modified		10/22/24	10/24/24	

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Hit Summary Sheet
SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : BP-VPB-190-GW-238-240								
P4475-04	BP-VPB-190-GW-238-24 WATER	1,4-Dioxane	0.070	J	0.07	0.2	0.2	ug/L
		Total Svoc :			**0.07**			
		Total Concentration:			**0.07**			
Client ID : BP-VPB-190-GW-278-280								
P4475-06	BP-VPB-190-GW-278-28 WATER	1,4-Dioxane	0.410		0.07	0.21	0.21	ug/L
		Total Svoc :			**0.41**			
		Total Concentration:			**0.41**			

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-238-240	SDG No.:	P4475
Lab Sample ID:	P4475-04	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN034697.D	1	10/22/24 11:31	10/24/24 17:54	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.070	J	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.30		30 - 150		74%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.38		30 - 150		94%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.32		53 - 106		80%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		116%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6070	7.712				
1146-65-2	Naphthalene-d8	17800	10.479				
15067-26-2	Acenaphthene-d10	8150	14.329				
1517-22-2	Phenanthrene-d10	14700	17.069				
1719-03-5	Chrysene-d12	9320	21.25				
1520-96-3	Perylene-d12	8560	23.466				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/21/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-278-280	SDG No.:	P4475
Lab Sample ID:	P4475-06	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	960 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
BN034698.D	1	10/22/24 11:31	10/24/24 18:30	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.41		0.070	0.21	0.21	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.29		30 - 150		72%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		53 - 106		86%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.49		58 - 132		122%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	5960	7.712				
1146-65-2	Naphthalene-d8	17200	10.479				
15067-26-2	Acenaphthene-d10	7850	14.329				
1517-22-2	Phenanthrene-d10	14300	17.069				
1719-03-5	Chrysene-d12	9270	21.25				
1520-96-3	Perylene-d12	8680	23.467				

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

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Surrogate Summary

SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
P4475-04	BP-VPB-190-GW-238-240	2-Methylnaphthalene-d10	0.4	0.30	74		30	150
		Fluoranthene-d10	0.4	0.38	94		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.32	80		53	106
		Terphenyl-d14	0.4	0.46	116		58	132
P4475-06	BP-VPB-190-GW-278-280	2-Methylnaphthalene-d10	0.4	0.29	72		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.34	86		53	106
		Terphenyl-d14	0.4	0.49	122		58	132
PB164323BL	PB164323BL	2-Methylnaphthalene-d10	0.4	0.33	83		30	150
		Fluoranthene-d10	0.4	0.35	86		30	150
		Nitrobenzene-d5	0.4	0.34	86		55	111
		2-Fluorobiphenyl	0.4	0.37	93		53	106
		Terphenyl-d14	0.4	0.39	97		58	132
PB164323BS	PB164323BS	2-Methylnaphthalene-d10	0.4	0.47	118		30	150
		Fluoranthene-d10	0.4	0.33	82		30	150
		Nitrobenzene-d5	0.4	0.33	83		55	111
		2-Fluorobiphenyl	0.4	0.36	89		53	106
		Terphenyl-d14	0.4	0.37	94		58	132
PB164323BSD	PB164323BSD	2-Methylnaphthalene-d10	0.4	0.49	123		30	150
		Fluoranthene-d10	0.4	0.35	86		30	150
		Nitrobenzene-d5	0.4	0.35	86		55	111
		2-Fluorobiphenyl	0.4	0.38	94		53	106
		Terphenyl-d14	0.4	0.39	98		58	132

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN034708.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB164323BS	1,4-Dioxane	0.4	0.29	ug/L	73				70	130	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN034709.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB164323BSD	1,4-Dioxane	0.4	0.30	ug/L	75	3			70	130	20

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164323BL

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

Lab File ID: BN034703.D Lab Sample ID: PB164323BL

Instrument ID: BNA_N Date Extracted: 10/22/2024

Matrix: (soil/water) Water Date Analyzed: 10/24/2024

Level: (low/med) LOW Time Analyzed: 22:14

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB164323BS	PB164323BS	BN034708.D	10/25/2024
PB164323BSD	PB164323BSD	BN034709.D	10/25/2024
BP-VPB-190-GW-238-240	P4475-04	BN034697.D	10/24/2024
BP-VPB-190-GW-278-280	P4475-06	BN034698.D	10/24/2024

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4475 SDG NO.: P4475

Lab File ID: BN034683.D DFTPP Injection Date: 10/24/2024

Instrument ID: BNA_N DFTPP Injection Time: 07:59

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	66.1
68	Less than 2.0% of mass 69	0.9 (1.7) 1
69	Mass 69 relative abundance	54.4
70	Less than 2.0% of mass 69	0.3 (0.5) 1
127	10.0 - 80.0% of mass 198	60.3
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	6.5
275	10.0 - 60.0% of mass 198	20.6
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	7.8
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	9.1 (18.6) 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	BN034684.D	10/24/2024	09:11
SSTDICC0.2	SSTDICC0.2	BN034685.D	10/24/2024	09:47
SSTDICCC0.4	SSTDICCC0.4	BN034686.D	10/24/2024	10:23
SSTDICC0.8	SSTDICC0.8	BN034687.D	10/24/2024	10:59
SSTDICC1.6	SSTDICC1.6	BN034688.D	10/24/2024	11:35
SSTDICC3.2	SSTDICC3.2	BN034689.D	10/24/2024	12:11
SSTDICC5.0	SSTDICC5.0	BN034690.D	10/24/2024	12:48
BP-VPB-190-GW-238-240	P4475-04	BN034697.D	10/24/2024	17:54
BP-VPB-190-GW-278-280	P4475-06	BN034698.D	10/24/2024	18:30
SSTDCCC0.4EC	SSTDCCC0.4	BN034699.D	10/24/2024	19:06

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4475 SDG NO.: P4475

Lab File ID: BN034700.D DFTPP Injection Date: 10/24/2024

Instrument ID: BNA_N DFTPP Injection Time: 20:22

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	73.1
68	Less than 2.0% of mass 69	0.9 (1.6) 1
69	Mass 69 relative abundance	59.5
70	Less than 2.0% of mass 69	0.3 (0.5) 1
127	10.0 - 80.0% of mass 198	65.2
197	Less than 2.0% of mass 198	0.5
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	20.7
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	7.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	9.2 (21.6) 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	BN034701.D	10/24/2024	21:01
PB164323BL	PB164323BL	BN034703.D	10/24/2024	22:14
PB164323BS	PB164323BS	BN034708.D	10/25/2024	01:14
PB164323BSD	PB164323BSD	BN034709.D	10/25/2024	01:50
SSTDCCC0.4EC	SSTDCCC0.4	BN034719.D	10/25/2024	07:51

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 10/24/2024

Lab File ID: BN034686.D Time Analyzed: 10:23

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	6324	7.712	18497	10.48	9311	14.33
	UPPER LIMIT	12648	8.212	36994	10.979	18622	14.829
	LOWER LIMIT	3162	7.212	9248.5	9.979	4655.5	13.829
	EPA SAMPLE NO.						
01	BP-VPB-190-GW-238-240	6066	7.71	17751	10.48	8148	14.33
02	BP-VPB-190-GW-278-280	5957	7.71	17174	10.48	7846	14.33

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 10/24/2024

Lab File ID: BN034686.D Time Analyzed: 10:23

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	18185	17.069	10628	21.25	9595	23.467
	UPPER LIMIT	36370	17.569	21256	21.75	19190	23.967
	LOWER LIMIT	9092.5	16.569	5314	20.75	4797.5	22.967
	EPA SAMPLE NO.						
01	BP-VPB-190-GW-238-240	14702	17.07	9316	21.25	8560	23.47
02	BP-VPB-190-GW-278-280	14328	17.07	9271	21.25	8678	23.47

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.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 10/24/2024

Lab File ID: BN034701.D Time Analyzed: 21:01

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	5885	7.712	17350	10.48	8078	14.33
	UPPER LIMIT	11770	8.212	34700	10.979	16156	14.825
	LOWER LIMIT	2942.5	7.212	8675	9.979	4039	13.825
	EPA SAMPLE NO.						
01	PB164323BL	5922	7.71	16459	10.48	7081	14.33
02	PB164323BS	5858	7.71	16234	10.48	6999	14.33
03	PB164323BSD	6013	7.71	16515	10.48	7014	14.33

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 10/24/2024

Lab File ID: BN034701.D Time Analyzed: 21:01

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	14577	17.064	8841	21.248	8336	23.464
	UPPER LIMIT	29154	17.564	17682	21.748	16672	23.964
	LOWER LIMIT	7288.5	16.564	4420.5	20.748	4168	22.964
	EPA SAMPLE NO.						
01	PB164323BL	12571	17.06	6974	21.25	6412	23.46
02	PB164323BS	12898	17.06	7136	21.24	5990	23.46
03	PB164323BSD	12765	17.06	7084	21.24	5993	23.46

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	
Project:	CTO WE13			Date Received:	
Client Sample ID:	PB164323BL			SDG No.:	P4475
Lab Sample ID:	PB164323BL			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
BN034703.D	1	10/22/24 11:31	10/24/24 22:14	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.33		30 - 150		83%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		86%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		86%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		93%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.39		58 - 132		97%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	5920	7.712				
1146-65-2	Naphthalene-d8	16500	10.479				
15067-26-2	Acenaphthene-d10	7080	14.325				
1517-22-2	Phenanthrene-d10	12600	17.064				
1719-03-5	Chrysene-d12	6970	21.248				
1520-96-3	Perylene-d12	6410	23.461				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	PB164323BS	SDG No.:	P4475
Lab Sample ID:	PB164323BS	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
BN034708.D	1	10/22/24 11:31	10/25/24 01:14	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.29		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.47		30 - 150		118%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		82%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.33		55 - 111		83%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		53 - 106		89%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.37		58 - 132		94%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	5860	7.712				
1146-65-2	Naphthalene-d8	16200	10.479				
15067-26-2	Acenaphthene-d10	7000	14.329				
1517-22-2	Phenanthrene-d10	12900	17.057				
1719-03-5	Chrysene-d12	7140	21.241				
1520-96-3	Perylene-d12	5990	23.461				

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	PB164323BSD	SDG No.:	P4475
Lab Sample ID:	PB164323BSD	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
BN034709.D	1	10/22/24 11:31	10/25/24 01:50	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.30		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.49		30 - 150		123%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		86%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		55 - 111		86%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		94%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.39		58 - 132		98%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6010	7.712				
1146-65-2	Naphthalene-d8	16500	10.479				
15067-26-2	Acenaphthene-d10	7010	14.329				
1517-22-2	Phenanthrene-d10	12800	17.057				
1719-03-5	Chrysene-d12	7080	21.241				
1520-96-3	Perylene-d12	5990	23.464				

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

Response Factor Report BNA_N

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN102424.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Oct 24 13:17:02 2024
Response Via : Initial Calibration

Calibration Files
0.1 =BN034684.D 0.2 =BN034685.D 0.4 =BN034686.D 0.8 =BN034687.D 1.6 =BN034688.D 3.2 =BN034689.D 5.0 =BN034690.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	0.621	0.564	0.485	0.545	0.530	0.503	0.479	0.532	9.40
3)		n-Nitrosodimet...	0.775	0.766	0.704	0.842	0.827	0.761	0.749	0.775	6.06
4)	S	2-Fluorophenol	1.188	1.202	1.070	1.268	1.253	1.168	1.177	1.189	5.46
5)	S	Phenol-d6	1.556	1.554	1.386	1.658	1.657	1.569	1.597	1.568	5.85
6)		bis(2-Chloroet...	1.306	1.281	1.140	1.380	1.346	1.243	1.220	1.274	6.37
7)	I	Naphthalene-d8	----------ISTD----------								
8)	S	Nitrobenzene-d5	0.345	0.323	0.294	0.354	0.349	0.337	0.348	0.336	6.27
9)		Naphthalene	1.126	1.100	0.987	1.182	1.157	1.094	1.101	1.107	5.61
10)		Hexachlorobuta...	0.175	0.169	0.149	0.178	0.170	0.160	0.159	0.166	6.23
11)	SURR	2-Methylnaphth...	0.542	0.534	0.481	0.583	0.586	0.557	0.566	0.550	6.53
12)		2-Methylnaphth...	0.675	0.670	0.600	0.729	0.730	0.697	0.705	0.687	6.50
13)	I	Acenaphthene-d10	----------ISTD----------								
14)	S	2,4,6-Tribromo...	0.110	0.118	0.096	0.127	0.133	0.136	0.146	0.124	13.66
15)	S	2-Fluorobiphenyl	1.661	1.577	1.379	1.703	1.666	1.540	1.601	1.590	6.84
16)		Acenaphthylene	1.900	1.860	1.581	2.040	2.038	1.964	2.064	1.921	8.76
17)		Acenaphthene	1.318	1.286	1.122	1.435	1.407	1.329	1.370	1.324	7.79
18)		Fluorene	1.598	1.609	1.388	1.764	1.750	1.663	1.663	1.634	7.68
19)	I	Phenanthrene-d10	----------ISTD----------								
20)		4,6-Dinitro-2-...		0.048	0.043	0.055	0.059	0.063	0.067	0.056	16.66
21)		4-Bromophenyl-...	0.217	0.211	0.190	0.224	0.221	0.212	0.219	0.213	5.22
22)		Hexachlorobenzene	0.238	0.234	0.211	0.243	0.238	0.226	0.229	0.231	4.55
23)		Atrazine	0.151	0.158	0.140	0.183	0.181	0.181	0.179	0.168	10.55
24)		Pentachlorophenol		0.065	0.064	0.083	0.087	0.092	0.100	0.082	17.73
25)		Phenanthrene	1.214	1.208	1.065	1.273	1.244	1.191	1.215	1.202	5.49
26)		Anthracene	1.006	1.043	0.931	1.124	1.127	1.102	1.131	1.067	7.17
27)	SURR	Fluoranthene-d10	0.870	0.885	0.784	0.994	0.951	0.913	0.910	0.901	7.35
28)		Fluoranthene	1.188	1.222	1.092	1.380	1.333	1.290	1.269	1.253	7.66
29)	I	Chrysene-d12	----------ISTD----------								
30)		Pyrene	2.066	2.035	1.880	2.152	2.164	2.039	2.048	2.055	4.57
31)	S	Terphenyl-d14	0.813	0.797	0.740	0.867	0.865	0.820	0.820	0.817	5.27
32)		Benzo(a)anthra...	1.502	1.445	1.373	1.640	1.613	1.553	1.570	1.528	6.19
33)		Chrysene	1.642	1.568	1.442	1.709	1.643	1.533	1.531	1.581	5.68
34)		Bis(2-ethylhex...	0.901	0.779	0.722	0.843	0.878	0.915	1.030	0.867	11.48
35)	I	Perylene-d12	----------ISTD----------								

Response Factor Report BNA_N

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN102424.M

36)		Indeno(1,2,3-c...	1.562	1.447	1.418	1.596	1.620	1.517	1.624	1.541	5.39
37)		Benzo(b)fluora...	1.543	1.516	1.481	1.714	1.699	1.614	1.615	1.597	5.57
38)		Benzo(k)fluora...	1.511	1.491	1.386	1.723	1.712	1.596	1.613	1.576	7.75
39)	C	Benzo(a)pyrene	1.203	1.188	1.157	1.369	1.383	1.323	1.350	1.282	7.45
40)		Dibenzo(a,h)an...	1.236	1.139	1.113	1.246	1.283	1.201	1.288	1.215	5.58
41)		Benzo(g,h,i)pe...	1.397	1.287	1.262	1.377	1.387	1.290	1.378	1.340	4.28

(#) = Out of Range

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: BNA_N Calibration Date/Time: 10/24/2024 19:06

Lab File ID: BN034699.D Init. Calib. Date(s): 10/24/2024 10/24/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 09:11 12:48

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.550	0.482		-12.4	50.0
Fluoranthene-d10	0.901	0.776		-13.9	50.0
2-Fluorophenol	1.189	1.225		3.0	50.0
Phenol-d6	1.568	1.669		6.4	50.0
Nitrobenzene-d5	0.336	0.294		-12.5	50.0
2-Fluorobiphenyl	1.590	1.420		-10.7	50.0
2,4,6-Tribromophenol	0.124	0.099		-20.2	50.0
Terphenyl-d14	0.817	0.703		-14.0	50.0
1,4-Dioxane	0.532	0.488		-8.3	50.0

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: BNA_N Calibration Date/Time: 10/24/2024 21:01

Lab File ID: BN034701.D Init. Calib. Date(s): 10/24/2024 10/24/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 09:11 12:48

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.550	0.473		-14.0	20.0
Fluoranthene-d10	0.901	0.768		-14.8	20.0
2-Fluorophenol	1.189	1.172		-1.4	20.0
Phenol-d6	1.568	1.616		3.1	20.0
Nitrobenzene-d5	0.336	0.290		-13.7	20.0
2-Fluorobiphenyl	1.590	1.425		-10.4	20.0
2,4,6-Tribromophenol	0.124	0.096		-22.6	20.0
Terphenyl-d14	0.817	0.690		-15.5	20.0
1,4-Dioxane	0.532	0.489		-8.1	20.0

All other compounds must meet a minimum RRF of 0.010.

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: BNA_N Calibration Date/Time: 10/25/2024 07:51

Lab File ID: BN034719.D Init. Calib. Date(s): 10/24/2024 10/24/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 09:11 12:48

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.550	0.486		-11.6	50.0
Fluoranthene-d10	0.901	0.942		4.6	50.0
2-Fluorophenol	1.189	1.294		8.8	50.0
Phenol-d6	1.568	1.736		10.7	50.0
Nitrobenzene-d5	0.336	0.300		-10.7	50.0
2-Fluorobiphenyl	1.590	1.367		-14.0	50.0
2,4,6-Tribromophenol	0.124	0.113		-8.9	50.0
Terphenyl-d14	0.817	0.696		-14.8	50.0
1,4-Dioxane	0.532	0.475		-10.7	50.0

All other compounds must meet a minimum RRF of 0.010.

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 78-8922
www.chemtech.net

Chemtech Project Number: P4475

COC Number:

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
COMPANY: Tetra Tech	PROJECT NAME: NWIRP Bethpage	BILL TO: SEE CONTRACT PO#
ADDRESS: 4433 Corporation Lane Suite 300	PROJECT #: 112G08005-WE13 LOCATION: VPB-190	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

FAX: 2 & 10 DAYS*
HARD COPY: 2 & 10 DAYS*
EDD 2 & 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

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

ANALYSIS

	1	2	3	4	5	6	7	8	9
VOC(SW846-8260B)									
1,4 Dioxane (8270 SIM)									

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES A	1	2	3	4	5	6	7	8	9	COMMENTS
1.	BP-VPB-190-TB-20241018	QA		X	10/18/24	8:00	2	2										Trip Blank
2.	BP-VPB-190-DUP-20241018	QA		X	10/18/24	0:00	2	2										Field Duplicate
3.	BP-VPB-190-GW-223-225	AQ		X	10/18/24	11:35	2	2										
4.	BP-VPB-190-GW-238-240	AQ		X	10/18/24	13:55	3	2	1									
5.	BP-VPB-190-GW-258-260	AQ		X	10/21/24	10:55	2	2										
6.	BP-VPB-190-GW-278-280	AQ		X	10/21/24	12:55	3	2	1									
7.																		
8.																		
9.																		
10.																		

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

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. Jake Medow	10-21-24/1530	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2		2
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3	10-21-2024 1818	3

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☒ Cooler Temp 3.1°C
MeOH extraction requires an additional 4oz. Jar for percent solid ☒ Ice in Cooler?: Yes

Comments: 48hr TAT - For VOC's see worksheet #15 of SAP 2018 for VPB program VOC list
10-DAY TAT - For 1,4 Dioxane (8270 SIM)

Page 1 of 1

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

Shipment Complete ☐ YES ☐ NO

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4475 TETR06
Client Name : Tetra Tech NUS, Inc.
Client Contact : Ernie Wu
Invoice Name : Tetra Tech NUS, Inc.
Invoice Contact : Ernie Wu

Order Date : 10/22/2024 10:05:00 AM
Project Name : CTO WE13
Receive DateTime : ~~10/22/2024~~ 6:18:00 PM
Purchase Order : 10/21/2024

Project Mgr :
Report Type : Level 4
EDD Type : ADAPT
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4475-01	BP-VPB-190-TB-20241018	Water	10/18/2024	08:00					
					VOCMS Group1		8260-Low		2 Bus. Days
P4475-02	BP-VPB-190-DUP-20241018	Water	10/18/2024	00:00					
					VOCMS Group1		8260-Low		2 Bus. Days
P4475-03	BP-VPB-190-GW-223-225	Water	10/18/2024	11:35					
					VOCMS Group1		8260-Low		2 Bus. Days
P4475-04	BP-VPB-190-GW-238-240	Water	10/18/2024	13:55					
					VOCMS Group1		8260-Low		2 Bus. Days
P4475-05	BP-VPB-190-GW-258-260	Water	10/21/2024	10:55					
					VOCMS Group1		8260-Low		2 Bus. Days
P4475-06	BP-VPB-190-GW-278-280	Water	10/21/2024	12:55					
					VOCMS Group1		8260-Low		2 Bus. Days

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4475 TETR06
Client Name : Tetra Tech NUS, Inc.
Client Contact : Ernie Wu
Invoice Name : Tetra Tech NUS, Inc.
Invoice Contact : Ernie Wu

Order Date : 10/22/2024 10:05:00 AM
Project Name : CTO WE13
Receive DateTime : ~~10/22/2024~~ 6:18:00 PM
Purchase Order : 10/21/2024

Project Mgr :
Report Type : Level 4
EDD Type : ADAPT
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES

Relinguished By : [signature]
Date / Time : 10-22-24 1110

Received By : Sony
Date / Time : 10/22/24 11:10
Storage Area : VOA Refridgerator Room

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