



LAB CHRONICLE

OrderID:	P5283	OrderDate:	12/13/2024 1:07:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	L61,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5283-01	TT-TB-20241213	Water	VOCMS Group4	624.1	12/13/24		12/16/24	12/13/24
P5283-02	TT-RW10A-IDWGW-2 0241213	Water	VOCMS Group4	624.1	12/13/24		12/16/24	12/13/24



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

Hit Summary Sheet
SW-846

SDG No.: P5283
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:				0				
Total Voc :								
Total Concentration:								



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/13/24	
Project:	CTO WE13		Date Received:	12/13/24	
Client Sample ID:	TT-TB-20241213		SDG No.:	P5283	
Lab Sample ID:	P5283-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085214.D	1		12/16/24 13:09	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.20	U	1.20	5.00	ug/L
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/L
75-01-4	Vinyl Chloride	1.20	U	1.20	5.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	2.90	U	2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.10	U	1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	1.10	U	1.10	5.00	ug/L
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
67-64-1	Acetone	4.90	U	4.90	25.0	ug/L
75-15-0	Carbon Disulfide	0.93	U	0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.83	U	0.83	5.00	ug/L
79-20-9	Methyl Acetate	1.20	U	1.20	5.00	ug/L
75-09-2	Methylene Chloride	1.20	U	1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.95	U	0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.81	U	0.81	5.00	ug/L
110-82-7	Cyclohexane	1.00	U	1.00	5.00	ug/L
78-93-3	2-Butanone	3.60	U	3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.91	U	0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	1.10	U	1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.90	U	0.90	5.00	ug/L
67-66-3	Chloroform	0.72	U	0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.79	U	0.79	5.00	ug/L
108-87-2	Methylcyclohexane	0.89	U	0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.75	U	0.75	5.00	ug/L
71-43-2	Benzene	0.69	U	0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.75	5.00	ug/L
79-01-6	Trichloroethene	0.77	U	0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	12/13/24	
Project:	CTO WE13			Date Received:	12/13/24	
Client Sample ID:	TT-TB-20241213			SDG No.:	P5283	
Lab Sample ID:	P5283-01			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085214.D	1		12/16/24 13:09	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.70	U	0.70	5.00	ug/L
75-27-4	Bromodichloromethane	0.81	U	0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	4.20	U	4.20	25.0	ug/L
108-88-3	Toluene	0.72	U	0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.79	U	0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.83	U	0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.68	U	0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.68	U	0.68	5.00	ug/L
591-78-6	2-Hexanone	3.90	U	3.90	25.0	ug/L
124-48-1	Dibromochloromethane	0.72	U	0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.78	U	0.78	5.00	ug/L
127-18-4	Tetrachloroethene	0.94	U	0.94	5.00	ug/L
108-90-7	Chlorobenzene	0.67	U	0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.91	U	0.91	5.00	ug/L
67-72-1	Hexachloroethane	0.91	U	0.91	5.00	ug/L
100-41-4	Ethyl Benzene	0.73	U	0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	1.70	U	1.70	10.0	ug/L
95-47-6	o-Xylene	0.82	U	0.82	5.00	ug/L
100-42-5	Styrene	0.80	U	0.80	5.00	ug/L
75-25-2	Bromoform	1.00	U	1.00	5.00	ug/L
98-82-8	Isopropylbenzene	0.85	U	0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	1.70	U	1.70	5.00	ug/L
108-86-1	Bromobenzene	0.69	U	0.69	5.00	ug/L
103-65-1	n-propylbenzene	0.80	U	0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	0.81	U	0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.74	U	0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	0.82	U	0.82	5.00	ug/L
98-06-6	tert-butylbenzene	0.77	U	0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.83	U	0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	0.77	U	0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/13/24	
Project:	CTO WE13		Date Received:	12/13/24	
Client Sample ID:	TT-TB-20241213		SDG No.:	P5283	
Lab Sample ID:	P5283-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085214.D	1		12/16/24 13:09	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.82	U	0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.95	U	0.95	5.00	ug/L
104-51-8	n-Butylbenzene	0.86	U	0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.10	U	1.10	5.00	ug/L
91-20-3	Naphthalene	1.40	U	1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.40	U	1.40	5.00	ug/L
74-88-4	Methyl Iodide	0.94	U	0.94	5.00	ug/L
80-62-6	Methyl methacrylate	1.00	U	1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	32.3		91 - 110	108%	SPK: 30
2037-26-5	Toluene-d8	27.9		91 - 112	93%	SPK: 30
460-00-4	4-Bromofluorobenzene	24.7		63 - 112	82%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	24800	7.812			
540-36-3	1,4-Difluorobenzene	130000	9.1			
3114-55-4	Chlorobenzene-d5	118000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/13/24	
Project:	CTO WE13		Date Received:	12/13/24	
Client Sample ID:	TT-RW10A-IDWGW-20241213		SDG No.:	P5283	
Lab Sample ID:	P5283-02		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085215.D	1		12/16/24 13:33	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.20	U	1.20	5.00	ug/L
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/L
75-01-4	Vinyl Chloride	1.20	U	1.20	5.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	2.90	U	2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.10	U	1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	1.10	U	1.10	5.00	ug/L
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
67-64-1	Acetone	4.90	U	4.90	25.0	ug/L
75-15-0	Carbon Disulfide	0.93	U	0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.83	U	0.83	5.00	ug/L
79-20-9	Methyl Acetate	1.20	U	1.20	5.00	ug/L
75-09-2	Methylene Chloride	1.20	U	1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.95	U	0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.81	U	0.81	5.00	ug/L
110-82-7	Cyclohexane	1.00	U	1.00	5.00	ug/L
78-93-3	2-Butanone	3.60	U	3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.91	U	0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	1.10	U	1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.90	U	0.90	5.00	ug/L
67-66-3	Chloroform	0.72	U	0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.79	U	0.79	5.00	ug/L
108-87-2	Methylcyclohexane	0.89	U	0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.75	U	0.75	5.00	ug/L
71-43-2	Benzene	0.69	U	0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.75	5.00	ug/L
79-01-6	Trichloroethene	0.77	U	0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	12/13/24	
Project:	CTO WE13			Date Received:	12/13/24	
Client Sample ID:	TT-RW10A-IDWGW-20241213			SDG No.:	P5283	
Lab Sample ID:	P5283-02			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085215.D	1		12/16/24 13:33	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.70	U	0.70	5.00	ug/L
75-27-4	Bromodichloromethane	0.81	U	0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	4.20	U	4.20	25.0	ug/L
108-88-3	Toluene	0.72	U	0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.79	U	0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.83	U	0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.68	U	0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.68	U	0.68	5.00	ug/L
591-78-6	2-Hexanone	3.90	U	3.90	25.0	ug/L
124-48-1	Dibromochloromethane	0.72	U	0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.78	U	0.78	5.00	ug/L
127-18-4	Tetrachloroethene	0.94	U	0.94	5.00	ug/L
108-90-7	Chlorobenzene	0.67	U	0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.91	U	0.91	5.00	ug/L
67-72-1	Hexachloroethane	0.91	U	0.91	5.00	ug/L
100-41-4	Ethyl Benzene	0.73	U	0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	1.70	U	1.70	10.0	ug/L
95-47-6	o-Xylene	0.82	U	0.82	5.00	ug/L
100-42-5	Styrene	0.80	U	0.80	5.00	ug/L
75-25-2	Bromoform	1.00	U	1.00	5.00	ug/L
98-82-8	Isopropylbenzene	0.85	U	0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	1.70	U	1.70	5.00	ug/L
108-86-1	Bromobenzene	0.69	U	0.69	5.00	ug/L
103-65-1	n-propylbenzene	0.80	U	0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	0.81	U	0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.74	U	0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	0.82	U	0.82	5.00	ug/L
98-06-6	tert-butylbenzene	0.77	U	0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.83	U	0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	0.77	U	0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/13/24	
Project:	CTO WE13		Date Received:	12/13/24	
Client Sample ID:	TT-RW10A-IDWGW-20241213		SDG No.:	P5283	
Lab Sample ID:	P5283-02		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085215.D	1		12/16/24 13:33	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.82	U	0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.95	U	0.95	5.00	ug/L
104-51-8	n-Butylbenzene	0.86	U	0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.10	U	1.10	5.00	ug/L
91-20-3	Naphthalene	1.40	U	1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.40	U	1.40	5.00	ug/L
74-88-4	Methyl Iodide	0.94	U	0.94	5.00	ug/L
80-62-6	Methyl methacrylate	1.00	U	1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.0		91 - 110	100%	SPK: 30
2037-26-5	Toluene-d8	28.7		91 - 112	96%	SPK: 30
460-00-4	4-Bromofluorobenzene	24.3		63 - 112	81%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	25300	7.812			
540-36-3	1,4-Difluorobenzene	123000	9.1			
3114-55-4	Chlorobenzene-d5	107000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SDG No.: P5283

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
P5283-01	TT-TB-20241213	1,2-Dichloroethane-d4	30	32.4	108	91	110
		Toluene-d8	30	27.9	93	91	112
		4-Bromofluorobenzene	30	24.8	82	63	112
P5283-02	TT-RW10A-IDWGW-20241213	1,2-Dichloroethane-d4	30	30.0	100	91	110
		Toluene-d8	30	28.7	96	91	112
		4-Bromofluorobenzene	30	24.3	81	63	112
VN1216WBL01	VN1216WBL01	1,2-Dichloroethane-d4	30	31.1	104	91	110
		Toluene-d8	30	29.2	97	91	112
		4-Bromofluorobenzene	30	25.2	84	63	112
VN1216WBS01	VN1216WBS01	1,2-Dichloroethane-d4	30	30.0	100	91	110
		Toluene-d8	30	29.7	99	91	112
		4-Bromofluorobenzene	30	29.7	99	63	112
VN1216WBSD0	VN1216WBSD01	1,2-Dichloroethane-d4	30	30.4	101	91	110
		Toluene-d8	30	29.0	97	91	112
		4-Bromofluorobenzene	30	30.0	100	63	112

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5283

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Datafile : VN085208.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1216WBS01	Dichlorodifluoromethane	20	20.1	ug/L	101			72	118	
	Chloromethane	20	19.6	ug/L	98			1	205	
	Vinyl Chloride	20	19.3	ug/L	97			5	195	
	Bromomethane	20	20.0	ug/L	100			15	185	
	Chloroethane	20	19.9	ug/L	100			40	160	
	Trichlorofluoromethane	20	19.9	ug/L	100			50	150	
	1,1,2-Trichlorotrifluoroethane	20	19.0	ug/L	95			64	127	
	1,1-Dichloroethene	20	19.7	ug/L	99			50	150	
	Acrolein	100	110	ug/L	110			60	140	
	Acrylonitrile	100	93.1	ug/L	93			60	140	
	Acetone	100	100	ug/L	100			41	148	
	Carbon disulfide	20	19.1	ug/L	96			76	107	
	Methyl tert-butyl Ether	20	19.9	ug/L	100			82	114	
	Methyl Acetate	20	19.0	ug/L	95			63	139	
	Methylene Chloride	20	18.5	ug/L	93			60	140	
	trans-1,2-Dichloroethene	20	19.5	ug/L	98			70	130	
	1,1-Dichloroethane	20	19.6	ug/L	98			70	130	
	Cyclohexane	20	19.3	ug/L	97			79	113	
	2-Butanone	100	92.6	ug/L	93			69	129	
	Carbon Tetrachloride	20	19.0	ug/L	95			70	130	
	2,2-Dichloropropane	20	18.7	ug/L	94			62	139	
	cis-1,2-Dichloroethene	20	19.6	ug/L	98			81	112	
	Chloroform	20	19.8	ug/L	99			70	135	
	1,1,1-Trichloroethane	20	18.6	ug/L	93			70	130	
	Methylcyclohexane	20	18.7	ug/L	94			79	112	
	1,1-Dichloropropene	20	18.4	ug/L	92			70	139	
	Benzene	20	18.4	ug/L	92			65	135	
	1,2-Dichloroethane	20	18.3	ug/L	92			70	130	
	Trichloroethene	20	18.5	ug/L	93			65	135	
	1,2-Dichloropropane	20	18.5	ug/L	93			35	165	
	Dibromomethane	20	18.7	ug/L	94			72	138	
	Bromodichloromethane	20	18.3	ug/L	92			65	135	
	4-Methyl-2-Pentanone	100	90.8	ug/L	91			73	131	
	Toluene	20	18.9	ug/L	95			70	130	
	t-1,3-Dichloropropene	20	18.5	ug/L	93			50	150	
	cis-1,3-Dichloropropene	20	18.5	ug/L	93			25	175	
	1,1,2-Trichloroethane	20	18.0	ug/L	90			70	130	
	1,3-Dichloropropane	20	18.2	ug/L	91			70	141	
	2-Hexanone	100	89.7	ug/L	90			72	128	
	Dibromochloromethane	20	18.7	ug/L	94			70	135	
	1,2-Dibromoethane	20	18.3	ug/L	92			86	114	
	Tetrachloroethene	20	19.1	ug/L	96			70	130	
	Chlorobenzene	20	18.7	ug/L	94			65	135	
	1,1,1,2-Tetrachloroethane	20	18.6	ug/L	93			63	138	
	Hexachloroethane	20	18.8	ug/L	94			70	130	
	Ethyl Benzene	20	18.7	ug/L	94			60	140	
	m/p-Xylenes	40	38.0	ug/L	95			87	111	
	o-Xylene	20	19.2	ug/L	96			87	111	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5283

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Datafile : VN085208.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1216WBS01	Styrene	20	18.7	ug/L	94			85	106	
	Bromoform	20	17.9	ug/L	90			70	130	
	Isopropylbenzene	20	19.3	ug/L	97			86	112	
	1,1,2,2-Tetrachloroethane	20	18.6	ug/L	93			60	140	
	1,2,3-Trichloropropane	20	15.3	ug/L	77			61	148	
	Bromobenzene	20	18.7	ug/L	94			59	142	
	N-propylbenzene	20	18.6	ug/L	93			67	139	
	2-Chlorotoluene	20	19.0	ug/L	95			66	138	
	1,3,5-Trimethylbenzene	20	19.3	ug/L	97			66	139	
	4-Chlorotoluene	20	18.9	ug/L	95			66	141	
	tert-Butylbenzene	20	18.9	ug/L	95			56	140	
	1,2,4-Trimethylbenzene	20	19.5	ug/L	98			63	142	
	Sec-butylbenzene	20	19.0	ug/L	95			63	144	
	p-Isopropyltoluene	20	19.3	ug/L	97			57	147	
	1,3-Dichlorobenzene	20	18.6	ug/L	93			70	130	
	1,4-Dichlorobenzene	20	19.0	ug/L	95			65	135	
	n-Butylbenzene	20	19.1	ug/L	96			49	157	
	1,2-Dichlorobenzene	20	18.7	ug/L	94			65	135	
	1,2-Dibromo-3-Chloropropane	20	18.1	ug/L	91			69	122	
	1,2,4-Trichlorobenzene	20	19.5	ug/L	98			61	118	
	Hexachlorobutadiene	20	20.3	ug/L	102			16	187	
	Naphthalene	20	18.9	ug/L	95			45	152	
	1,2,3-Trichlorobenzene	20	19.5	ug/L	98			38	159	
	Methyl iodide	20	17.6	ug/L	88			70	130	
	Methyl methacrylate	20	18.1	ug/L	91			70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5283

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Datafile : VN085209.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1216WBSD01	Dichlorodifluoromethane	20	20.1	ug/L	101	0		72	118	20
	Chloromethane	20	19.1	ug/L	96	2		1	205	20
	Vinyl Chloride	20	20.9	ug/L	104	7		5	195	20
	Bromomethane	20	20.0	ug/L	100	0		15	185	20
	Chloroethane	20	21.2	ug/L	106	6		40	160	20
	Trichlorofluoromethane	20	20.6	ug/L	103	3		50	150	20
	1,1,2-Trichlorotrifluoroethane	20	19.9	ug/L	100	5		64	127	20
	1,1-Dichloroethene	20	19.9	ug/L	100	1		50	150	20
	Acrolein	100	110	ug/L	110	0		60	140	20
	Acrylonitrile	100	100	ug/L	100	7		60	140	20
	Acetone	100	120	ug/L	120	18		41	148	20
	Carbon disulfide	20	19.4	ug/L	97	1		76	107	20
	Methyl tert-butyl Ether	20	21.4	ug/L	107	7		82	114	20
	Methyl Acetate	20	21.8	ug/L	109	14		63	139	20
	Methylene Chloride	20	20.0	ug/L	100	7		60	140	20
	trans-1,2-Dichloroethene	20	19.4	ug/L	97	1		70	130	20
	1,1-Dichloroethane	20	20.3	ug/L	102	4		70	130	20
	Cyclohexane	20	19.6	ug/L	98	1		79	113	20
	2-Butanone	100	110	ug/L	110	17		69	129	20
	Carbon Tetrachloride	20	19.4	ug/L	97	2		70	130	20
	2,2-Dichloropropane	20	19.7	ug/L	99	5		62	139	20
	cis-1,2-Dichloroethene	20	20.6	ug/L	103	5		81	112	20
	Chloroform	20	20.2	ug/L	101	2		70	135	20
	1,1,1-Trichloroethane	20	19.3	ug/L	97	4		70	130	20
	Methylcyclohexane	20	19.0	ug/L	95	1		79	112	20
	1,1-Dichloropropene	20	19.7	ug/L	99	7		70	139	20
	Benzene	20	19.5	ug/L	98	6		65	135	20
	1,2-Dichloroethane	20	19.6	ug/L	98	6		70	130	20
	Trichloroethene	20	19.5	ug/L	98	5		65	135	20
	1,2-Dichloropropane	20	19.2	ug/L	96	3		35	165	20
	Dibromomethane	20	20.0	ug/L	100	6		72	138	20
	Bromodichloromethane	20	20.0	ug/L	100	8		65	135	20
	4-Methyl-2-Pentanone	100	100	ug/L	100	9		73	131	20
	Toluene	20	19.5	ug/L	98	3		70	130	20
	t-1,3-Dichloropropene	20	19.9	ug/L	100	7		50	150	20
	cis-1,3-Dichloropropene	20	19.8	ug/L	99	6		25	175	20
	1,1,2-Trichloroethane	20	19.7	ug/L	99	10		70	130	20
	1,3-Dichloropropane	20	20.2	ug/L	101	10		70	141	20
	2-Hexanone	100	100	ug/L	100	11		72	128	20
	Dibromochloromethane	20	19.8	ug/L	99	5		70	135	20
	1,2-Dibromoethane	20	19.7	ug/L	99	7		86	114	20
	Tetrachloroethene	20	19.8	ug/L	99	3		70	130	20
	Chlorobenzene	20	19.7	ug/L	99	5		65	135	20
	1,1,1,2-Tetrachloroethane	20	20.6	ug/L	103	10		63	138	20
	Hexachloroethane	20	19.6	ug/L	98	4		70	130	20
	Ethyl Benzene	20	19.6	ug/L	98	4		60	140	20
	m/p-Xylenes	40	39.6	ug/L	99	4		87	111	20
	o-Xylene	20	20.3	ug/L	102	6		87	111	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5283

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Datafile : VN085209.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1216WBSD01	Styrene	20	20.1	ug/L	101	7		85	106	20
	Bromoform	20	19.8	ug/L	99	10		70	130	20
	Isopropylbenzene	20	19.9	ug/L	100	3		86	112	20
	1,1,2,2-Tetrachloroethane	20	20.4	ug/L	102	9		60	140	20
	1,2,3-Trichloropropane	20	16.7	ug/L	84	9		61	148	20
	Bromobenzene	20	20.1	ug/L	101	7		59	142	20
	N-propylbenzene	20	19.2	ug/L	96	3		67	139	20
	2-Chlorotoluene	20	19.9	ug/L	100	5		66	138	20
	1,3,5-Trimethylbenzene	20	19.6	ug/L	98	1		66	139	20
	4-Chlorotoluene	20	19.5	ug/L	98	3		66	141	20
	tert-Butylbenzene	20	19.8	ug/L	99	4		56	140	20
	1,2,4-Trimethylbenzene	20	20.1	ug/L	101	3		63	142	20
	Sec-butylbenzene	20	19.8	ug/L	99	4		63	144	20
	p-Isopropyltoluene	20	19.8	ug/L	99	2		57	147	20
	1,3-Dichlorobenzene	20	19.6	ug/L	98	5		70	130	20
	1,4-Dichlorobenzene	20	20.0	ug/L	100	5		65	135	20
	n-Butylbenzene	20	19.3	ug/L	97	1		49	157	20
	1,2-Dichlorobenzene	20	20.2	ug/L	101	7		65	135	20
	1,2-Dibromo-3-Chloropropane	20	21.6	ug/L	108	17		69	122	20
	1,2,4-Trichlorobenzene	20	20.6	ug/L	103	5		61	118	20
	Hexachlorobutadiene	20	20.6	ug/L	103	1		16	187	20
	Naphthalene	20	20.6	ug/L	103	8		45	152	20
	1,2,3-Trichlorobenzene	20	20.6	ug/L	103	5		38	159	20
	Methyl iodide	20	18.3	ug/L	92	4		70	130	20
	Methyl methacrylate	20	19.9	ug/L	100	9		70	130	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1216WBL01

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P5283

SAS No.: P5283 SDG NO.: P5283

Lab File ID: VN085210.D

Lab Sample ID: VN1216WBL01

Date Analyzed: 12/16/2024

Time Analyzed: 11:21

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
VN1216WBS01	VN1216WBS01	VN085208.D	12/16/2024
VN1216WBSD01	VN1216WBSD01	VN085209.D	12/16/2024
TT-TB-20241213	P5283-01	VN085214.D	12/16/2024
TT-RW10A-IDWGW-20241213	P5283-02	VN085215.D	12/16/2024

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P5283 SAS No.: P5283 SDG NO.: P5283
Lab File ID: VN085116.D BFB Injection Date: 12/06/2024
Instrument ID: MSVOA_N BFB Injection Time: 08:14
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	18.1
75	30.0 - 60.0% of mass 95	51.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.5 (0.6) 1
174	50.0 - 100.0% of mass 95	77.9
175	5.0 - 9.0% of mass 174	5.9 (7.6) 1
176	95.0 - 101.0% of mass 174	74.3 (95.4) 1
177	5.0 - 9.0% of mass 176	4.5 (6.1) 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
VSTDIC005	VSTDIC005	VN085117.D	12/06/2024	10:02
VSTDIC020	VSTDIC020	VN085118.D	12/06/2024	10:26
VSTDIC050	VSTDIC050	VN085119.D	12/06/2024	10:49
VSTDIC100	VSTDIC100	VN085120.D	12/06/2024	11:13
VSTDIC150	VSTDIC150	VN085121.D	12/06/2024	11:37

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P5283 SAS No.: P5283 SDG NO.: P5283
Lab File ID: VN085206.D BFB Injection Date: 12/16/2024
Instrument ID: MSVOA_N BFB Injection Time: 08:58
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	18.9
75	30.0 - 60.0% of mass 95	52.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	78.8
175	5.0 - 9.0% of mass 174	6.3 (8) 1
176	95.0 - 101.0% of mass 174	76.5 (97.1) 1
177	5.0 - 9.0% of mass 176	5.3 (6.9) 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
VSTDCCC020	VSTDCCC020	VN085207.D	12/16/2024	09:42
VN1216WBS01	VN1216WBS01	VN085208.D	12/16/2024	10:19
VN1216WBSD01	VN1216WBSD01	VN085209.D	12/16/2024	10:57
VN1216WBL01	VN1216WBL01	VN085210.D	12/16/2024	11:21
TT-TB-20241213	P5283-01	VN085214.D	12/16/2024	13:09
TT-RW10A-IDWG-20241213	P5283-02	VN085215.D	12/16/2024	13:33
VSTDCCC020EC	VSTDCCC020	VN085216.D	12/16/2024	16:33

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P5283 SAS No.: P5283 SDG NO.: P5283
Lab File ID: VN085207.D Date Analyzed: 12/16/2024
Instrument ID: MSVOA_N Time Analyzed: 09:42
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	33412	7.81	185962	9.09	170233	11.87
UPPER LIMIT	66824	8.312	371924	9.594	340466	12.365
LOWER LIMIT	16706	7.312	92981	8.594	85116.5	11.365
EPA SAMPLE NO.						
TT-TB-20241213	24766	7.81	129916	9.10	118401	11.87
TT-RW10A-IDWGW-20241213	25309	7.81	122588	9.10	107111	11.87
VN1216WBL01	28325	7.82	149220	9.10	129681	11.87
VN1216WBS01	30825	7.81	169823	9.10	155663	11.87
VN1216WBSD01	29855	7.81	161867	9.10	148673	11.87

IS1 = Bromochloromethane
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.



QC SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBL01		SDG No.:	P5283
Lab Sample ID:	VN1216WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085210.D	1		12/16/24 11:21	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.20	U	1.20	5.00	ug/L
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/L
75-01-4	Vinyl Chloride	1.20	U	1.20	5.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	2.90	U	2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.10	U	1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	1.10	U	1.10	5.00	ug/L
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
67-64-1	Acetone	4.90	U	4.90	25.0	ug/L
75-15-0	Carbon Disulfide	0.93	U	0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.83	U	0.83	5.00	ug/L
79-20-9	Methyl Acetate	1.20	U	1.20	5.00	ug/L
75-09-2	Methylene Chloride	1.20	U	1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.95	U	0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.81	U	0.81	5.00	ug/L
110-82-7	Cyclohexane	1.00	U	1.00	5.00	ug/L
78-93-3	2-Butanone	3.60	U	3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.91	U	0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	1.10	U	1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.90	U	0.90	5.00	ug/L
67-66-3	Chloroform	0.72	U	0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.79	U	0.79	5.00	ug/L
108-87-2	Methylcyclohexane	0.89	U	0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.75	U	0.75	5.00	ug/L
71-43-2	Benzene	0.69	U	0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.75	5.00	ug/L
79-01-6	Trichloroethene	0.77	U	0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBL01		SDG No.:	P5283
Lab Sample ID:	VN1216WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085210.D	1		12/16/24 11:21	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.70	U	0.70	5.00	ug/L
75-27-4	Bromodichloromethane	0.81	U	0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	4.20	U	4.20	25.0	ug/L
108-88-3	Toluene	0.72	U	0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.79	U	0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.83	U	0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.68	U	0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.68	U	0.68	5.00	ug/L
591-78-6	2-Hexanone	3.90	U	3.90	25.0	ug/L
124-48-1	Dibromochloromethane	0.72	U	0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.78	U	0.78	5.00	ug/L
127-18-4	Tetrachloroethene	0.94	U	0.94	5.00	ug/L
108-90-7	Chlorobenzene	0.67	U	0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.91	U	0.91	5.00	ug/L
67-72-1	Hexachloroethane	0.91	U	0.91	5.00	ug/L
100-41-4	Ethyl Benzene	0.73	U	0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	1.70	U	1.70	10.0	ug/L
95-47-6	o-Xylene	0.82	U	0.82	5.00	ug/L
100-42-5	Styrene	0.80	U	0.80	5.00	ug/L
75-25-2	Bromoform	1.00	U	1.00	5.00	ug/L
98-82-8	Isopropylbenzene	0.85	U	0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	1.70	U	1.70	5.00	ug/L
108-86-1	Bromobenzene	0.69	U	0.69	5.00	ug/L
103-65-1	n-propylbenzene	0.80	U	0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	0.81	U	0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.74	U	0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	0.82	U	0.82	5.00	ug/L
98-06-6	tert-butylbenzene	0.77	U	0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.83	U	0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	0.77	U	0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBL01		SDG No.:	P5283
Lab Sample ID:	VN1216WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085210.D	1		12/16/24 11:21	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.82	U	0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.95	U	0.95	5.00	ug/L
104-51-8	n-Butylbenzene	0.86	U	0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.10	U	1.10	5.00	ug/L
91-20-3	Naphthalene	1.40	U	1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.40	U	1.40	5.00	ug/L
74-88-4	Methyl Iodide	0.94	U	0.94	5.00	ug/L
80-62-6	Methyl methacrylate	1.00	U	1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	31.1		91 - 110	104%	SPK: 30
2037-26-5	Toluene-d8	29.2		91 - 112	97%	SPK: 30
460-00-4	4-Bromofluorobenzene	25.2		63 - 112	84%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	28300	7.818			
540-36-3	1,4-Difluorobenzene	149000	9.1			
3114-55-4	Chlorobenzene-d5	130000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBS01		SDG No.:	P5283
Lab Sample ID:	VN1216WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085208.D	1		12/16/24 10:19	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	20.1		1.20	5.00	ug/L
74-87-3	Chloromethane	19.6		1.20	5.00	ug/L
75-01-4	Vinyl Chloride	19.3		1.20	5.00	ug/L
74-83-9	Bromomethane	20.0		1.40	5.00	ug/L
75-00-3	Chloroethane	19.9		2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	19.9		1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.0		1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	19.7		1.10	5.00	ug/L
107-02-8	Acrolein	110		9.30	25.0	ug/L
107-13-1	Acrylonitrile	93.1		3.70	25.0	ug/L
67-64-1	Acetone	100		4.90	25.0	ug/L
75-15-0	Carbon Disulfide	19.1		0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	19.9		0.83	5.00	ug/L
79-20-9	Methyl Acetate	19.0		1.20	5.00	ug/L
75-09-2	Methylene Chloride	18.5		1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	19.5		0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	19.6		0.81	5.00	ug/L
110-82-7	Cyclohexane	19.3		1.00	5.00	ug/L
78-93-3	2-Butanone	92.6		3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	19.0		0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	18.7		1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.6		0.90	5.00	ug/L
67-66-3	Chloroform	19.8		0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.6		0.79	5.00	ug/L
108-87-2	Methylcyclohexane	18.7		0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	18.4		0.75	5.00	ug/L
71-43-2	Benzene	18.4		0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	18.3		0.75	5.00	ug/L
79-01-6	Trichloroethene	18.5		0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	18.5		0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBS01		SDG No.:	P5283
Lab Sample ID:	VN1216WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085208.D	1		12/16/24 10:19	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	18.7		0.70	5.00	ug/L
75-27-4	Bromodichloromethane	18.3		0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	90.8		4.20	25.0	ug/L
108-88-3	Toluene	18.9		0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.5		0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.5		0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	18.0		0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	18.2		0.68	5.00	ug/L
591-78-6	2-Hexanone	89.7		3.90	25.0	ug/L
124-48-1	Dibromochloromethane	18.7		0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	18.3		0.78	5.00	ug/L
127-18-4	Tetrachloroethene	19.1		0.94	5.00	ug/L
108-90-7	Chlorobenzene	18.7		0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	18.6		0.91	5.00	ug/L
67-72-1	Hexachloroethane	18.8		0.91	5.00	ug/L
100-41-4	Ethyl Benzene	18.7		0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	38.0		1.70	10.0	ug/L
95-47-6	o-Xylene	19.2		0.82	5.00	ug/L
100-42-5	Styrene	18.7		0.80	5.00	ug/L
75-25-2	Bromoform	17.9		1.00	5.00	ug/L
98-82-8	Isopropylbenzene	19.3		0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.6		0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	15.3		1.70	5.00	ug/L
108-86-1	Bromobenzene	18.7		0.69	5.00	ug/L
103-65-1	n-propylbenzene	18.6		0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	19.0		0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	19.3		0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	18.9		0.82	5.00	ug/L
98-06-6	tert-butylbenzene	18.9		0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	19.5		0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	19.0		0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBS01		SDG No.:	P5283
Lab Sample ID:	VN1216WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085208.D	1		12/16/24 10:19	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	19.3		0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.6		0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.0		0.95	5.00	ug/L
104-51-8	n-Butylbenzene	19.1		0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.7		0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.1		0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	19.5		1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	20.3		1.10	5.00	ug/L
91-20-3	Naphthalene	18.9		1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.5		1.40	5.00	ug/L
74-88-4	Methyl Iodide	17.6		0.94	5.00	ug/L
80-62-6	Methyl methacrylate	18.1		1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.0		91 - 110	100%	SPK: 30
2037-26-5	Toluene-d8	29.7		91 - 112	99%	SPK: 30
460-00-4	4-Bromofluorobenzene	29.7		63 - 112	99%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	30800	7.806			
540-36-3	1,4-Difluorobenzene	170000	9.1			
3114-55-4	Chlorobenzene-d5	156000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBSD01		SDG No.:	P5283
Lab Sample ID:	VN1216WBSD01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085209.D	1		12/16/24 10:57	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	20.1		1.20	5.00	ug/L
74-87-3	Chloromethane	19.1		1.20	5.00	ug/L
75-01-4	Vinyl Chloride	20.9		1.20	5.00	ug/L
74-83-9	Bromomethane	20.0		1.40	5.00	ug/L
75-00-3	Chloroethane	21.2		2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	20.6		1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.9		1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	19.9		1.10	5.00	ug/L
107-02-8	Acrolein	110		9.30	25.0	ug/L
107-13-1	Acrylonitrile	100		3.70	25.0	ug/L
67-64-1	Acetone	120		4.90	25.0	ug/L
75-15-0	Carbon Disulfide	19.4		0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	21.4		0.83	5.00	ug/L
79-20-9	Methyl Acetate	21.8		1.20	5.00	ug/L
75-09-2	Methylene Chloride	20.0		1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	19.4		0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	20.3		0.81	5.00	ug/L
110-82-7	Cyclohexane	19.6		1.00	5.00	ug/L
78-93-3	2-Butanone	110		3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	19.4		0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	19.7		1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	20.6		0.90	5.00	ug/L
67-66-3	Chloroform	20.2		0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.3		0.79	5.00	ug/L
108-87-2	Methylcyclohexane	19.0		0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	19.7		0.75	5.00	ug/L
71-43-2	Benzene	19.5		0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	19.6		0.75	5.00	ug/L
79-01-6	Trichloroethene	19.5		0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	19.2		0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBSD01		SDG No.:	P5283
Lab Sample ID:	VN1216WBSD01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085209.D	1		12/16/24 10:57	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	20.0		0.70	5.00	ug/L
75-27-4	Bromodichloromethane	20.0		0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		4.20	25.0	ug/L
108-88-3	Toluene	19.5		0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.9		0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.8		0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	19.7		0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	20.2		0.68	5.00	ug/L
591-78-6	2-Hexanone	100		3.90	25.0	ug/L
124-48-1	Dibromochloromethane	19.8		0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	19.7		0.78	5.00	ug/L
127-18-4	Tetrachloroethene	19.8		0.94	5.00	ug/L
108-90-7	Chlorobenzene	19.7		0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	20.6		0.91	5.00	ug/L
67-72-1	Hexachloroethane	19.6		0.91	5.00	ug/L
100-41-4	Ethyl Benzene	19.6		0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	39.6		1.70	10.0	ug/L
95-47-6	o-Xylene	20.3		0.82	5.00	ug/L
100-42-5	Styrene	20.1		0.80	5.00	ug/L
75-25-2	Bromoform	19.8		1.00	5.00	ug/L
98-82-8	Isopropylbenzene	19.9		0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.4		0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	16.7		1.70	5.00	ug/L
108-86-1	Bromobenzene	20.1		0.69	5.00	ug/L
103-65-1	n-propylbenzene	19.2		0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	19.9		0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	19.6		0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	19.5		0.82	5.00	ug/L
98-06-6	tert-butylbenzene	19.8		0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	20.1		0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	19.8		0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1216WBSD01		SDG No.:	P5283
Lab Sample ID:	VN1216WBSD01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085209.D	1		12/16/24 10:57	VN121624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	19.8		0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	19.6		0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	20.0		0.95	5.00	ug/L
104-51-8	n-Butylbenzene	19.3		0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	20.2		0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	21.6		0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	20.6		1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	20.6		1.10	5.00	ug/L
91-20-3	Naphthalene	20.6		1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	20.6		1.40	5.00	ug/L
74-88-4	Methyl Iodide	18.3		0.94	5.00	ug/L
80-62-6	Methyl methacrylate	19.9		1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.4		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	29.0		91 - 112	97%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.0		63 - 112	100%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	29900	7.812			
540-36-3	1,4-Difluorobenzene	162000	9.1			
3114-55-4	Chlorobenzene-d5	149000	11.865			

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>TETR06</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>P5283</u>
Instrument ID:	<u>MSVOA_N</u>	SAS No.:	<u>P5283</u>
Heated Purge: (Y/N)	<u>N</u>	SDG No.:	<u>P5283</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)
		Calibration Date(s):	<u>12/06/2024</u>
		Calibration Time(s):	<u>10:02</u>

LAB FILE ID:	RRF005 = VN085117.D	RRF020 = VN085118.D	RRF050 = VN085119.D	RRF100 = VN085120.D	RRF150 = VN085121.D	RRF =		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	RRF	% RSD
Dichlorodifluoromethane	2.072	2.467	2.334	2.565	2.563		2.400	8.6
Chloromethane	2.058	2.093	2.013	2.202	2.256		2.124	4.8
Vinyl Chloride	2.171	2.147	2.026	2.258	2.263		2.173	4.5
Bromomethane	1.578	1.334	1.261	1.364	1.361		1.380	8.6
Chloroethane	1.331	1.302	1.259	1.382	1.401		1.335	4.4
Trichlorofluoromethane	3.495	3.461	3.321	3.725	3.781		3.557	5.4
1,1,2-Trichlorotrifluoroethane	1.976	1.924	1.900	2.062	2.084		1.989	4.1
1,1-Dichloroethene	1.669	1.752	1.743	1.978	1.993		1.827	8.1
Acrolein	0.309	0.255	0.299	0.338	0.365		0.313	13.2
Acrylonitrile	0.809	0.837	0.858	0.977	0.994		0.895	9.4
Acetone	0.217	0.228	0.233	0.270	0.264		0.243	9.6
Carbon Disulfide	5.377	5.368	5.062	5.709	5.789		5.461	5.4
Methyl tert-Butyl Ether	4.744	5.454	5.524	6.311	6.507		5.708	12.5
Methyl Acetate	2.041	2.062	2.033	2.305	2.337		2.155	7
Methylene Chloride	2.198	2.012	1.927	2.127	2.100		2.073	5.1
trans-1,2-Dichloroethene	1.876	1.799	1.782	2.012	2.027		1.899	6.1
1,1-Dichloroethane	3.621	3.416	3.269	3.705	3.693		3.541	5.4
Cyclohexane	0.458	0.563	0.563	0.591	0.584		0.552	9.8
2-Butanone	0.207	0.217	0.218	0.235	0.234		0.222	5.4
Carbon Tetrachloride	0.619	0.587	0.566	0.591	0.593		0.591	3.2
2,2-Dichloropropane	0.624	0.608	0.602	0.636	0.634		0.621	2.5
cis-1,2-Dichloroethene	2.011	2.125	2.092	2.320	2.366		2.183	7
Chloroform	3.779	3.635	3.508	3.813	3.814		3.710	3.6
1,1,1-Trichloroethane	0.683	0.665	0.619	0.657	0.652		0.655	3.6
Methylcyclohexane	0.453	0.481	0.526	0.579	0.593		0.526	11.5
1,1-Dichloropropene	0.458	0.482	0.468	0.506	0.506		0.484	4.5
Benzene	1.581	1.501	1.456	1.543	1.523		1.521	3.1
1,2-Dichloroethane	0.564	0.505	0.491	0.518	0.510		0.518	5.4
Trichloroethene	0.367	0.356	0.344	0.373	0.371		0.362	3.4
1,2-Dichloropropane	0.388	0.370	0.351	0.366	0.368		0.368	3.7

* 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.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>TETR06</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>P5283</u>
Instrument ID:	<u>MSVOA_N</u>	SAS No.:	<u>P5283</u>
Heated Purge: (Y/N)	<u>N</u>	SDG No.:	<u>P5283</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25 (mm)</u>
		Calibration Date(s):	<u>12/06/2024</u>
		Calibration Time(s):	<u>10:02</u>

LAB FILE ID:	RRF005 = VN085117.D	RRF020 = VN085118.D	RRF050 = VN085119.D					
	RRF100 = VN085120.D	RRF150 = VN085121.D	RRF =					
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	RRF	% RSD
Dibromomethane	0.274	0.266	0.253	0.263	0.264		0.264	2.8
Bromodichloromethane	0.596	0.554	0.541	0.565	0.568		0.565	3.6
4-Methyl-2-Pentanone	0.431	0.494	0.483	0.524	0.516		0.490	7.5
Toluene	1.780	1.713	1.680	1.799	1.777		1.750	2.9
t-1,3-Dichloropropene	0.518	0.517	0.541	0.592	0.603		0.554	7.4
cis-1,3-Dichloropropene	0.581	0.590	0.583	0.629	0.636		0.604	4.4
1,1,2-Trichloroethane	0.387	0.355	0.336	0.353	0.349		0.356	5.2
1,3-Dichloropropane	0.598	0.585	0.582	0.607	0.606		0.596	2
2-Hexanone	0.314	0.376	0.371	0.402	0.391		0.371	9.2
Dibromochloromethane	0.455	0.426	0.413	0.438	0.438		0.434	3.7
1,2-Dibromoethane	0.358	0.348	0.348	0.371	0.369		0.359	3.1
Tetrachloroethene	0.407	0.358	0.342	0.359	0.351		0.363	7
Chlorobenzene	1.074	1.056	1.037	1.121	1.113		1.080	3.3
1,1,1,2-Tetrachloroethane	0.432	0.384	0.384	0.413	0.404		0.403	5
Hexachloroethane	0.273	0.275	0.271	0.304	0.304		0.285	6
Ethyl Benzene	1.626	1.739	1.845	2.032	2.041		1.857	9.8
m/p-Xylenes	0.601	0.713	0.706	0.775	0.775		0.714	10
o-Xylene	0.561	0.648	0.681	0.734	0.729		0.671	10.5
Styrene	0.892	1.097	1.164	1.270	1.266		1.138	13.7
Bromoform	0.294	0.275	0.282	0.301	0.302		0.291	4.1
Isopropylbenzene	1.409	1.656	1.747	1.932	1.903		1.730	12.3
1,1,2,2-Tetrachloroethane	0.551	0.532	0.503	0.526	0.521		0.526	3.3
1,2,3-Trichloropropane	0.582	0.533	0.473	0.510	0.502		0.520	7.9
Bromobenzene	0.411	0.420	0.422	0.462	0.451		0.433	5.1
n-propylbenzene	1.744	2.020	2.082	2.286	2.264		2.079	10.6
2-Chlorotoluene	1.143	1.271	1.266	1.378	1.371		1.286	7.5
1,3,5-Trimethylbenzene	1.241	1.441	1.488	1.630	1.609		1.482	10.6
4-Chlorotoluene	1.212	1.262	1.274	1.399	1.378		1.305	6.1
tert-butylbenzene	0.978	1.173	1.226	1.368	1.340		1.217	12.8
1,2,4-Trimethylbenzene	1.151	1.429	1.499	1.644	1.596		1.464	13.2

* 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.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P5283 SAS No.: P5283 SDG No.: P5283

Instrument ID: MSVOA_N Calibration Date(s): 12/06/2024 12/06/2024

Heated Purge: (Y/N) N Calibration Time(s): 10:02 11:37

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

LAB FILE ID:								
RRF005 = VN085117.D			RRF020 = VN085118.D			RRF050 = VN085119.D		
RRF100 = VN085120.D			RRF150 = VN085121.D			RRF =		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	RRF	% RSD
sec-Butylbenzene	1.421	1.669	1.727	1.927	1.901		1.729	11.8
p-Isopropyltoluene	1.090	1.372	1.460	1.626	1.620		1.434	15.4
1,3-Dichlorobenzene	0.779	0.765	0.772	0.842	0.816		0.795	4.1
1,4-Dichlorobenzene	0.725	0.742	0.759	0.829	0.818		0.775	6
n-Butylbenzene	0.903	1.085	1.230	1.399	1.395		1.203	17.6
1,2-Dichlorobenzene	0.743	0.721	0.734	0.787	0.767		0.750	3.5
1,2-Dibromo-3-Chloropropane	0.095	0.103	0.101	0.112	0.116		0.105	8
1,2,4-Trichlorobenzene	0.280	0.342	0.364	0.421	0.431		0.367	16.8
Hexachlorobutadiene	0.206	0.184	0.173	0.196	0.196		0.191	6.7
Naphthalene	0.704	0.971	1.176	1.410	1.447		1.142	27.3
1,2,3-Trichlorobenzene	0.280	0.342	0.364	0.421	0.431		0.367	16.8
1,2-Dichloroethane-d4	2.462	2.393	2.263	2.370	2.414		2.380	3.1
Toluene-d8	1.462	1.443	1.392	1.372	1.367		1.407	3.1
4-Bromofluorobenzene	0.479	0.495	0.500	0.509	0.499		0.496	2.2
Methyl Iodide	2.117	2.346	2.450	2.826	2.930		2.534	13.4
Methyl methacrylate	0.299	0.343	0.346	0.382	0.388		0.352	10.1

* 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.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P5283 SAS No.: P5283 SDG No.: P5283

Instrument ID: MSVOA_N Calibration Date/Time: 12/16/2024 09:42

Lab File ID: VN085207.D Init. Calib. Date(s): 12/06/2024 12/06/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:02 11:37

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	2.400	2.526		5.25	
Chloromethane	2.124	2.227		4.85	
Vinyl Chloride	2.173	2.251	0.1	3.59	
Bromomethane	1.380	1.402	0.1	1.59	
Chloroethane	1.335	1.437		7.64	
Trichlorofluoromethane	3.557	3.724		4.7	
1,1,2-Trichlorotrifluoroethane	1.989	2.005		0.8	
1,1-Dichloroethene	1.827	1.847	0.1	1.1	
Acrolein	0.313	0.235		-24.92	
Acrylonitrile	0.895	0.853		-4.69	
Acetone	0.243	0.258		6.17	
Carbon Disulfide	5.461	5.505		0.81	
Methyl tert-Butyl Ether	5.708	5.845		2.4	
Methyl Acetate	2.155	2.103		-2.41	
Methylene Chloride	2.073	2.023		-2.41	
trans-1,2-Dichloroethene	1.899	1.907		0.42	
1,1-Dichloroethane	3.541	3.578	0.2	1.04	
Cyclohexane	0.552	0.526		-4.71	
2-Butanone	0.222	0.210		-5.41	
Carbon Tetrachloride	0.591	0.558	0.1	-5.58	
2,2-Dichloropropane	0.621	0.615		-0.97	
cis-1,2-Dichloroethene	2.183	2.239		2.57	
Chloroform	3.710	3.808	0.2	2.64	
1,1,1-Trichloroethane	0.655	0.631	0.1	-3.66	
Methylcyclohexane	0.526	0.500		-4.94	
1,1-Dichloropropene	0.484	0.466		-3.72	
Benzene	1.521	1.463	0.5	-3.81	
1,2-Dichloroethane	0.518	0.501	0.1	-3.28	
Trichloroethene	0.362	0.361	0.3	-0.28	
1,2-Dichloropropane	0.368	0.353		-4.08	
Dibromomethane	0.264	0.255		-3.41	
Bromodichloromethane	0.565	0.546	0.2	-3.36	
4-Methyl-2-Pentanone	0.490	0.448		-8.57	
Toluene	1.750	1.703	0.4	-2.69	
t-1,3-Dichloropropene	0.554	0.532	0.1	-3.97	
cis-1,3-Dichloropropene	0.604	0.590	0.2	-2.32	
1,1,2-Trichloroethane	0.356	0.344	0.1	-3.37	
1,3-Dichloropropane	0.596	0.572		-4.03	

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P5283 SAS No.: P5283 SDG No.: P5283

Instrument ID: MSVOA_N Calibration Date/Time: 12/16/2024 09:42

Lab File ID: VN085207.D Init. Calib. Date(s): 12/06/2024 12/06/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:02 11:37

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
2-Hexanone	0.371	0.350		-5.66	
Dibromochloromethane	0.434	0.412	0.1	-5.07	
1,2-Dibromoethane	0.359	0.343		-4.46	
Tetrachloroethene	0.363	0.361	0.2	-0.55	
Chlorobenzene	1.080	1.049	0.5	-2.87	
1,1,1,2-Tetrachloroethane	0.403	0.391		-2.98	
Hexachloroethane	0.285	0.275		-3.51	
Ethyl Benzene	1.857	1.831	0.1	-1.4	
m/p-Xylenes	0.714	0.703	0.3	-1.54	
o-Xylene	0.671	0.678	0.3	1.04	
Styrene	1.138	1.138	0.3	0	
Bromoform	0.291	0.271	0.1	-6.87	
Isopropylbenzene	1.730	1.731		0.06	
1,1,2,2-Tetrachloroethane	0.526	0.495	0.3	-5.89	
1,2,3-Trichloropropane	0.520	0.399		-23.27	
Bromobenzene	0.433	0.425		-1.85	
n-propylbenzene	2.079	2.023		-2.69	
2-Chlorotoluene	1.286	1.262		-1.87	
1,3,5-Trimethylbenzene	1.482	1.477		-0.34	
4-Chlorotoluene	1.305	1.276		-2.22	
tert-butylbenzene	1.217	1.210		-0.57	
1,2,4-Trimethylbenzene	1.464	1.478		0.96	
sec-Butylbenzene	1.729	1.683		-2.66	
p-Isopropyltoluene	1.434	1.422		-0.84	
1,3-Dichlorobenzene	0.795	0.761	0.2	-4.28	
1,4-Dichlorobenzene	0.775	0.751	0.2	-3.1	
n-Butylbenzene	1.203	1.164		-3.24	
1,2-Dichlorobenzene	0.750	0.725	0.2	-3.33	
1,2-Dibromo-3-Chloropropane	0.105	0.090		-14.29	
1,2,4-Trichlorobenzene	0.367	0.353	0.2	-3.82	
Hexachlorobutadiene	0.191	0.191		0	
Naphthalene	1.142	1.062		-7.01	
1,2,3-Trichlorobenzene	0.367	0.353		-3.82	
1,2-Dichloroethane-d4	2.380	2.398	0.01	0.76	
Toluene-d8	1.407	1.384	0.01	-1.63	
4-Bromofluorobenzene	0.496	0.487	0.2	-1.82	
Methyl Iodide	2.534	2.157		-14.88	
Methyl methacrylate	0.352	0.327		-7.1	

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P5283 SAS No.: P5283 SDG No.: P5283

Instrument ID: MSVOA_N Calibration Date/Time: 12/16/2024 16:33

Lab File ID: VN085216.D Init. Calib. Date(s): 12/06/2024 12/06/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:02 11:37

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	2.400	2.542		5.92	50
Chloromethane	2.124	2.194		3.3	50
Vinyl Chloride	2.173	2.299	0.1	5.8	50
Bromomethane	1.380	1.295	0.1	-6.16	50
Chloroethane	1.335	1.435		7.49	50
Trichlorofluoromethane	3.557	3.621		1.8	50
1,1,2-Trichlorotrifluoroethane	1.989	2.079		4.53	50
1,1-Dichloroethene	1.827	1.851	0.1	1.31	50
Acrolein	0.313	0.345		10.22	50
Acrylonitrile	0.895	0.922		3.02	50
Acetone	0.243	0.286		17.69	50
Carbon Disulfide	5.461	5.430		-0.57	50
Methyl tert-Butyl Ether	5.708	5.892		3.22	50
Methyl Acetate	2.155	2.321		7.7	50
Methylene Chloride	2.073	1.985		-4.24	50
trans-1,2-Dichloroethene	1.899	1.907		0.42	50
1,1-Dichloroethane	3.541	3.573	0.2	0.9	50
Cyclohexane	0.552	0.527		-4.53	50
2-Butanone	0.222	0.233		4.95	50
Carbon Tetrachloride	0.591	0.590	0.1	-0.17	50
2,2-Dichloropropane	0.621	0.621		0	50
cis-1,2-Dichloroethene	2.183	2.196		0.6	50
Chloroform	3.710	3.818	0.2	2.91	50
1,1,1-Trichloroethane	0.655	0.667	0.1	1.83	50
Methylcyclohexane	0.526	0.503		-4.37	50
1,1-Dichloropropene	0.484	0.483		-0.21	50
Benzene	1.521	1.495	0.5	-1.71	50
1,2-Dichloroethane	0.518	0.508	0.1	-1.93	50
Trichloroethene	0.362	0.357	0.3	-1.38	50
1,2-Dichloropropane	0.368	0.358		-2.72	50
Dibromomethane	0.264	0.267		1.14	50
Bromodichloromethane	0.565	0.559	0.2	-1.06	50
4-Methyl-2-Pentanone	0.490	0.496		1.22	50
Toluene	1.750	1.715	0.4	-2	50
t-1,3-Dichloropropene	0.554	0.539	0.1	-2.71	50
cis-1,3-Dichloropropene	0.604	0.579	0.2	-4.14	50
1,1,2-Trichloroethane	0.356	0.358	0.1	0.56	50
1,3-Dichloropropane	0.596	0.598		0.34	50

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P5283 SAS No.: P5283 SDG No.: P5283

Instrument ID: MSVOA_N Calibration Date/Time: 12/16/2024 16:33

Lab File ID: VN085216.D Init. Calib. Date(s): 12/06/2024 12/06/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:02 11:37

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
2-Hexanone	0.371	0.371		0	50
Dibromochloromethane	0.434	0.437	0.1	0.69	50
1,2-Dibromoethane	0.359	0.359		0	50
Tetrachloroethene	0.363	0.364	0.2	0.28	50
Chlorobenzene	1.080	1.100	0.5	1.85	50
1,1,1,2-Tetrachloroethane	0.403	0.400		-0.74	50
Hexachloroethane	0.285	0.297		4.21	50
Ethyl Benzene	1.857	1.856	0.1	-0.05	50
m/p-Xylenes	0.714	0.728	0.3	1.96	50
o-Xylene	0.671	0.684	0.3	1.94	50
Styrene	1.138	1.149	0.3	0.97	50
Bromoform	0.291	0.286	0.1	-1.72	50
Isopropylbenzene	1.730	1.742		0.69	50
1,1,2,2-Tetrachloroethane	0.526	0.537	0.3	2.09	50
1,2,3-Trichloropropane	0.520	0.497		-4.42	50
Bromobenzene	0.433	0.445		2.77	50
n-propylbenzene	2.079	2.096		0.82	50
2-Chlorotoluene	1.286	1.290		0.31	50
1,3,5-Trimethylbenzene	1.482	1.515		2.23	50
4-Chlorotoluene	1.305	1.313		0.61	50
tert-butylbenzene	1.217	1.212		-0.41	50
1,2,4-Trimethylbenzene	1.464	1.522		3.96	50
sec-Butylbenzene	1.729	1.739		0.58	50
p-Isopropyltoluene	1.434	1.465		2.16	50
1,3-Dichlorobenzene	0.795	0.800	0.2	0.63	50
1,4-Dichlorobenzene	0.775	0.796	0.2	2.71	50
n-Butylbenzene	1.203	1.189		-1.16	50
1,2-Dichlorobenzene	0.750	0.765	0.2	2	50
1,2-Dibromo-3-Chloropropane	0.105	0.105		0	50
1,2,4-Trichlorobenzene	0.367	0.358	0.2	-2.45	50
Hexachlorobutadiene	0.191	0.187		-2.09	50
Naphthalene	1.142	1.106		-3.15	50
1,2,3-Trichlorobenzene	0.367	0.358		-2.45	50
1,2-Dichloroethane-d4	2.380	2.419	0.01	1.64	50
Toluene-d8	1.407	1.395	0.01	-0.85	50
4-Bromofluorobenzene	0.496	0.502	0.2	1.21	50
Methyl Iodide	2.534	2.053		-18.98	50
Methyl methacrylate	0.352	0.365		3.69	50

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