

Hit Summary Sheet
SW-846

SDG No.: Q2594

Client: Environmental Restoration, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID: Q2594-01	CC-071325-RW CC-071325-RW	Water	Isobutyl hexadecyl ether	* 41.0	J	0	0	ug/L
Total Tics :				41.0				
Total Concentration:				41.0				



SAMPLE DATA

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	07/14/25	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	07/14/25	
Client Sample ID:	CC-071325-RW		SDG No.:	Q2594	
Lab Sample ID:	Q2594-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087365.D	5	07/18/25 14:41	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	3.90	UQ	3.90	25.0	ug/L
74-87-3	Chloromethane	3.20	U	3.20	25.0	ug/L
75-01-4	Vinyl Chloride	4.20	U	4.20	25.0	ug/L
74-83-9	Bromomethane	4.00	U	4.00	25.0	ug/L
75-00-3	Chloroethane	11.6	U	11.6	25.0	ug/L
75-69-4	Trichlorofluoromethane	4.00	U	4.00	25.0	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	4.80	U	4.80	25.0	ug/L
75-35-4	1,1-Dichloroethene	3.80	U	3.80	25.0	ug/L
67-64-1	Acetone	23.0	U	23.0	130	ug/L
75-15-0	Carbon Disulfide	4.10	UQ	4.10	25.0	ug/L
1634-04-4	Methyl tert-Butyl Ether	3.90	U	3.90	25.0	ug/L
79-20-9	Methyl Acetate	4.60	U	4.60	25.0	ug/L
75-09-2	Methylene Chloride	4.30	U	4.30	25.0	ug/L
156-60-5	trans-1,2-Dichloroethene	4.10	U	4.10	25.0	ug/L
75-34-3	1,1-Dichloroethane	3.40	U	3.40	25.0	ug/L
110-82-7	Cyclohexane	4.60	UQ	4.60	25.0	ug/L
78-93-3	2-Butanone	10.0	U	10.0	130	ug/L
56-23-5	Carbon Tetrachloride	3.70	U	3.70	25.0	ug/L
156-59-2	cis-1,2-Dichloroethene	4.00	U	4.00	25.0	ug/L
67-66-3	Chloroform	2.80	U	2.80	25.0	ug/L
71-55-6	1,1,1-Trichloroethane	3.20	U	3.20	25.0	ug/L
108-87-2	Methylcyclohexane	3.70	U	3.70	25.0	ug/L
71-43-2	Benzene	2.30	U	2.30	25.0	ug/L
107-06-2	1,2-Dichloroethane	2.50	U	2.50	25.0	ug/L
79-01-6	Trichloroethene	2.50	U	2.50	25.0	ug/L
78-87-5	1,2-Dichloropropane	2.30	U	2.30	25.0	ug/L
75-27-4	Bromodichloromethane	3.20	U	3.20	25.0	ug/L
108-10-1	4-Methyl-2-Pentanone	15.2	U	15.2	130	ug/L
108-88-3	Toluene	2.30	U	2.30	25.0	ug/L
10061-02-6	t-1,3-Dichloropropene	3.60	U	3.60	25.0	ug/L

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	07/14/25	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	07/14/25	
Client Sample ID:	CC-071325-RW		SDG No.:	Q2594	
Lab Sample ID:	Q2594-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087365.D	5	07/18/25 14:41	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	3.40	U	3.40	25.0	ug/L
79-00-5	1,1,2-Trichloroethane	2.30	U	2.30	25.0	ug/L
591-78-6	2-Hexanone	15.8	UQ	15.8	130	ug/L
124-48-1	Dibromochloromethane	3.30	U	3.30	25.0	ug/L
106-93-4	1,2-Dibromoethane	2.80	U	2.80	25.0	ug/L
127-18-4	Tetrachloroethene	4.20	U	4.20	25.0	ug/L
108-90-7	Chlorobenzene	2.40	U	2.40	25.0	ug/L
100-41-4	Ethyl Benzene	2.80	U	2.80	25.0	ug/L
179601-23-1	m/p-Xylenes	6.50	U	6.50	50.0	ug/L
95-47-6	o-Xylene	3.40	U	3.40	25.0	ug/L
100-42-5	Styrene	3.60	U	3.60	25.0	ug/L
75-25-2	Bromoform	4.70	U	4.70	25.0	ug/L
98-82-8	Isopropylbenzene	3.90	U	3.90	25.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.20	U	2.20	25.0	ug/L
108-67-8	1,3,5-Trimethylbenzene	3.00	U	3.00	25.0	ug/L
541-73-1	1,3-Dichlorobenzene	3.40	U	3.40	25.0	ug/L
106-46-7	1,4-Dichlorobenzene	4.10	U	4.10	25.0	ug/L
95-50-1	1,2-Dichlorobenzene	3.40	U	3.40	25.0	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	4.30	U	4.30	25.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	5.20	U	5.20	25.0	ug/L
87-61-6	1,2,3-Trichlorobenzene	5.40	U	5.40	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	29.8		91 - 110	99%	SPK: 30
2037-26-5	Toluene-d8	29.2		91 - 112	97%	SPK: 30
460-00-4	4-Bromofluorobenzene	27.8		63 - 112	93%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	45300	7.8			
540-36-3	1,4-Difluorobenzene	203000	9.082			
3114-55-4	Chlorobenzene-d5	184000	11.847			
TENTATIVE IDENTIFIED COMPOUNDS						
1000406-32-8	Isobutyl hexadecyl ether	41.0	J		13.7	ug/L

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	07/14/25	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	07/14/25	
Client Sample ID:	CC-071325-RW		SDG No.:	Q2594	
Lab Sample ID:	Q2594-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087365.D	5	07/18/25 14:41	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SDG No.: Q2594

Client: Environmental Restoration, LLC

Analytical Method: SW624.1

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%)	
							Low	High
Q2594-01	CC-071325-RW	1,2-Dichloroethane-d4	30	29.8	99		91	110
		Toluene-d8	30	29.2	97		91	112
		4-Bromofluorobenzene	30	27.8	93		63	112
VN0718WBL01	VN0718WBL01	1,2-Dichloroethane-d4	30	32.8	109		91	110
		Toluene-d8	30	29.8	99		91	112
		4-Bromofluorobenzene	30	28.8	96		63	112
VN0718WBS01	VN0718WBS01	1,2-Dichloroethane-d4	30	31.3	104		91	110
		Toluene-d8	30	30.0	100		91	112
		4-Bromofluorobenzene	30	31.4	105		63	112
VN0718WBSD0	VN0718WBSD01	1,2-Dichloroethane-d4	30	32.4	108		91	110
		Toluene-d8	30	30.2	101		91	112
		4-Bromofluorobenzene	30	31.9	106		63	112

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SDG No.:		Q2594	SW-846		Analytical Method:		SW624.1
Client:		Environmental Restoration, LLC	Datafile :		VN087354.D		

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN0718WBS01	Dichlorodifluoromethane	20	16.1	ug/L	81			72	118	
	Chloromethane	20	17.9	ug/L	90			1	205	
	Vinyl Chloride	20	17.6	ug/L	88			5	195	
	Bromomethane	20	18.6	ug/L	93			15	185	
	Chloroethane	20	20.6	ug/L	103			40	160	
	Trichlorofluoromethane	20	21.6	ug/L	108			50	150	
	1,1,2-Trichlorotrifluoroethane	20	15.9	ug/L	79			64	127	
	1,1-Dichloroethene	20	15.3	ug/L	77			50	150	
	Acetone	100	81.8	ug/L	82			41	148	
	Carbon disulfide	20	14.3	ug/L	72		*	76	107	
	Methyl tert-butyl Ether	20	19.6	ug/L	98			82	114	
	Methyl Acetate	20	20.9	ug/L	104			63	139	
	Methylene Chloride	20	18.5	ug/L	93			60	140	
	trans-1,2-Dichloroethene	20	15.9	ug/L	79			70	130	
	1,1-Dichloroethane	20	18.0	ug/L	90			70	130	
	Cyclohexane	20	16.5	ug/L	83			79	113	
	2-Butanone	100	110	ug/L	110			69	129	
	Carbon Tetrachloride	20	21.3	ug/L	106			70	130	
	cis-1,2-Dichloroethene	20	18.0	ug/L	90			81	112	
	Chloroform	20	19.6	ug/L	98			70	135	
	1,1,1-Trichloroethane	20	21.3	ug/L	106			70	130	
	Methylcyclohexane	20	18.8	ug/L	94			79	112	
	Benzene	20	19.1	ug/L	96			65	135	
	1,2-Dichloroethane	20	22.8	ug/L	114			70	130	
	Trichloroethene	20	19.5	ug/L	98			65	135	
	1,2-Dichloropropane	20	20.4	ug/L	102			35	165	
	Bromodichloromethane	20	21.8	ug/L	109			65	135	
	4-Methyl-2-Pentanone	100	120	ug/L	120			73	131	
	Toluene	20	19.5	ug/L	98			70	130	
	t-1,3-Dichloropropene	20	21.1	ug/L	106			50	150	
	cis-1,3-Dichloropropene	20	20.0	ug/L	100			25	175	
	1,1,2-Trichloroethane	20	20.4	ug/L	102			70	130	
	2-Hexanone	100	130	ug/L	130		*	72	128	
	Dibromochloromethane	20	21.7	ug/L	109			70	135	
	1,2-Dibromoethane	20	20.2	ug/L	101			86	114	
	Tetrachloroethene	20	19.9	ug/L	100			70	130	
	Chlorobenzene	20	19.7	ug/L	99			65	135	
	Ethyl Benzene	20	19.6	ug/L	98			60	140	
	m/p-Xylenes	40	39.7	ug/L	99			87	111	
	o-Xylene	20	20.5	ug/L	103			87	111	
	Styrene	20	19.2	ug/L	96			85	106	
	Bromoform	20	20.8	ug/L	104			70	130	
	Isopropylbenzene	20	20.6	ug/L	103			86	112	
	1,1,2,2-Tetrachloroethane	20	20.7	ug/L	104			60	140	
	1,3,5-Trimethylbenzene	20	21.4	ug/L	107			66	139	
	1,3-Dichlorobenzene	20	20.6	ug/L	103			70	130	
	1,4-Dichlorobenzene	20	21.5	ug/L	108			65	135	
	1,2-Dichlorobenzene	20	21.3	ug/L	106			65	135	



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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q2594</u>	Analytical Method:	<u>SW624.1</u>
Client:	<u>Environmental Restoration, LLC</u>	Datafile :	<u>VN087354.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN0718WBS01	1,2-Dibromo-3-Chloropropane	20	21.0	ug/L	105			69	122	
	1,2,4-Trichlorobenzene	20	23.0	ug/L	115			61	118	
	1,2,3-Trichlorobenzene	20	23.0	ug/L	115			38	159	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SDG No.:	Q2594	SW-846	Analytical Method:	SW624.1
Client:	Environmental Restoration, LLC	Datafile :	VN087361.D	

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN0718WBSD01	Dichlorodifluoromethane	20	14.0	ug/L	70	15	*	72	118	20
	Chloromethane	20	16.1	ug/L	81	11		1	205	20
	Vinyl Chloride	20	15.8	ug/L	79	11		5	195	20
	Bromomethane	20	12.2	ug/L	61	42	*	15	185	20
	Chloroethane	20	20.1	ug/L	101	2		40	160	20
	Trichlorofluoromethane	20	20.0	ug/L	100	8		50	150	20
	1,1,2-Trichlorotrifluoroethane	20	14.9	ug/L	75	5		64	127	20
	1,1-Dichloroethene	20	14.5	ug/L	73	5		50	150	20
	Acetone	100	89.4	ug/L	89	8		41	148	20
	Carbon disulfide	20	13.6	ug/L	68	6	*	76	107	20
	Methyl tert-butyl Ether	20	18.4	ug/L	92	6		82	114	20
	Methyl Acetate	20	20.5	ug/L	103	1		63	139	20
	Methylene Chloride	20	17.4	ug/L	87	7		60	140	20
	trans-1,2-Dichloroethene	20	15.4	ug/L	77	3		70	130	20
	1,1-Dichloroethane	20	17.7	ug/L	89	1		70	130	20
	Cyclohexane	20	14.6	ug/L	73	13	*	79	113	20
	2-Butanone	100	110	ug/L	110	0		69	129	20
	Carbon Tetrachloride	20	20.5	ug/L	103	3		70	130	20
	cis-1,2-Dichloroethene	20	16.8	ug/L	84	7		81	112	20
	Chloroform	20	19.0	ug/L	95	3		70	135	20
	1,1,1-Trichloroethane	20	20.4	ug/L	102	4		70	130	20
	Methylcyclohexane	20	16.5	ug/L	83	12		79	112	20
	Benzene	20	18.8	ug/L	94	2		65	135	20
	1,2-Dichloroethane	20	22.5	ug/L	113	1		70	130	20
	Trichloroethene	20	18.3	ug/L	92	6		65	135	20
	1,2-Dichloropropane	20	19.4	ug/L	97	5		35	165	20
	Bromodichloromethane	20	21.6	ug/L	108	1		65	135	20
	4-Methyl-2-Pentanone	100	120	ug/L	120	0		73	131	20
	Toluene	20	18.7	ug/L	94	4		70	130	20
	t-1,3-Dichloropropene	20	20.0	ug/L	100	6		50	150	20
	cis-1,3-Dichloropropene	20	19.7	ug/L	99	1		25	175	20
	1,1,2-Trichloroethane	20	19.8	ug/L	99	3		70	130	20
	2-Hexanone	100	120	ug/L	120	8		72	128	20
	Dibromochloromethane	20	21.8	ug/L	109	0		70	135	20
	1,2-Dibromoethane	20	19.6	ug/L	98	3		86	114	20
	Tetrachloroethene	20	18.7	ug/L	94	6		70	130	20
	Chlorobenzene	20	18.9	ug/L	95	4		65	135	20
	Ethyl Benzene	20	18.2	ug/L	91	7		60	140	20
	m/p-Xylenes	40	37.0	ug/L	93	6		87	111	20
	o-Xylene	20	18.6	ug/L	93	10		87	111	20
	Styrene	20	18.8	ug/L	94	2		85	106	20
	Bromoform	20	20.4	ug/L	102	2		70	130	20
	Isopropylbenzene	20	19.0	ug/L	95	8		86	112	20
	1,1,2,2-Tetrachloroethane	20	20.0	ug/L	100	4		60	140	20
	1,3,5-Trimethylbenzene	20	19.9	ug/L	100	7		66	139	20
	1,3-Dichlorobenzene	20	20.3	ug/L	102	1		70	130	20
	1,4-Dichlorobenzene	20	19.8	ug/L	99	9		65	135	20
	1,2-Dichlorobenzene	20	20.2	ug/L	101	5		65	135	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q2594</u>	Analytical Method:	<u>SW624.1</u>
Client:	<u>Environmental Restoration, LLC</u>	Datafile :	<u>VN087361.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN0718WBSD01	1,2-Dibromo-3-Chloropropane	20	19.7	ug/L	99	6		69	122	20
	1,2,4-Trichlorobenzene	20	21.3	ug/L	106	8		61	118	20
	1,2,3-Trichlorobenzene	20	21.3	ug/L	106	8		38	159	20

VOLATILE METHOD BLANK SUMMARY

Client ID

VN0718WBL01

Lab Name: Alliance

Contract: ENVI60

Lab Code: ACE

SDG NO.: Q2594

Lab File ID: VN087356.D

Lab Sample ID: VN0718WBL01

Date Analyzed: 07/18/2025

Time Analyzed: 11:04

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
VN0718WBS01	VN0718WBS01	VN087354.D	07/18/2025
VN0718WBSD01	VN0718WBSD01	VN087361.D	07/18/2025
CC-071325-RW	Q2594-01	VN087365.D	07/18/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance

Contract: ENVI60

Lab Code: ACE

SDG NO.: Q2594

Lab File ID: VN087161.D

BFB Injection Date: 06/25/2025

Instrument ID: MSVOA_N

BFB Injection Time: 08:25

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	19.4
75	30.0 - 60.0% of mass 95	50.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5 (0.7) 1
174	50.0 - 100.0% of mass 95	70.2
175	5.0 - 9.0% of mass 174	5.4 (7.7) 1
176	95.0 - 101.0% of mass 174	66.9 (95.3) 1
177	5.0 - 9.0% of mass 176	4.5 (6.8) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VN087162.D	06/25/2025	08:59
VSTDIC020	VSTDIC020	VN087163.D	06/25/2025	09:20
VSTDIC050	VSTDIC050	VN087164.D	06/25/2025	09:41
VSTDIC100	VSTDIC100	VN087165.D	06/25/2025	10:03
VSTDIC150	VSTDIC150	VN087166.D	06/25/2025	10:24

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance

Contract: ENVI60

Lab Code: ACE

SDG NO.: Q2594

Lab File ID: VN087352.D

BFB Injection Date: 07/18/2025

Instrument ID: MSVOA_N

BFB Injection Time: 08:42

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	19.1
75	30.0 - 60.0% of mass 95	53.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.7 (1) 1
174	50.0 - 100.0% of mass 95	74.1
175	5.0 - 9.0% of mass 174	5.1 (6.9) 1
176	95.0 - 101.0% of mass 174	70.9 (95.7) 1
177	5.0 - 9.0% of mass 176	4.6 (6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC020	VSTDCCC020	VN087353.D	07/18/2025	09:15
VN0718WBS01	VN0718WBS01	VN087354.D	07/18/2025	09:49
VN0718WBL01	VN0718WBL01	VN087356.D	07/18/2025	11:04
VN0718WBSD01	VN0718WBSD01	VN087361.D	07/18/2025	13:16
CC-071325-RW	Q2594-01	VN087365.D	07/18/2025	14:41

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: ENVI60
 Lab Code: ACE SDG NO.: Q2594
 Lab File ID: VN087353.D Date Analyzed: 07/18/2025
 Instrument ID: MSVOA_N Time Analyzed: 09:15
 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	46358	7.80	246415	9.08	220107	11.85
UPPER LIMIT	92716	8.3	492830	9.583	440214	12.347
LOWER LIMIT	23179	7.3	123208	8.583	110054	11.347
EPA SAMPLE NO.						
CC-071325-RW	45269	7.80	203093	9.08	184441	11.85
VN0718WBL01	41937	7.79	219664	9.08	193250	11.85
VN0718WBS01	47522	7.80	244435	9.08	221298	11.85
VN0718WBSD01	42433	7.80	214950	9.08	202696	11.85

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:	Environmental Restoration, LLC		Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	
Client Sample ID:	VN0718WBL01		SDG No.:	Q2594
Lab Sample ID:	VN0718WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087356.D	1	07/18/25 11:04	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.77	U	0.77	5.00	ug/L
74-87-3	Chloromethane	0.64	U	0.64	5.00	ug/L
75-01-4	Vinyl Chloride	0.83	U	0.83	5.00	ug/L
74-83-9	Bromomethane	0.80	U	0.80	5.00	ug/L
75-00-3	Chloroethane	2.30	U	2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	0.80	U	0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.96	U	0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.76	U	0.76	5.00	ug/L
67-64-1	Acetone	4.60	U	4.60	25.0	ug/L
75-15-0	Carbon Disulfide	0.82	U	0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.77	U	0.77	5.00	ug/L
79-20-9	Methyl Acetate	0.91	U	0.91	5.00	ug/L
75-09-2	Methylene Chloride	0.86	U	0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.82	U	0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.68	U	0.68	5.00	ug/L
110-82-7	Cyclohexane	0.92	U	0.92	5.00	ug/L
78-93-3	2-Butanone	2.00	U	2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.74	U	0.74	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.80	U	0.80	5.00	ug/L
67-66-3	Chloroform	0.55	U	0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.63	U	0.63	5.00	ug/L
108-87-2	Methylcyclohexane	0.73	U	0.73	5.00	ug/L
71-43-2	Benzene	0.45	U	0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.50	5.00	ug/L
79-01-6	Trichloroethene	0.49	U	0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	5.00	ug/L
75-27-4	Bromodichloromethane	0.64	U	0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	3.00	U	3.00	25.0	ug/L
108-88-3	Toluene	0.46	U	0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.72	U	0.72	5.00	ug/L

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	
Client Sample ID:	VN0718WBL01		SDG No.:	Q2594
Lab Sample ID:	VN0718WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087356.D	1	07/18/25 11:04	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.67	U	0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.45	U	0.45	5.00	ug/L
591-78-6	2-Hexanone	3.20	U	3.20	25.0	ug/L
124-48-1	Dibromochloromethane	0.66	U	0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	0.56	5.00	ug/L
127-18-4	Tetrachloroethene	0.84	U	0.84	5.00	ug/L
108-90-7	Chlorobenzene	0.47	U	0.47	5.00	ug/L
100-41-4	Ethyl Benzene	0.56	U	0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	1.30	U	1.30	10.0	ug/L
95-47-6	o-Xylene	0.67	U	0.67	5.00	ug/L
100-42-5	Styrene	0.72	U	0.72	5.00	ug/L
75-25-2	Bromoform	0.94	U	0.94	5.00	ug/L
98-82-8	Isopropylbenzene	0.78	U	0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.44	U	0.44	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.59	U	0.59	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.81	U	0.81	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.86	U	0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	32.8		91 - 110	109%	SPK: 30
2037-26-5	Toluene-d8	29.8		91 - 112	99%	SPK: 30
460-00-4	4-Bromofluorobenzene	28.8		63 - 112	96%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	41900	7.794			
540-36-3	1,4-Difluorobenzene	220000	9.083			
3114-55-4	Chlorobenzene-d5	193000	11.847			

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	
Client Sample ID:	VN0718WBL01		SDG No.:	Q2594
Lab Sample ID:	VN0718WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087356.D	1	07/18/25 11:04	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	
Client Sample ID:	VN0718WBS01		SDG No.:	Q2594
Lab Sample ID:	VN0718WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087354.D	1	07/18/25 09:49	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	16.1		0.77	5.00	ug/L
74-87-3	Chloromethane	17.9		0.64	5.00	ug/L
75-01-4	Vinyl Chloride	17.6		0.83	5.00	ug/L
74-83-9	Bromomethane	18.6		0.80	5.00	ug/L
75-00-3	Chloroethane	20.6		2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	21.6		0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	15.9		0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	15.3		0.76	5.00	ug/L
67-64-1	Acetone	81.8		4.60	25.0	ug/L
75-15-0	Carbon Disulfide	14.3		0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	19.6		0.77	5.00	ug/L
79-20-9	Methyl Acetate	20.9		0.91	5.00	ug/L
75-09-2	Methylene Chloride	18.5		0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	15.9		0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	18.0		0.68	5.00	ug/L
110-82-7	Cyclohexane	16.5		0.92	5.00	ug/L
78-93-3	2-Butanone	110		2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	21.3		0.74	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.0		0.80	5.00	ug/L
67-66-3	Chloroform	19.6		0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	21.3		0.63	5.00	ug/L
108-87-2	Methylcyclohexane	18.8		0.73	5.00	ug/L
71-43-2	Benzene	19.1		0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	22.8		0.50	5.00	ug/L
79-01-6	Trichloroethene	19.5		0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	20.4		0.46	5.00	ug/L
75-27-4	Bromodichloromethane	21.8		0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	120		3.00	25.0	ug/L
108-88-3	Toluene	19.5		0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	21.1		0.72	5.00	ug/L

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	
Client Sample ID:	VN0718WBS01		SDG No.:	Q2594
Lab Sample ID:	VN0718WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087354.D	1	07/18/25 09:49	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	20.0		0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.4		0.45	5.00	ug/L
591-78-6	2-Hexanone	130		3.20	25.0	ug/L
124-48-1	Dibromochloromethane	21.7		0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	20.2		0.56	5.00	ug/L
127-18-4	Tetrachloroethene	19.9		0.84	5.00	ug/L
108-90-7	Chlorobenzene	19.7		0.47	5.00	ug/L
100-41-4	Ethyl Benzene	19.6		0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	39.7		1.30	10.0	ug/L
95-47-6	o-Xylene	20.5		0.67	5.00	ug/L
100-42-5	Styrene	19.2		0.72	5.00	ug/L
75-25-2	Bromoform	20.8		0.94	5.00	ug/L
98-82-8	Isopropylbenzene	20.6		0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.7		0.44	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	21.4		0.59	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	20.6		0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	21.5		0.81	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	21.3		0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	21.0		0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	23.0		1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	23.0		1.10	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	31.3		91 - 110	104%	SPK: 30
2037-26-5	Toluene-d8	30.0		91 - 112	100%	SPK: 30
460-00-4	4-Bromofluorobenzene	31.4		63 - 112	105%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	47500	7.8			
540-36-3	1,4-Difluorobenzene	244000	9.083			
3114-55-4	Chlorobenzene-d5	221000	11.847			

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	
Client Sample ID:	VN0718WBS01		SDG No.:	Q2594
Lab Sample ID:	VN0718WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087354.D	1	07/18/25 09:49	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	
Client Sample ID:	VN0718WBSD01		SDG No.:	Q2594
Lab Sample ID:	VN0718WBSD01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087361.D	1	07/18/25 13:16	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	14.0		0.77	5.00	ug/L
74-87-3	Chloromethane	16.1		0.64	5.00	ug/L
75-01-4	Vinyl Chloride	15.8		0.83	5.00	ug/L
74-83-9	Bromomethane	12.2		0.80	5.00	ug/L
75-00-3	Chloroethane	20.1		2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	20.0		0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	14.9		0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	14.5		0.76	5.00	ug/L
67-64-1	Acetone	89.4		4.60	25.0	ug/L
75-15-0	Carbon Disulfide	13.6		0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	18.4		0.77	5.00	ug/L
79-20-9	Methyl Acetate	20.5		0.91	5.00	ug/L
75-09-2	Methylene Chloride	17.4		0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	15.4		0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	17.7		0.68	5.00	ug/L
110-82-7	Cyclohexane	14.6		0.92	5.00	ug/L
78-93-3	2-Butanone	110		2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	20.5		0.74	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	16.8		0.80	5.00	ug/L
67-66-3	Chloroform	19.0		0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	20.4		0.63	5.00	ug/L
108-87-2	Methylcyclohexane	16.5		0.73	5.00	ug/L
71-43-2	Benzene	18.8		0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	22.5		0.50	5.00	ug/L
79-01-6	Trichloroethene	18.3		0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	19.4		0.46	5.00	ug/L
75-27-4	Bromodichloromethane	21.6		0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	120		3.00	25.0	ug/L
108-88-3	Toluene	18.7		0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	20.0		0.72	5.00	ug/L

Report of Analysis

Client:	Environmental Restoration, LLC		Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS		Date Received:	
Client Sample ID:	VN0718WBSD01		SDG No.:	Q2594
Lab Sample ID:	VN0718WBSD01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087361.D	1	07/18/25 13:16	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	19.7		0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	19.8		0.45	5.00	ug/L
591-78-6	2-Hexanone	120		3.20	25.0	ug/L
124-48-1	Dibromochloromethane	21.8		0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	19.6		0.56	5.00	ug/L
127-18-4	Tetrachloroethene	18.7		0.84	5.00	ug/L
108-90-7	Chlorobenzene	18.9		0.47	5.00	ug/L
100-41-4	Ethyl Benzene	18.2		0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	37.0		1.30	10.0	ug/L
95-47-6	o-Xylene	18.6		0.67	5.00	ug/L
100-42-5	Styrene	18.8		0.72	5.00	ug/L
75-25-2	Bromoform	20.4		0.94	5.00	ug/L
98-82-8	Isopropylbenzene	19.0		0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.0		0.44	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	19.9		0.59	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	20.3		0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.8		0.81	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	20.2		0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	19.7		0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	21.3		1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	21.3		1.10	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	32.4		91 - 110	108%	SPK: 30
2037-26-5	Toluene-d8	30.2		91 - 112	101%	SPK: 30
460-00-4	4-Bromofluorobenzene	31.9		63 - 112	106%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	42400	7.8			
540-36-3	1,4-Difluorobenzene	215000	9.083			
3114-55-4	Chlorobenzene-d5	203000	11.847			

Report of Analysis

Client:	Environmental Restoration, LLC			Date Collected:	
Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS			Date Received:	
Client Sample ID:	VN0718WBSD01			SDG No.:	Q2594
Lab Sample ID:	VN0718WBSD01			Matrix:	Water
Analytical Method:	E624.1			% Solid:	0
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000 uL
Soil Aliquot Vol:			uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID :	0.25	Level :	LOW
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087361.D	1	07/18/25 13:16	VN071825

CAS Number	Parameter	Conc.	Qualifier	MDL	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



CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: ENVI60
 Lab Code: ACE SDG No.: Q2594
 Instrument ID: MSVOA_N Calibration Date(s): 06/25/2025 06/25/2025
 Heated Purge: (Y/N) N Calibration Time(s): 08:59 10:24
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VN087162.D		RRF020 = VN087163.D		RRF050 = VN087164.D		RRF100 = VN087165.D		RRF150 = VN087166.D		RRF =			
COMPOUND		RRF005	RRF020	RRF050	RRF100	RRF150	RRF								% RSD
Dichlorodifluoromethane		1.971	1.652	1.736	1.761	1.909		1.806		7.2					
Chloromethane		2.014	1.562	1.799	1.846	2.001		1.845		10					
Vinyl Chloride		2.146	1.799	1.922	1.946	2.209		2.005		8.4					
Bromomethane		1.205	0.965	0.990	1.020	1.139		1.064		9.7					
Chloroethane		1.140	0.966	1.040	1.070	1.161		1.075		7.3					
Trichlorofluoromethane		2.644	2.322	2.382	2.400	2.546		2.459		5.4					
1,1,2-Trichlorotrifluoroethane		1.941	1.681	1.788	1.785	1.920		1.823		5.9					
1,1-Dichloroethene		1.930	1.676	1.779	1.772	1.929		1.817		6.1					
Acetone		0.423	0.367	0.386	0.373	0.390		0.388		5.7					
Carbon Disulfide		6.114	4.847	5.126	5.051	5.429		5.313		9.3					
Methyl tert-Butyl Ether		6.446	5.734	6.377	6.408	6.903		6.374		6.5					
Methyl Acetate		2.817	2.616	2.857	2.889	3.074		2.851		5.7					
Methylene Chloride		2.339	1.947	2.062	2.025	2.153		2.105		7.1					
trans-1,2-Dichloroethene		2.191	1.821	1.955	1.916	2.054		1.987		7.1					
1,1-Dichloroethane		4.181	3.580	3.726	3.650	3.867		3.801		6.3					
Cyclohexane		0.547	0.504	0.605	0.568	0.611		0.567		7.8					
2-Butanone		0.292	0.286	0.342	0.316	0.341		0.315		8.4					
Carbon Tetrachloride		0.493	0.398	0.480	0.447	0.480		0.460		8.4					
cis-1,2-Dichloroethene		2.324	2.093	2.374	2.269	2.506		2.313		6.5					
Chloroform		3.901	3.326	3.659	3.568	3.753		3.641		5.9					
1,1,1-Trichloroethane		0.563	0.497	0.582	0.524	0.565		0.546		6.3					
Methylcyclohexane		0.545	0.472	0.533	0.551	0.582		0.537		7.5					
Benzene		1.576	1.309	1.574	1.454	1.494		1.481		7.4					
1,2-Dichloroethane		0.517	0.442	0.507	0.457	0.471		0.479		6.7					
Trichloroethene		0.371	0.294	0.352	0.336	0.355		0.342		8.5					
1,2-Dichloropropane		0.397	0.348	0.369	0.363	0.382		0.372		5.1					
Bromodichloromethane		0.537	0.482	0.522	0.485	0.525		0.510		4.9					
4-Methyl-2-Pentanone		0.557	0.547	0.645	0.630	0.637		0.603		7.8					
Toluene		1.839	1.550	1.720	1.643	1.720		1.694		6.3					
t-1,3-Dichloropropene		0.553	0.512	0.613	0.554	0.612		0.569		7.6					

* 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.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: ENVI60
 Lab Code: ACE SDG No.: Q2594
 Instrument ID: MSVOA_N Calibration Date(s): 06/25/2025 06/25/2025
 Heated Purge: (Y/N) N Calibration Time(s): 08:59 10:24
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:								
RRF005 = VN087162.D			RRF020 = VN087163.D			RRF050 = VN087164.D		
RRF100 = VN087165.D			RRF150 = VN087166.D			RRF =		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	RRF	% RSD
cis-1,3-Dichloropropene	0.616	0.568	0.606	0.585	0.649		0.605	5.1
1,1,2-Trichloroethane	0.388	0.333	0.376	0.332	0.366		0.359	7
2-Hexanone	0.305	0.322	0.440	0.428	0.452		0.389	18
Dibromochloromethane	0.373	0.343	0.401	0.363	0.405		0.377	7
1,2-Dibromoethane	0.381	0.344	0.382	0.358	0.389		0.371	5.1
Tetrachloroethene	0.334	0.268	0.301	0.281	0.301		0.297	8.4
Chlorobenzene	1.136	0.985	1.106	1.071	1.106		1.081	5.4
Ethyl Benzene	1.847	1.649	1.926	1.899	1.952		1.855	6.5
m/p-Xylenes	0.694	0.636	0.742	0.734	0.747		0.711	6.5
o-Xylene	0.650	0.604	0.709	0.706	0.720		0.678	7.3
Styrene	1.086	1.039	1.240	1.213	1.242		1.164	8.1
Bromoform	0.258	0.234	0.271	0.258	0.276		0.259	6.3
Isopropylbenzene	1.623	1.479	1.789	1.764	1.788		1.689	8
1,1,2,2-Tetrachloroethane	0.624	0.566	0.635	0.606	0.608		0.608	4.4
1,3,5-Trimethylbenzene	1.275	1.181	1.499	1.466	1.453		1.375	10.1
1,3-Dichlorobenzene	0.782	0.717	0.840	0.823	0.782		0.789	6.1
1,4-Dichlorobenzene	0.791	0.714	0.852	0.823	0.788		0.794	6.5
1,2-Dichlorobenzene	0.719	0.670	0.805	0.781	0.743		0.744	7.1
1,2-Dibromo-3-Chloropropane	0.130	0.122	0.143	0.142	0.147		0.137	7.6
1,2,4-Trichlorobenzene	0.399	0.379	0.416	0.449	0.460		0.421	8
1,2,3-Trichlorobenzene	0.399	0.379	0.416	0.449	0.460		0.421	8
1,2-Dichloroethane-d4	2.394	2.309	2.211	2.236	2.153		2.260	4.1
Toluene-d8	1.386	1.399	1.314	1.311	1.325		1.347	3.2
4-Bromofluorobenzene	0.439	0.448	0.470	0.489	0.468		0.463	4.3

* 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:	<u>Alliance</u>	Contract:	<u>ENVI60</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q2594</u>
Instrument ID:	<u>MSVOA_N</u>	Calibration Date/Time:	<u>07/18/2025 09:15</u>
Lab File ID:	<u>VN087353.D</u>	Init. Calib. Date(s):	<u>06/25/2025 06/25/2025</u>
Heated Purge: (Y/N)	<u>N</u>	Init. Calib. Time(s):	<u>08:59 10:24</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	1.806	1.438		-20.38	
Chloromethane	1.845	1.699		-7.91	
Vinyl Chloride	2.005	1.785	0.1	-10.97	
Bromomethane	1.064	1.047	0.1	-1.6	
Chloroethane	1.075	1.179		9.67	
Trichlorofluoromethane	2.459	2.669		8.54	
1,1,2-Trichlorotrifluoroethane	1.823	1.444		-20.79	
1,1-Dichloroethene	1.817	1.427	0.1	-21.46	
Acetone	0.388	0.348		-10.31	
Carbon Disulfide	5.313	3.940		-25.84	
Methyl tert-Butyl Ether	6.374	6.346		-0.44	
Methyl Acetate	2.851	3.019		5.89	
Methylene Chloride	2.105	2.029		-3.61	
trans-1,2-Dichloroethene	1.987	1.674		-15.75	
1,1-Dichloroethane	3.801	3.616	0.2	-4.87	
Cyclohexane	0.567	0.489		-13.76	
2-Butanone	0.315	0.330		4.76	
Carbon Tetrachloride	0.460	0.485	0.1	5.43	
cis-1,2-Dichloroethene	2.313	2.136		-7.65	
Chloroform	3.641	3.679	0.2	1.04	
1,1,1-Trichloroethane	0.546	0.575	0.1	5.31	
Methylcyclohexane	0.537	0.487		-9.31	
Benzene	1.481	1.442	0.5	-2.63	
1,2-Dichloroethane	0.479	0.539	0.1	12.53	
Trichloroethene	0.342	0.321	0.3	-6.14	
1,2-Dichloropropane	0.372	0.379		1.88	
Bromodichloromethane	0.510	0.558	0.2	9.41	
4-Methyl-2-Pentanone	0.603	0.712		18.08	
Toluene	1.694	1.691	0.4	-0.18	
t-1,3-Dichloropropene	0.569	0.589	0.1	3.52	
cis-1,3-Dichloropropene	0.605	0.615	0.2	1.65	
1,1,2-Trichloroethane	0.359	0.362	0.1	0.84	
2-Hexanone	0.389	0.490		25.96	
Dibromochloromethane	0.377	0.416	0.1	10.35	
1,2-Dibromoethane	0.371	0.367		-1.08	
Tetrachloroethene	0.297	0.308	0.2	3.7	
Chlorobenzene	1.081	1.094	0.5	1.2	
Ethyl Benzene	1.855	1.825	0.1	-1.62	

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:	<u>Alliance</u>	Contract:	<u>ENVI60</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q2594</u>
Instrument ID:	<u>MSVOA_N</u>	Calibration Date/Time:	<u>07/18/2025</u> <u>09:15</u>
Lab File ID:	<u>VN087353.D</u>	Init. Calib. Date(s):	<u>06/25/2025</u> <u>06/25/2025</u>
Heated Purge: (Y/N)	<u>N</u>	Init. Calib. Time(s):	<u>08:59</u> <u>10:24</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
m/p-Xylenes	0.711	0.711	0.3	0	
o-Xylene	0.678	0.690	0.3	1.77	
Styrene	1.164	1.161	0.3	-0.26	
Bromoform	0.259	0.273	0.1	5.41	
Isopropylbenzene	1.689	1.760		4.2	
1,1,2,2-Tetrachloroethane	0.608	0.622	0.3	2.3	
1,3,5-Trimethylbenzene	1.375	1.466		6.62	
1,3-Dichlorobenzene	0.789	0.844	0.2	6.97	
1,4-Dichlorobenzene	0.794	0.801	0.2	0.88	
1,2-Dichlorobenzene	0.744	0.797	0.2	7.12	
1,2-Dibromo-3-Chloropropane	0.137	0.136		-0.73	
1,2,4-Trichlorobenzene	0.421	0.465	0.2	10.45	
1,2,3-Trichlorobenzene	0.421	0.465		10.45	
1,2-Dichloroethane-d4	2.260	2.451	0.01	8.45	
Toluene-d8	1.347	1.348	0.01	0.07	
4-Bromofluorobenzene	0.463	0.486	0.2	4.97	

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



SAMPLE RAW DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
 Data File : VN087365.D
 Acq On : 18 Jul 2025 14:41
 Operator : JC\MD
 Sample : Q2594-01 5X
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 CC-071325-RW

A
B
C
D
E
F
G
H
I
J

Quant Time: Jul 18 23:20:52 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Jun 25 10:49:56 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	7.800	128	45269	30.000	ug/l	-0.02
28) 1,4-Difluorobenzene	9.082	114	203093	30.000	ug/l	-0.02
57) Chlorobenzene-d5	11.847	117	184441	30.000	ug/l	-0.02

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.565	65	101794	29.845	ug/l	-0.02
Spiked Amount	30.000	Range	91 - 110	Recovery	=	99.467%
60) 4-Bromofluorobenzene	12.829	95	79048	27.774	ug/l	-0.02
Spiked Amount	30.000	Range	63 - 112	Recovery	=	92.567%
63) Toluene-d8	10.547	98	241972	29.219	ug/l	-0.02
Spiked Amount	30.000	Range	91 - 112	Recovery	=	97.400%

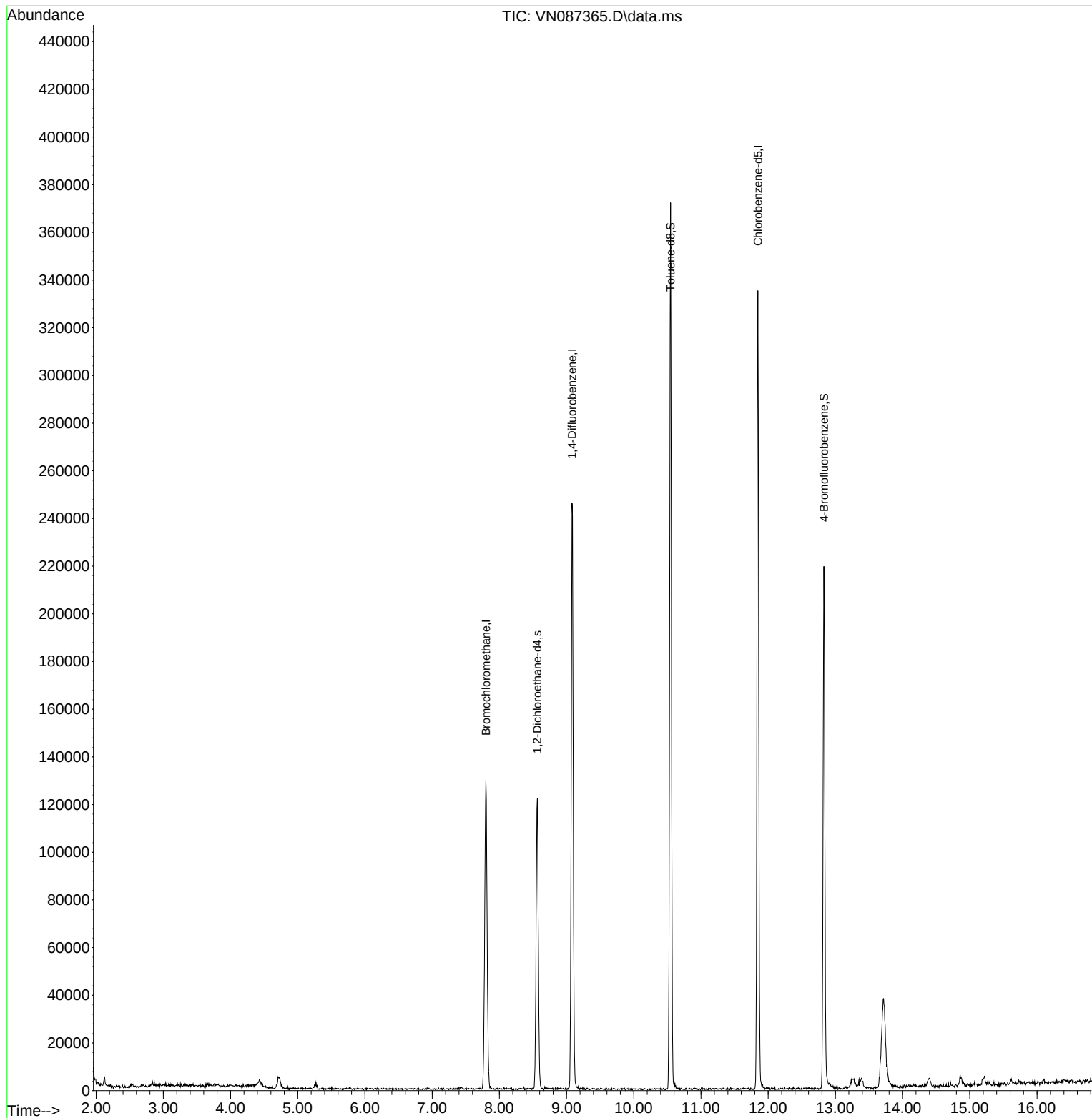
Target Compounds	Qvalue

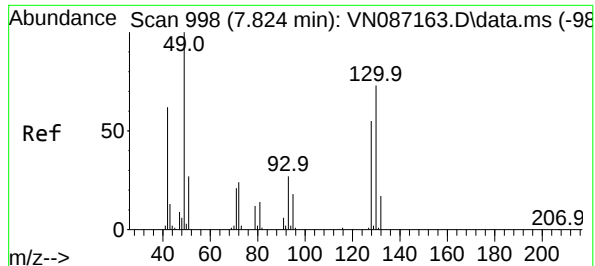
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087365.D
Acq On : 18 Jul 2025 14:41
Operator : JC\MD
Sample : Q2594-01 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
CC-071325-RW

Quant Time: Jul 18 23:20:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Jun 25 10:49:56 2025
Response via : Initial Calibration

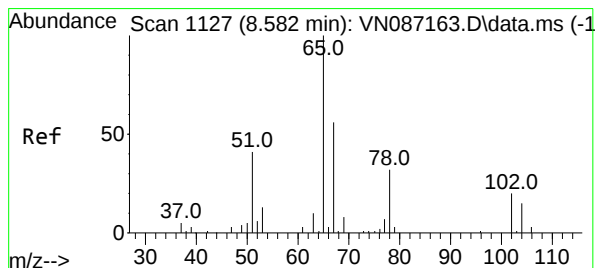
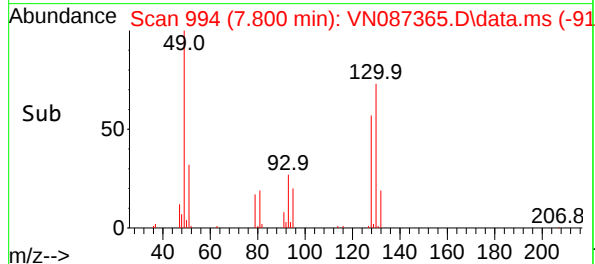
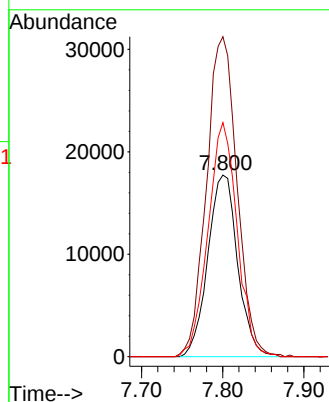
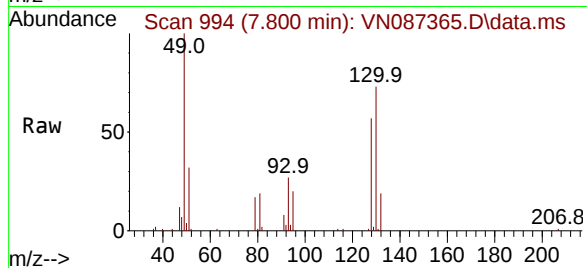




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.800 min Scan# 91
Delta R.T. -0.024 min
Lab File: VN087365.D
Acq: 18 Jul 2025 14:41

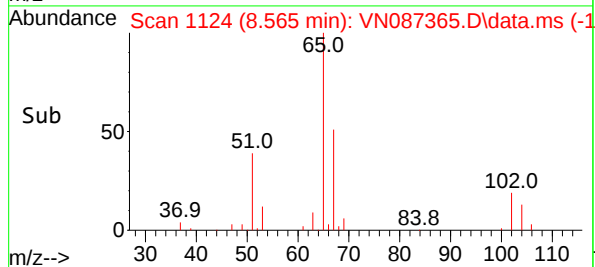
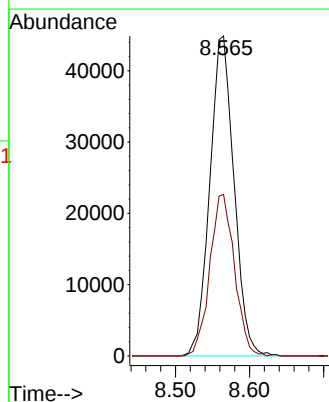
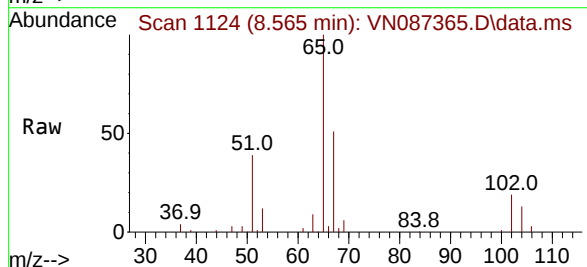
Instrument :
MSVOA_N
ClientSampleId :
CC-071325-RW

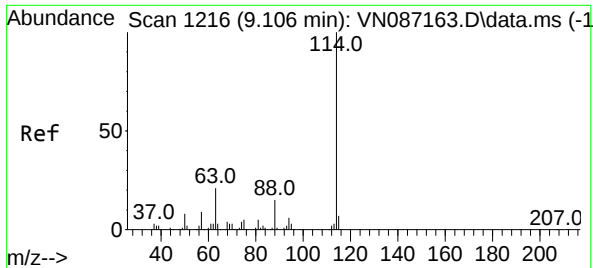
Tgt Ion	Ratio	Lower	Upper
128	100		
49	180.3	0.0	450.5
130	126.1	0.0	320.7



#27
1,2-Dichloroethane-d4
Concen: 29.845 ug/l
RT: 8.565 min Scan# 1124
Delta R.T. -0.018 min
Lab File: VN087365.D
Acq: 18 Jul 2025 14:41

Tgt Ion	Ratio	Lower	Upper
65	100		
67	51.4	41.9	62.9





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.082 min Scan# 1

Delta R.T. -0.024 min

Lab File: VN087365.D

Acq: 18 Jul 2025 14:41

Instrument :

MSVOA_N

ClientSampleId :

CC-071325-RW

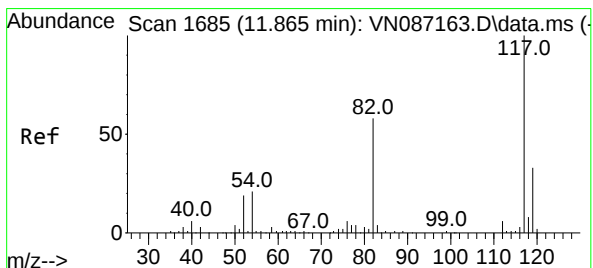
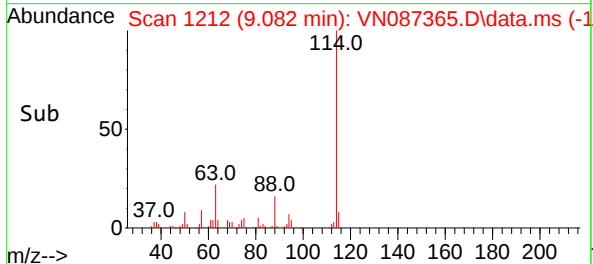
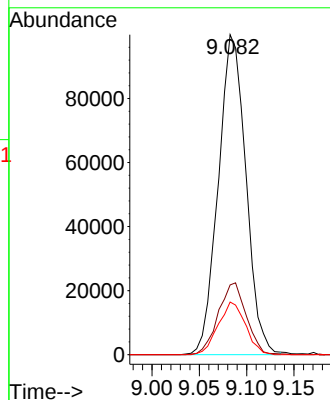
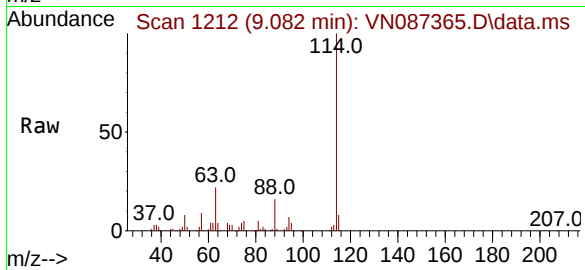
Tgt Ion:114 Resp: 203093

Ion Ratio Lower Upper

114 100

63 22.8 17.0 25.4

88 16.2 12.6 19.0



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.847 min Scan# 1682

Delta R.T. -0.018 min

Lab File: VN087365.D

Acq: 18 Jul 2025 14:41

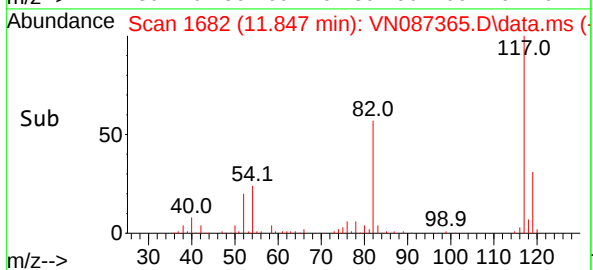
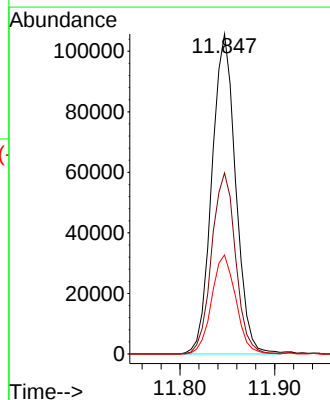
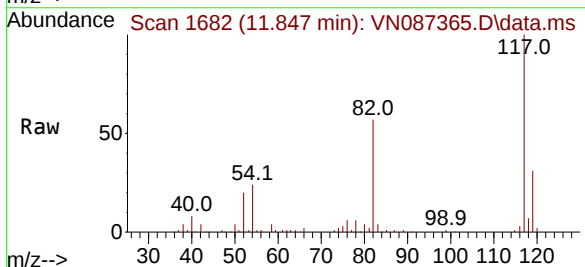
Tgt Ion:117 Resp: 184441

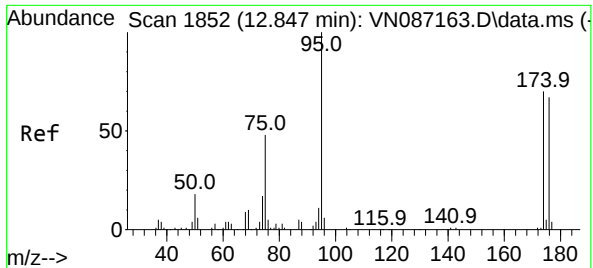
Ion Ratio Lower Upper

117 100

82 56.9 45.4 68.2

119 31.3 26.2 39.4

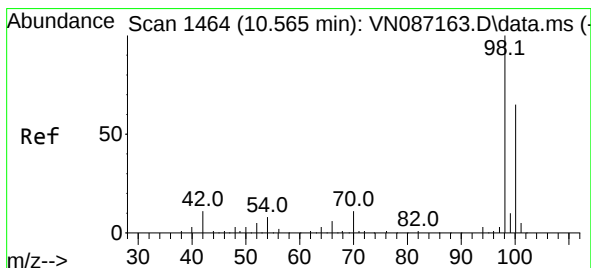
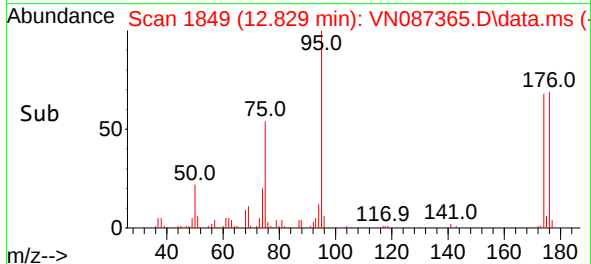
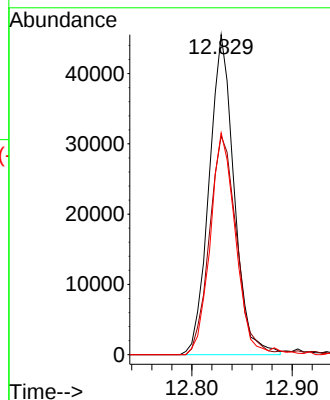
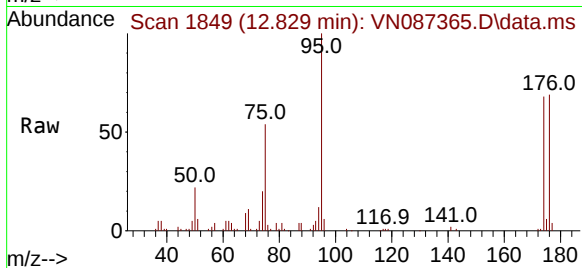




#60
4-Bromofluorobenzene
Concen: 27.774 ug/l
RT: 12.829 min Scan# 11
Delta R.T. -0.018 min
Lab File: VN087365.D
Acq: 18 Jul 2025 14:41

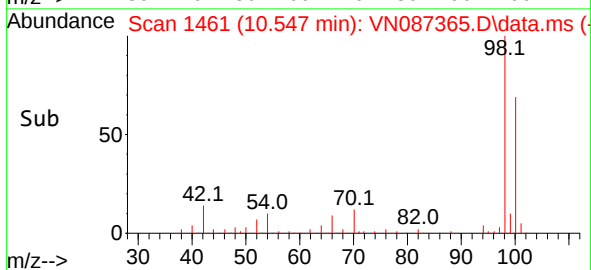
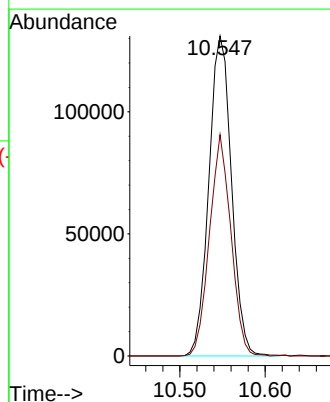
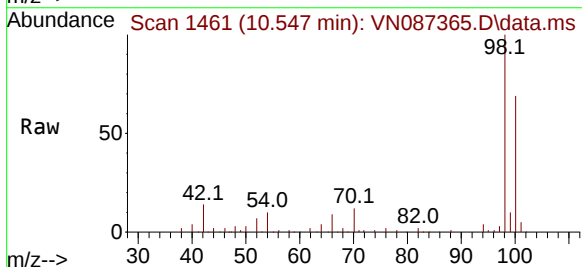
Instrument :
MSVOA_N
ClientSampleId :
CC-071325-RW

Tgt Ion: 95 Resp: 79048
Ion Ratio Lower Upper
95 100
174 73.7 54.5 81.7
176 69.3 51.9 77.9



#63
Toluene-d8
Concen: 29.219 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.018 min
Lab File: VN087365.D
Acq: 18 Jul 2025 14:41

Tgt Ion: 98 Resp: 241972
Ion Ratio Lower Upper
98 100
100 65.4 52.5 78.7



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087365.D
Acq On : 18 Jul 2025 14:41
Operator : JC\MD
Sample : Q2594-01 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
CC-071325-RW

A
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Integration Parameters: RTEINT3.P

Integrator: RTE

Smoothing : OFF

Filtering: 5

Sampling : 1

Min Area: 0 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M

Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

Signal : TIC: VN087365.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.706	460	468	476	rBV4	4902	15413	2.33%	0.523%
2	7.800	983	994	1004	rBV	129623	326542	49.33%	11.084%
3	8.565	1114	1124	1136	rBV	121995	274670	41.50%	9.323%
4	9.082	1204	1212	1224	rBV	245090	501400	75.75%	17.019%
5	10.547	1453	1461	1469	rBV	371878	661918	100.00%	22.468%
6	11.847	1673	1682	1692	rBV	335052	593808	89.71%	20.156%
7	12.829	1841	1849	1861	rBV	219014	392098	59.24%	13.309%
8	13.717	1985	2000	2013	rBV3	37290	162220	24.51%	5.506%
9	14.400	2108	2116	2124	rVB5	3532	10890	1.65%	0.370%
10	14.859	2186	2194	2195	rBV5	4660	7151	1.08%	0.243%

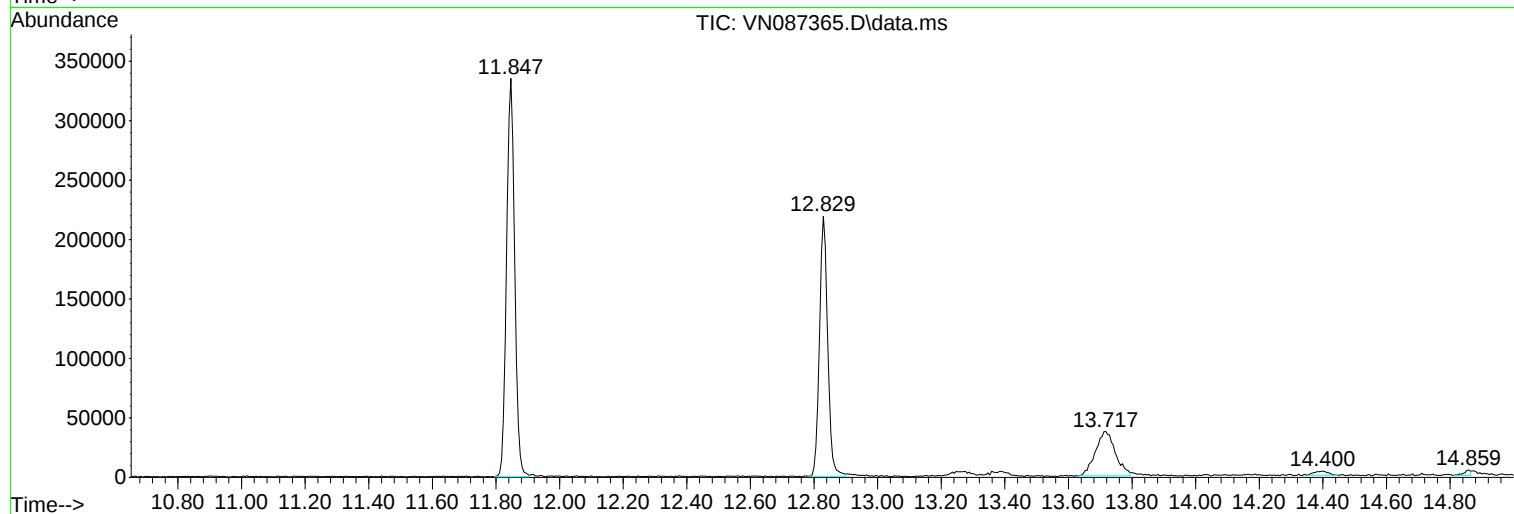
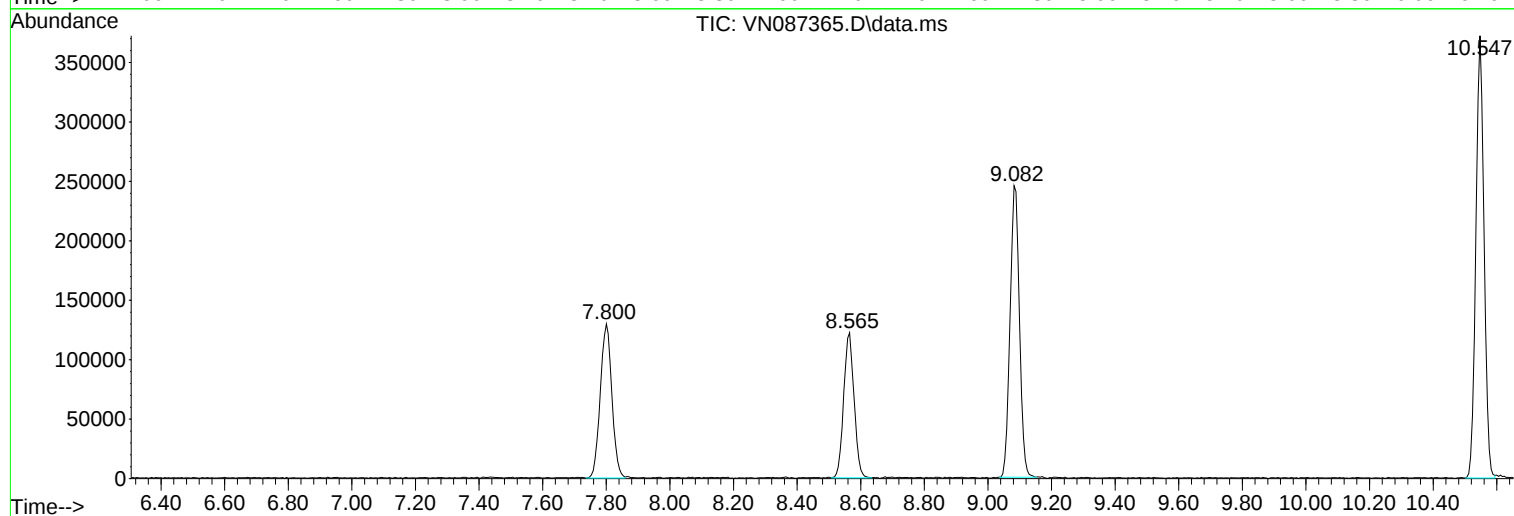
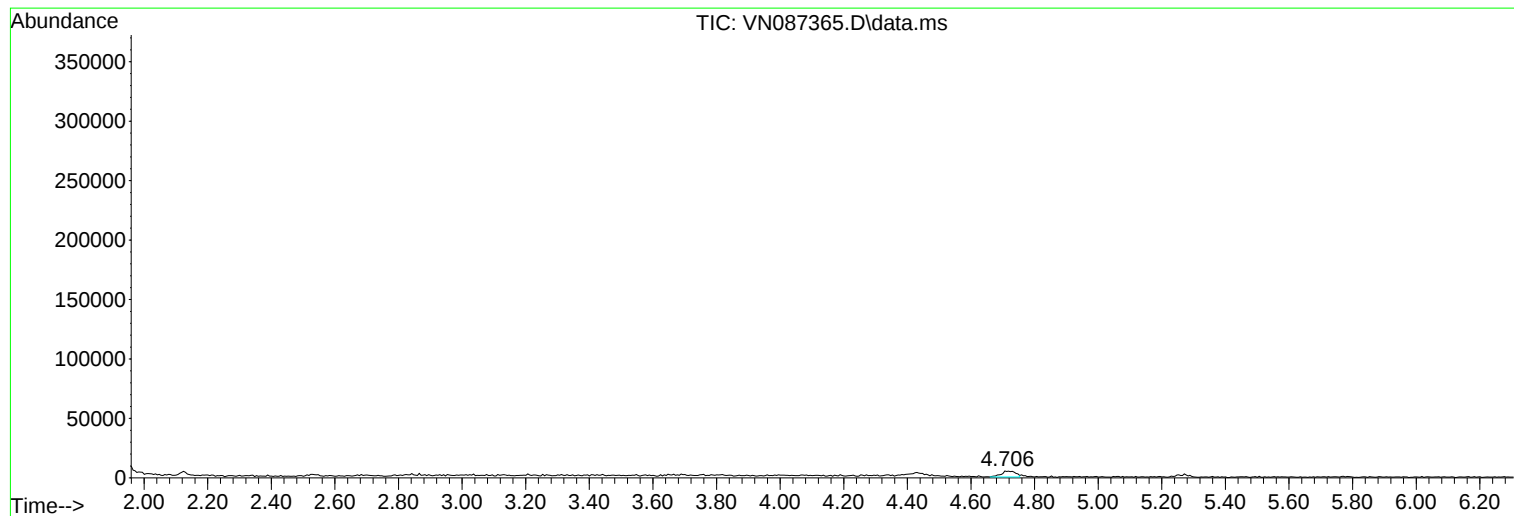
Sum of corrected areas: 2946110

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087365.D
Acq On : 18 Jul 2025 14:41
Operator : JC\MD
Sample : Q2594-01 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
CC-071325-RW

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087365.D
Acq On : 18 Jul 2025 14:41
Operator : JC\MD
Sample : Q2594-01 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
CC-071325-RW

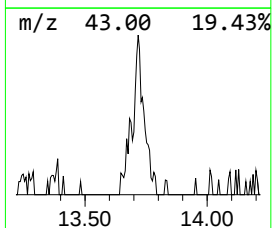
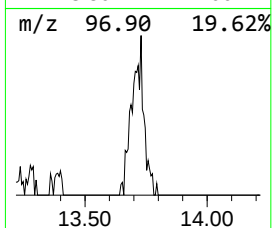
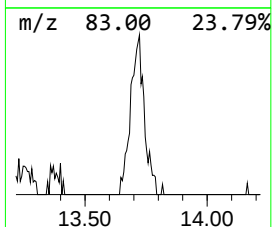
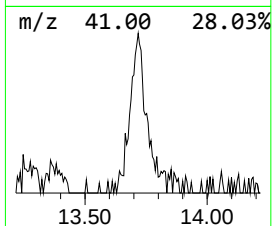
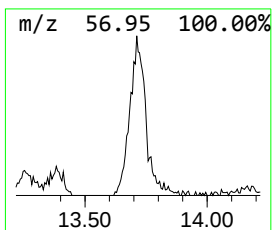
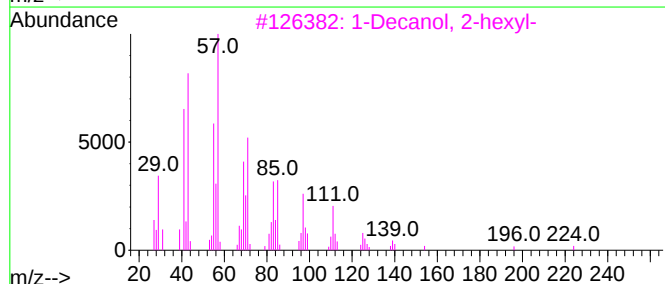
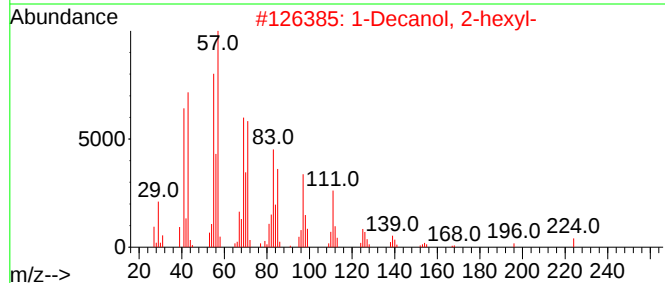
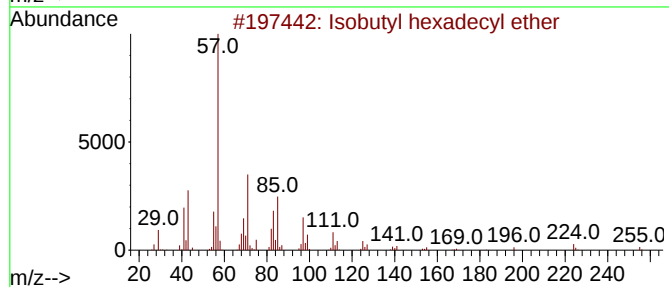
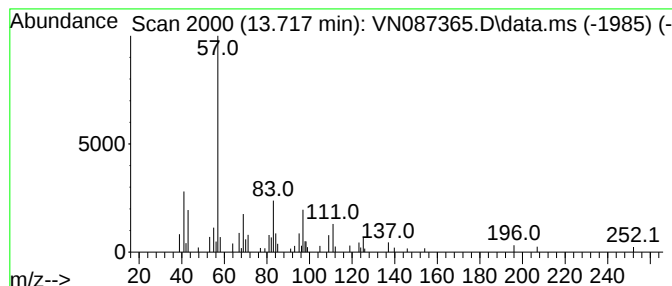
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 1 Isobutyl hexadecyl ether Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.717	8.20 ug/l	162220	Chlorobenzene-d5	11.847

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Isobutyl hexadecyl ether	298	C20H42O	1000406-32-8	50
2			1-Decanol, 2-hexyl-	242	C16H34O	002425-77-6	50
3			1-Decanol, 2-hexyl-	242	C16H34O	002425-77-6	50
4			Isobutyl tetradecyl ether	270	C18H38O	1000406-32-7	50
5			Butyl tetradecyl ether	270	C18H38O	1000406-40-4	40



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087365.D
Acq On : 18 Jul 2025 14:41
Operator : JC\MD
Sample : Q2594-01 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
CC-071325-RW

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Isobutyl hexade...	13.717	8.2	ug/l	162220	3	11.847	593808	30.0

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087356.D
Acq On : 18 Jul 2025 11:04
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

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Quant Time: Jul 18 23:17:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Jun 25 10:49:56 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	7.794	128	41937	30.000	ug/l	-0.03
28) 1,4-Difluorobenzene	9.083	114	219664	30.000	ug/l	-0.02
57) Chlorobenzene-d5	11.847	117	193250	30.000	ug/l	-0.02

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.565	65	103673	32.810	ug/l	-0.02
Spiked Amount	30.000	Range	91 - 110	Recovery	=	109.367%
60) 4-Bromofluorobenzene	12.829	95	85866	28.794	ug/l	-0.02
Spiked Amount	30.000	Range	63 - 112	Recovery	=	95.967%
63) Toluene-d8	10.547	98	258214	29.759	ug/l	-0.02
Spiked Amount	30.000	Range	91 - 112	Recovery	=	99.200%

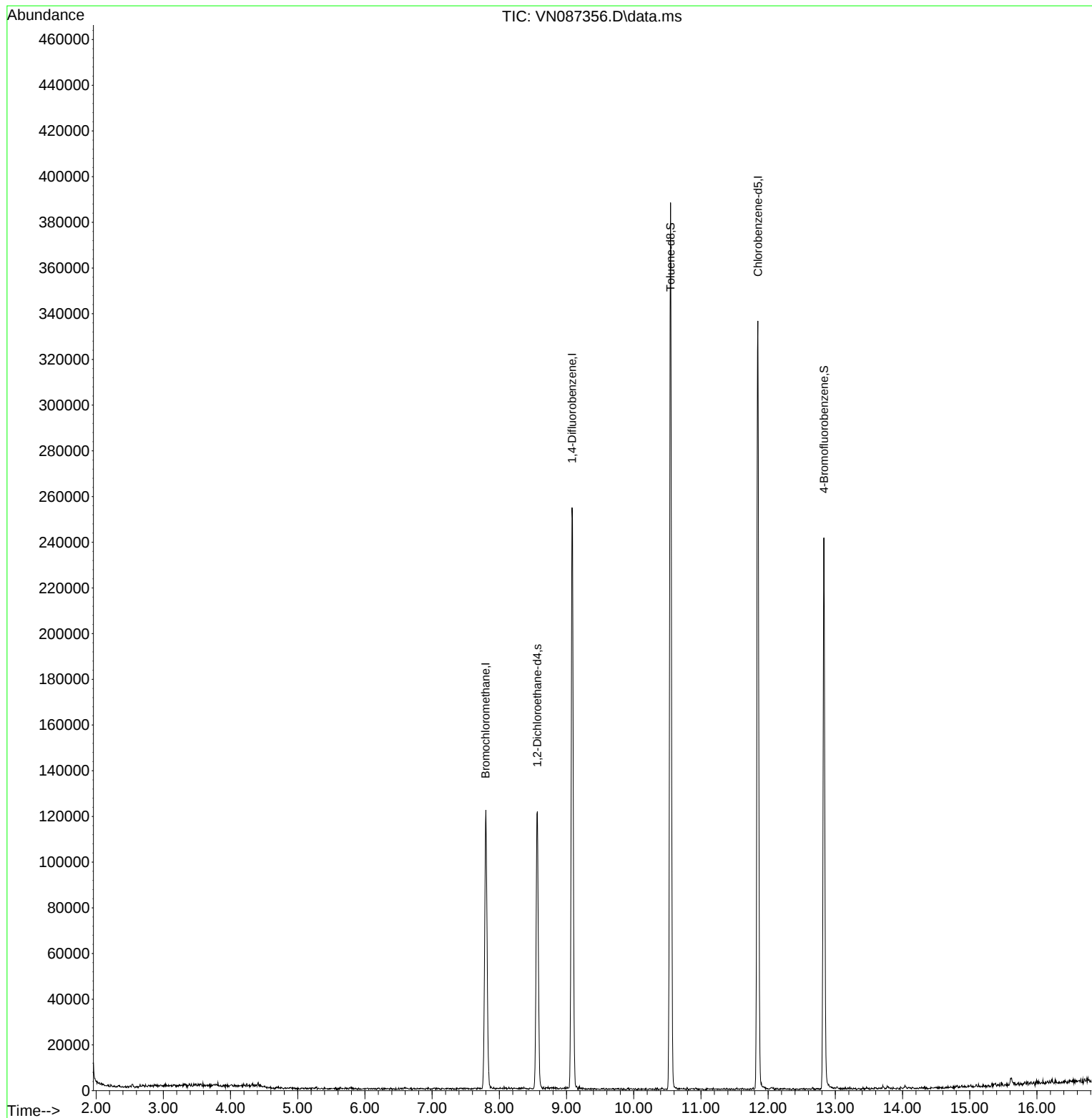
Target Compounds	Qvalue

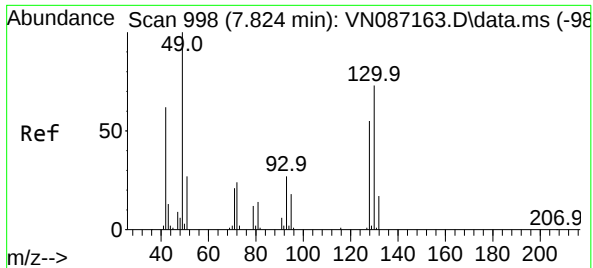
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087356.D
Acq On : 18 Jul 2025 11:04
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Quant Time: Jul 18 23:17:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Jun 25 10:49:56 2025
Response via : Initial Calibration

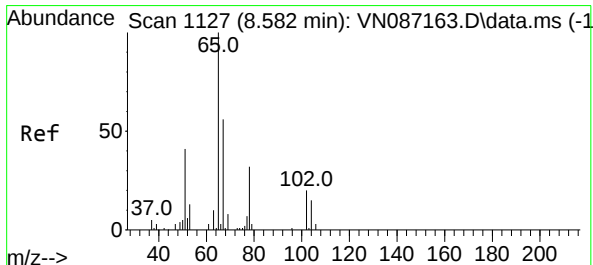
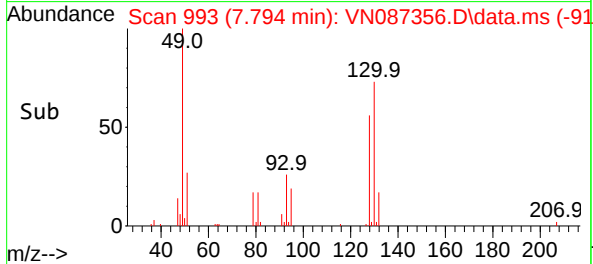
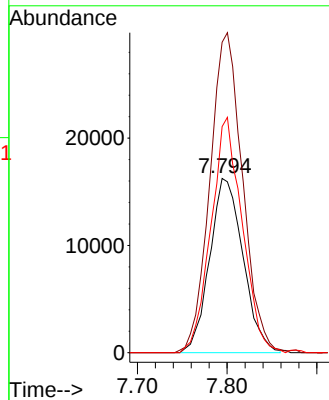
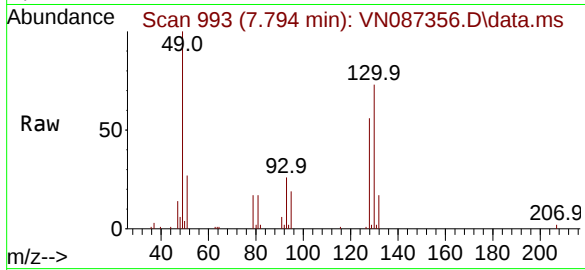




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.794 min Scan# 998
Delta R.T. -0.030 min
Lab File: VN087356.D
Acq: 18 Jul 2025 11:04

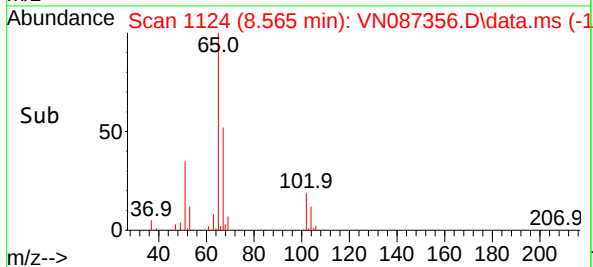
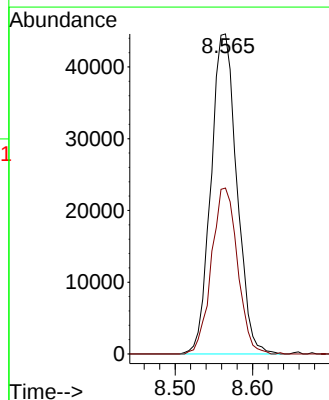
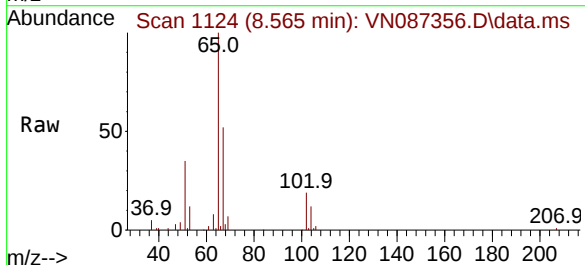
Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

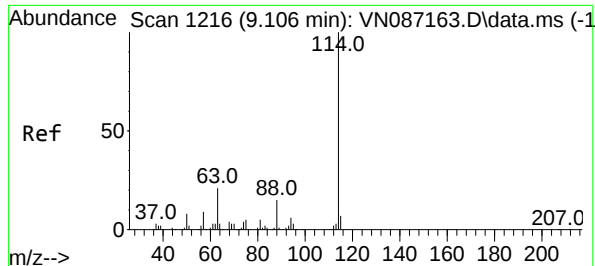
Tgt Ion	Ratio	Lower	Upper
128	100		
49	179.4	0.0	450.5
130	126.5	0.0	320.7



#27
1,2-Dichloroethane-d4
Concen: 32.810 ug/l
RT: 8.565 min Scan# 1124
Delta R.T. -0.018 min
Lab File: VN087356.D
Acq: 18 Jul 2025 11:04

Tgt Ion	Ratio	Lower	Upper
65	100		
67	52.1	41.9	62.9





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.083 min Scan# 11

Delta R.T. -0.023 min

Lab File: VN087356.D

Acq: 18 Jul 2025 11:04

Instrument :

MSVOA_N

ClientSampleId :

VN0718WBL01

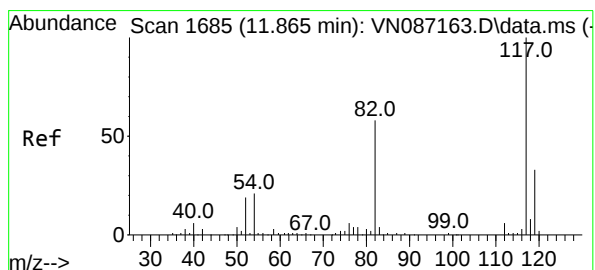
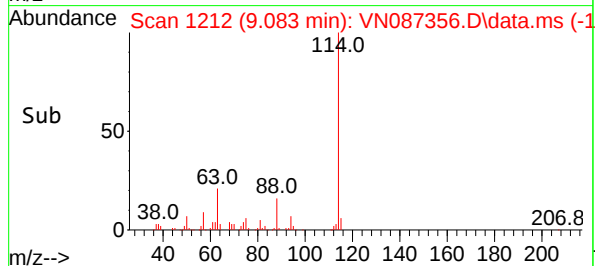
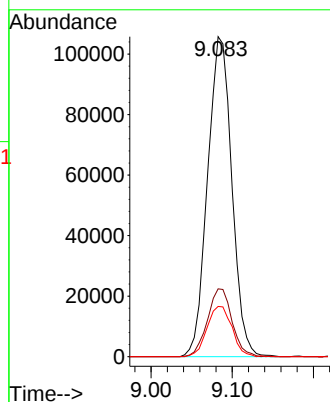
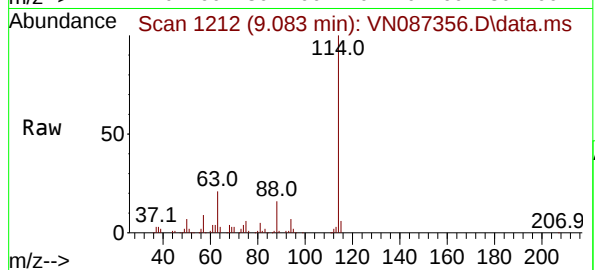
Tgt Ion:114 Resp: 219664

Ion Ratio Lower Upper

114 100

63 21.4 17.0 25.4

88 16.1 12.6 19.0



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.847 min Scan# 1682

Delta R.T. -0.018 min

Lab File: VN087356.D

Acq: 18 Jul 2025 11:04

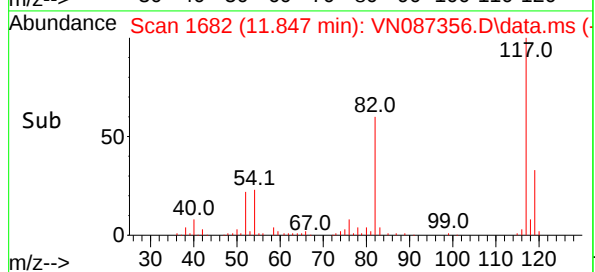
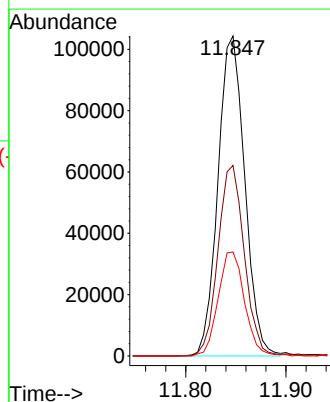
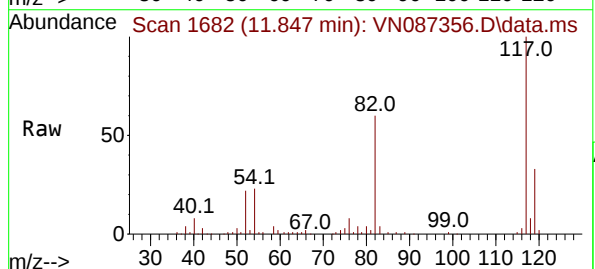
Tgt Ion:117 Resp: 193250

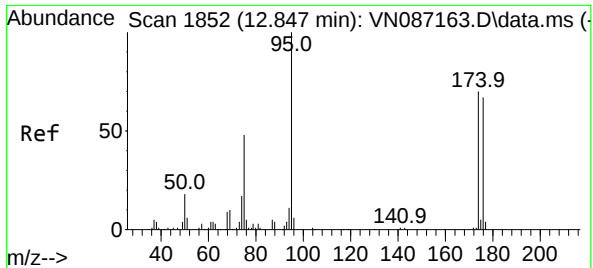
Ion Ratio Lower Upper

117 100

82 58.4 45.4 68.2

119 31.8 26.2 39.4

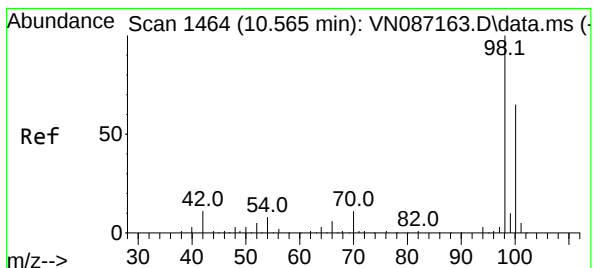
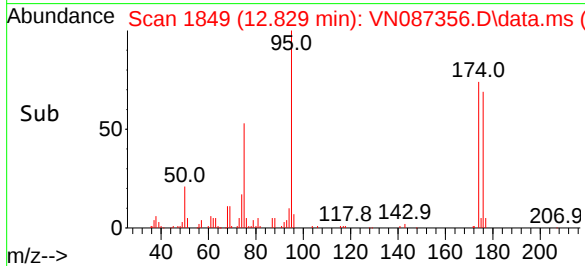
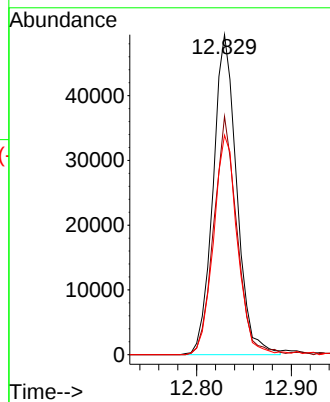
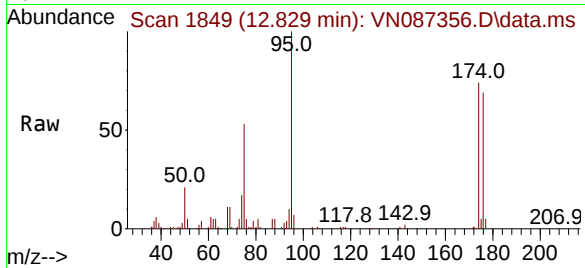




#60
4-Bromofluorobenzene
Concen: 28.794 ug/l
RT: 12.829 min Scan# 11
Delta R.T. -0.018 min
Lab File: VN087356.D
Acq: 18 Jul 2025 11:04

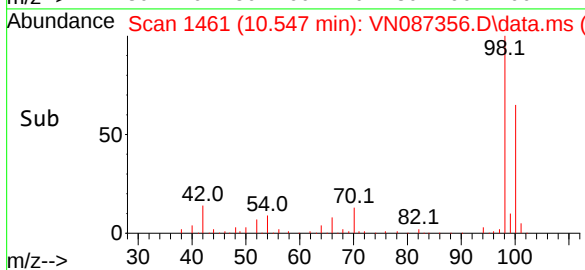
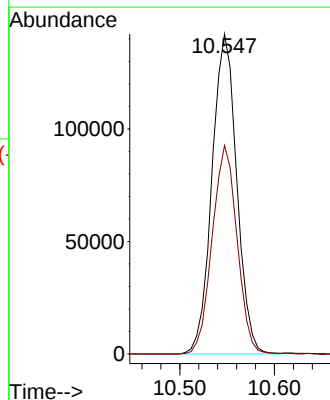
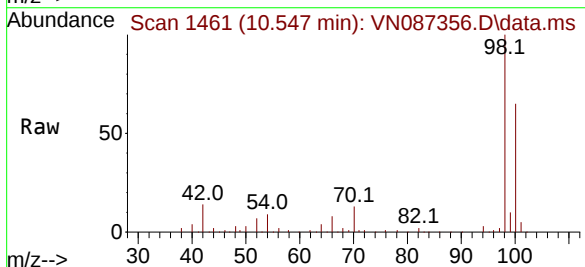
Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Tgt Ion: 95 Resp: 85866
Ion Ratio Lower Upper
95 100
174 72.9 54.5 81.7
176 69.1 51.9 77.9



#63
Toluene-d8
Concen: 29.759 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.018 min
Lab File: VN087356.D
Acq: 18 Jul 2025 11:04

Tgt Ion: 98 Resp: 258214
Ion Ratio Lower Upper
98 100
100 65.4 52.5 78.7



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087356.D
Acq On : 18 Jul 2025 11:04
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Integration Parameters: RTEINT3.P

Integrator: RTE

Smoothing : OFF

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 0 % of largest Peak

Max Peaks: 100

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M

Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

Signal : TIC: VN087356.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.800	984	994	1005	rBV	122020	304404	43.01%	10.607%
2	8.565	1113	1124	1138	rVB	121497	282392	39.90%	9.840%
3	9.083	1204	1212	1222	rBV	254052	531031	75.03%	18.503%
4	10.547	1452	1461	1470	rBV	388194	707735	100.00%	24.660%
5	11.847	1672	1682	1694	rBV	336335	625660	88.40%	21.801%
6	12.829	1842	1849	1860	rBV	241113	418699	59.16%	14.589%

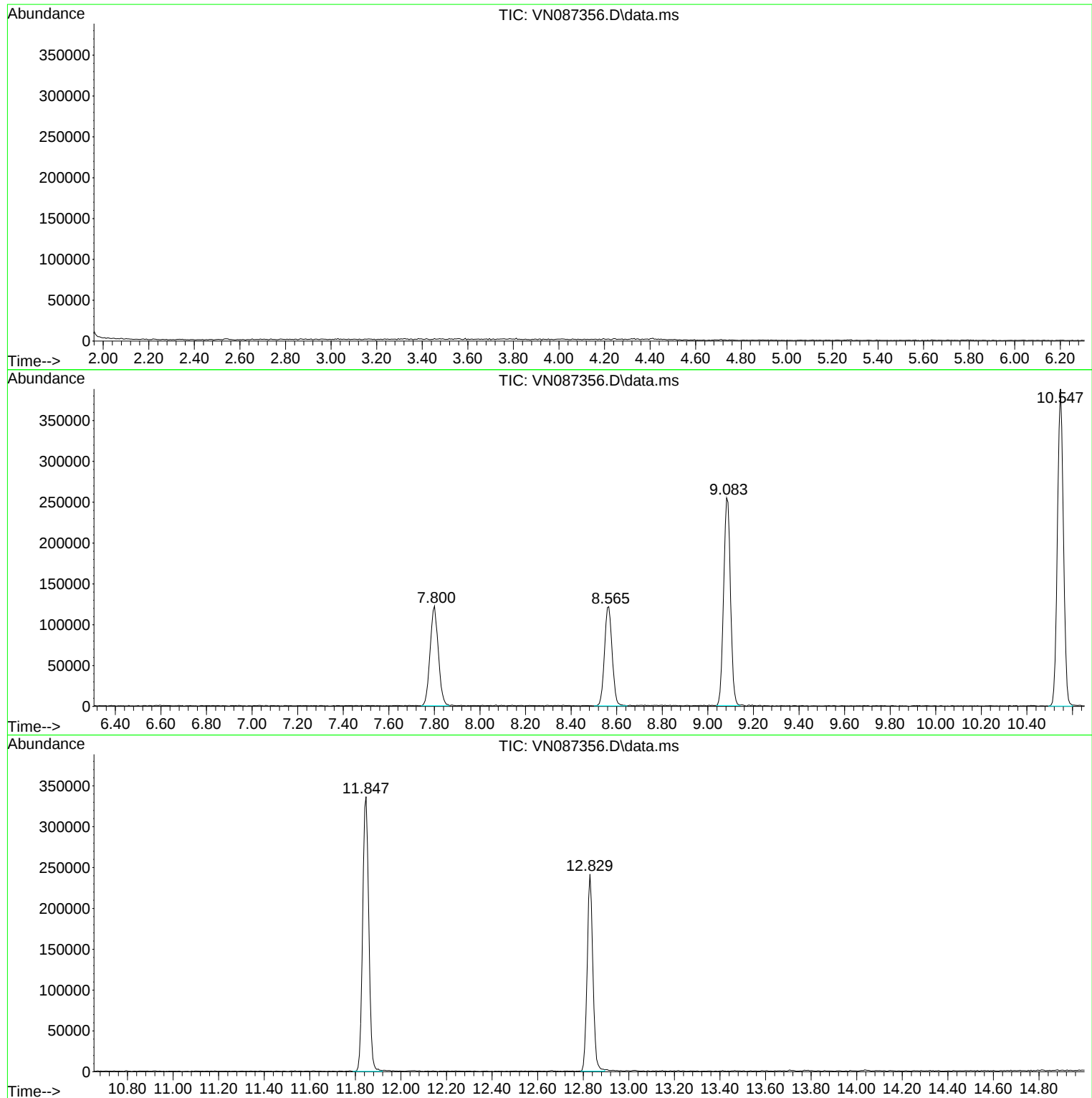
Sum of corrected areas: 2869921

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087356.D
Acq On : 18 Jul 2025 11:04
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087356.D
Acq On : 18 Jul 2025 11:04
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

A

B

C

D

E

F

G

H

I

J

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087356.D
Acq On : 18 Jul 2025 11:04
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

A

B

C

D

E

F

G

H

I

J

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
 Data File : VN087354.D
 Acq On : 18 Jul 2025 09:49
 Operator : JC\MD
 Sample : VN0718WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0718WBS01

Manual Integrations APPROVED

Reviewed By : John Carlone 07/21/2025
 Supervised By : Mahesh Dadoda 07/21/2025

Quant Time: Jul 18 23:15:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Jun 25 10:49:56 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.800	128	47522	30.000	ug/l	-0.02
28) 1,4-Difluorobenzene	9.083	114	244435	30.000	ug/l	-0.02
57) Chlorobenzene-d5	11.847	117	221298	30.000	ug/l	-0.02
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.565	65	111922	31.258	ug/l	-0.02
Spiked Amount 30.000	Range 91 - 110		Recovery = 104.200%			
60) 4-Bromofluorobenzene	12.829	95	107177	31.385	ug/l	-0.02
Spiked Amount 30.000	Range 63 - 112		Recovery = 104.633%			
63) Toluene-d8	10.547	98	297958	29.987	ug/l	-0.02
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.967%			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.142	85	46040	16.094	ug/l	92
3) Chloromethane	2.383	50	52156	17.851	ug/l	95
4) Vinyl Chloride	2.542	62	55991	17.632	ug/l	97
5) Bromomethane	2.983	94	31368	18.613	ug/l	94
6) Chloroethane	3.142	64	35021	20.559	ug/l	89
7) Trichlorofluoromethane	3.512	101	84060	21.581	ug/l	94
8) Diethyl Ether	3.959	74	35222	18.405	ug/l	94
9) 1,1,2-Trichlorotrifluo...	4.365	101	45806	15.862	ug/l #	86
10) 1,1-Dichloroethene	4.336	96	44010	15.288	ug/l	93
11) Methyl Iodide	4.577	142	45963	17.822	ug/l	83
12) Methyl Acetate	5.012	43	94157	20.852	ug/l	98
13) Acrolein	4.171	56	46346	66.797	ug/l	99
14) Acrylonitrile	5.706	53	194390	92.295	ug/l	99
15) Acetone	4.424	58	50273	81.828	ug/l #	67
16) Carbon Disulfide	4.700	76	120368	14.301	ug/l	99
17) Allyl chloride	5.006	41	83723	17.633	ug/l	95
18) Methylene Chloride	5.265	84	61633	18.481	ug/l #	88
19) trans-1,2-Dichloroethene	5.765	96	50015	15.887	ug/l	94
20) Diisopropyl ether	6.665	45	200651	19.919	ug/l	95
21) 1,1-Dichloroethane	6.553	63	108440	18.011	ug/l	97
22) cis-1,2-Dichloroethene	7.471	96	66003	18.014	ug/l	99
23) tert-Butyl Alcohol	5.518	59	70858	89.457	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	197607	19.572	ug/l #	85
25) Chloroform	7.953	83	112809	19.558	ug/l	98
26) Cyclohexane	8.241	56	82625	16.510	ug/l #	97
29) 1,1-Dichloropropene	8.353	75	73612	19.322	ug/l	97
30) 2-Butanone	7.471	43	273944	106.594	ug/l	97
31) 2,2-Dichloropropane	7.477	77	88722	19.292	ug/l	97
32) 1,1,1-Trichloroethane	8.153	97	94766	21.291	ug/l	99
33) Carbon Tetrachloride	8.341	117	79873	21.324	ug/l	94
34) Benzene	8.588	78	230543	19.101	ug/l	98
35) Methacrylonitrile	7.765	41	54370	20.992	ug/l	92
36) 1,2-Dichloroethane	8.653	62	89095	22.847	ug/l	100
37) Trichloroethene	9.335	130	54222	19.476	ug/l	90
38) Methylcyclohexane	9.583	83	82279	18.822	ug/l	97
39) 1,2-Dichloropropane	9.600	63	61741	20.380	ug/l	95
40) Dibromomethane	9.688	93	44656	21.678	ug/l	97
41) Bromodichloromethane	9.871	83	90440	21.751	ug/l	100
42) Vinyl Acetate	6.589	43	814344	97.423	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
 Data File : VN087354.D
 Acq On : 18 Jul 2025 09:49
 Operator : JC\MD
 Sample : VN0718WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0718WBS01

Manual Integrations APPROVED

Reviewed By : John Carlone 07/21/2025
 Supervised By : Mahesh Dadoda 07/21/2025

Quant Time: Jul 18 23:15:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Jun 25 10:49:56 2025
 Response via : Initial Calibration

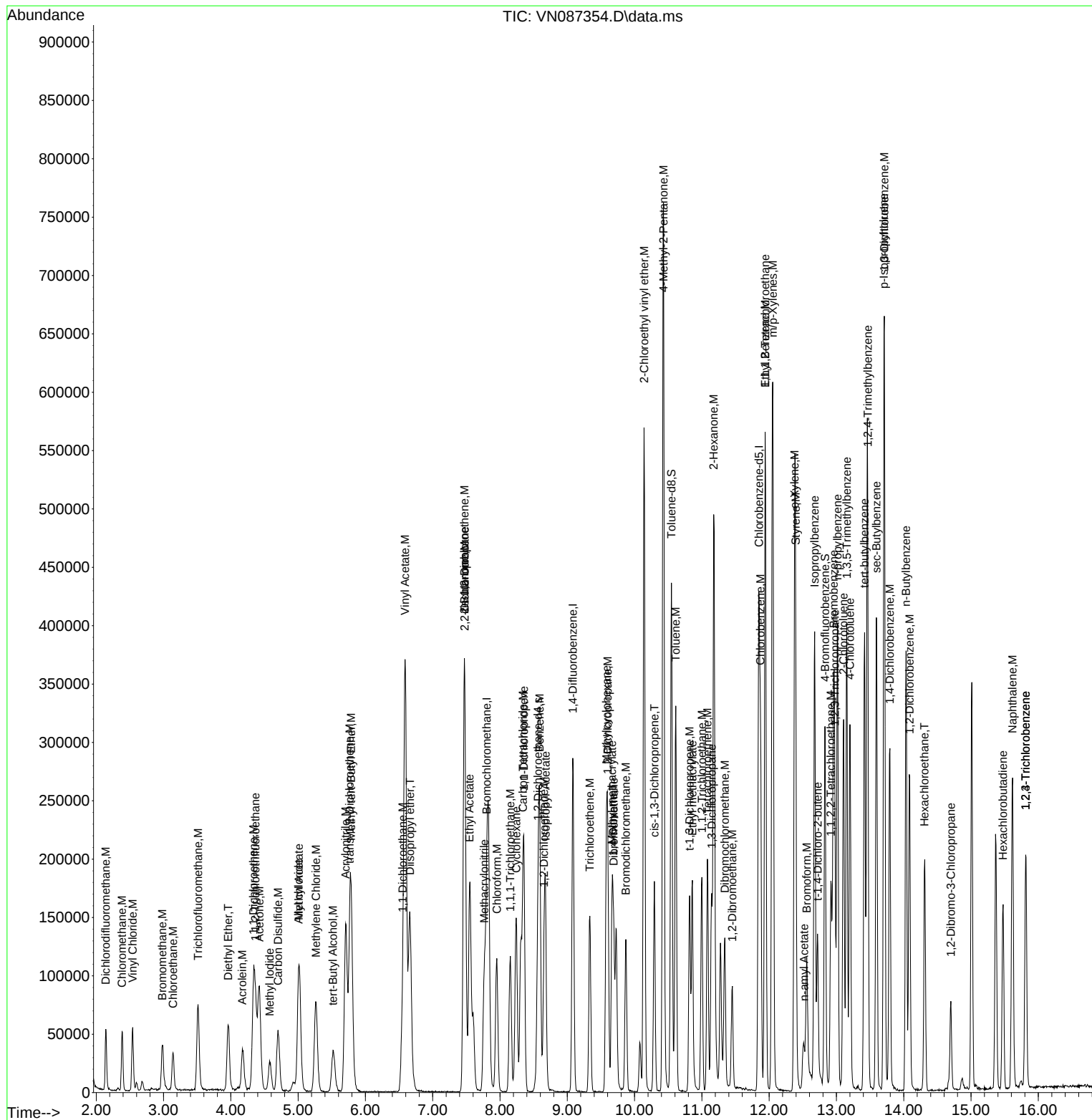
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	104599	22.546	ug/l	99
44) Isopropyl Acetate	8.677	43	168318	22.268	ug/l	97
45) 1,4-Dioxane	9.683	88	22395	437.982	ug/l	96
46) Methyl methacrylate	9.665	41	77417	22.032	ug/l	91
47) n-amyl Acetate	12.518	43	103268m	22.346	ug/l	
48) t-1,3-Dichloropropene	10.818	75	97826	21.105	ug/l	97
49) cis-1,3-Dichloropropene	10.294	75	98514	19.992	ug/l	94
50) 1,1,2-Trichloroethane	11.000	97	59759	20.422	ug/l	96
51) Ethyl methacrylate	10.859	69	99466	22.333	ug/l	95
52) 1,3-Dichloropropane	11.147	76	103837	20.670	ug/l	100
53) Dibromochloromethane	11.341	129	66541	21.663	ug/l	98
54) 1,2-Dibromoethane	11.453	107	60898	20.172	ug/l	98
55) 2-Chloroethyl vinyl ether	10.141	63	250674	98.193	ug/l	99
56) Bromoform	12.559	173	43849	20.766	ug/l #	99
58) 4-Methyl-2-Pentanone	10.430	43	538352	121.008	ug/l	97
59) 2-Hexanone	11.177	43	364057	126.726	ug/l	91
61) Tetrachloroethene	11.082	164	43638	19.912	ug/l	95
62) Toluene	10.612	91	243667	19.496	ug/l	97
64) Chlorobenzene	11.871	112	156878	19.677	ug/l	94
65) 1,1,1,2-Tetrachloroethane	11.941	131	55487	21.064	ug/l	98
66) Ethyl Benzene	11.941	91	267636	19.563	ug/l	98
67) m/p-Xylenes	12.053	106	207896	39.657	ug/l	99
68) o-Xylene	12.376	106	102410	20.476	ug/l	96
69) Styrene	12.394	104	164445	19.152	ug/l	97
70) Isopropylbenzene	12.676	105	257201	20.649	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.918	83	92663	20.667	ug/l	96
72) 1,2,3-Trichloropropane	12.976	75	88121m	22.792	ug/l	
73) Bromobenzene	12.959	156	63051	20.867	ug/l	95
74) n-propylbenzene	13.018	91	317325	20.853	ug/l	99
75) 2-Chlorotoluene	13.106	91	185378	20.164	ug/l	98
76) 1,3,5-Trimethylbenzene	13.153	105	217196	21.419	ug/l	98
77) t-1,4-Dichloro-2-butene	12.724	75	31906	18.604	ug/l	98
78) 4-Chlorotoluene	13.200	91	191958	20.387	ug/l	98
79) tert-butylbenzene	13.418	119	188065	22.063	ug/l	98
80) 1,2,4-Trimethylbenzene	13.465	105	213138	20.932	ug/l	100
81) sec-Butylbenzene	13.594	105	275791	22.258	ug/l	100
82) p-Isopropyltoluene	13.706	119	233831	22.676	ug/l	99
83) 1,3-Dichlorobenzene	13.712	146	119952	20.616	ug/l	98
84) 1,4-Dichlorobenzene	13.794	146	125908	21.501	ug/l	99
85) n-Butylbenzene	14.035	91	217503	23.118	ug/l	97
86) Hexachloroethane	14.306	117	41372	21.196	ug/l	86
87) 1,2-Dichlorobenzene	14.088	146	117040	21.333	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.700	75	21197	20.996	ug/l	96
89) 1,2,4-Trichlorobenzene	15.812	180	71387	22.999	ug/l	99
90) Hexachlorobutadiene	15.476	225	30129	32.711	ug/l	96
91) Naphthalene	15.617	128	251907	20.621	ug/l	100
92) 1,2,3-Trichlorobenzene	15.812	180	71387	22.999	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS01

Manual Integrations

Reviewed By :John Carlone 07/21/2025
Supervised By :Mahesh Dadoda 07/21/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
 Data File : VN087361.D
 Acq On : 18 Jul 2025 13:16
 Operator : JC\MD
 Sample : VN0718WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0718WBSD01

Manual Integrations APPROVED

Reviewed By : John Carlone 07/21/2025
 Supervised By : Mahesh Dadoda 07/21/2025

Quant Time: Jul 18 23:18:57 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Jun 25 10:49:56 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.800	128	42433	30.000	ug/l	-0.02
28) 1,4-Difluorobenzene	9.083	114	214950	30.000	ug/l	-0.02
57) Chlorobenzene-d5	11.847	117	202696	30.000	ug/l	-0.02
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	103525	32.381	ug/l	-0.02
Spiked Amount	30.000	Range	91 - 110	Recovery	= 107.933%	
60) 4-Bromofluorobenzene	12.829	95	99771	31.898	ug/l	-0.02
Spiked Amount	30.000	Range	63 - 112	Recovery	= 106.333%	
63) Toluene-d8	10.547	98	275131	30.231	ug/l	-0.02
Spiked Amount	30.000	Range	91 - 112	Recovery	= 100.767%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	35853	14.036	ug/l	97
3) Chloromethane	2.383	50	41885	16.055	ug/l	96
4) Vinyl Chloride	2.536	62	44855	15.819	ug/l	95
5) Bromomethane	2.983	94	18361	12.202	ug/l	89
6) Chloroethane	3.142	64	30637	20.142	ug/l	96
7) Trichlorofluoromethane	3.518	101	69722	20.047	ug/l	89
8) Diethyl Ether	3.959	74	30088	17.608	ug/l	91
9) 1,1,2-Trichlorotrifluo...	4.359	101	38544	14.948	ug/l	95
10) 1,1-Dichloroethene	4.336	96	37395	14.548	ug/l	86
11) Methyl Iodide	4.577	142	26704	11.596	ug/l	91
12) Methyl Acetate	5.018	43	82847	20.548	ug/l #	85
13) Acrolein	4.183	56	48089	77.621	ug/l	98
14) Acrylonitrile	5.712	53	167411	89.018	ug/l	98
15) Acetone	4.424	58	49031	89.378	ug/l	79
16) Carbon Disulfide	4.701	76	102241	13.604	ug/l	100
17) Allyl chloride	5.012	41	75076	17.708	ug/l	93
18) Methylene Chloride	5.259	84	51714	17.367	ug/l	96
19) trans-1,2-Dichloroethene	5.771	96	43214	15.373	ug/l	97
20) Diisopropyl ether	6.659	45	173529	19.292	ug/l	96
21) 1,1-Dichloroethane	6.553	63	94938	17.660	ug/l	95
22) cis-1,2-Dichloroethene	7.471	96	54987	16.808	ug/l	95
23) tert-Butyl Alcohol	5.524	59	59706	84.418	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	165732	18.384	ug/l	98
25) Chloroform	7.953	83	98002	19.028	ug/l	100
26) Cyclohexane	8.241	56	65075	14.563	ug/l #	98
29) 1,1-Dichloropropene	8.359	75	60948	18.192	ug/l	97
30) 2-Butanone	7.471	43	246967	109.279	ug/l	96
31) 2,2-Dichloropropane	7.471	77	80501	19.905	ug/l	95
32) 1,1,1-Trichloroethane	8.147	97	80024	20.445	ug/l	99
33) Carbon Tetrachloride	8.347	117	67642	20.536	ug/l	96
34) Benzene	8.589	78	199829	18.827	ug/l	98
35) Methacrylonitrile	7.765	41	50200	22.041	ug/l	95
36) 1,2-Dichloroethane	8.659	62	77012	22.457	ug/l	98
37) Trichloroethene	9.336	130	44812	18.304	ug/l	98
38) Methylcyclohexane	9.583	83	63597	16.544	ug/l	97
39) 1,2-Dichloropropane	9.606	63	51797	19.443	ug/l	98
40) Dibromomethane	9.694	93	37885	20.914	ug/l	98
41) Bromodichloromethane	9.871	83	78887	21.575	ug/l #	96
42) Vinyl Acetate	6.589	43	786848	107.046	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
 Data File : VN087361.D
 Acq On : 18 Jul 2025 13:16
 Operator : JC\MD
 Sample : VN0718WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0718WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 07/21/2025
 Supervised By : Mahesh Dadoda 07/21/2025

Quant Time: Jul 18 23:18:57 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Jun 25 10:49:56 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.553	43	92098	22.575	ug/l	100
44) Isopropyl Acetate	8.677	43	147643	22.212	ug/l	97
45) 1,4-Dioxane	9.683	88	18109	402.741	ug/l #	96
46) Methyl methacrylate	9.665	41	65982	21.353	ug/l	91
47) n-amyl Acetate	12.518	43	88985m	21.896	ug/l	
48) t-1,3-Dichloropropene	10.818	75	81666	20.035	ug/l	97
49) cis-1,3-Dichloropropene	10.294	75	85567	19.747	ug/l	91
50) 1,1,2-Trichloroethane	10.994	97	51059	19.843	ug/l	97
51) Ethyl methacrylate	10.859	69	78913	20.149	ug/l	86
52) 1,3-Dichloropropane	11.147	76	89110	20.171	ug/l	99
53) Dibromochloromethane	11.341	129	58941	21.821	ug/l	97
54) 1,2-Dibromoethane	11.447	107	51936	19.563	ug/l	100
55) 2-Chloroethyl vinyl ether	10.141	63	229622	102.285	ug/l	100
56) Bromoform	12.559	173	37792	20.353	ug/l #	95
58) 4-Methyl-2-Pentanone	10.430	43	484568	118.914	ug/l	94
59) 2-Hexanone	11.182	43	321652	122.241	ug/l	91
61) Tetrachloroethene	11.082	164	37558	18.711	ug/l	89
62) Toluene	10.612	91	214455	18.733	ug/l	99
64) Chlorobenzene	11.871	112	138176	18.922	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.941	131	49360	20.457	ug/l	98
66) Ethyl Benzene	11.947	91	228458	18.232	ug/l	100
67) m/p-Xylenes	12.053	106	177611	36.990	ug/l	98
68) o-Xylene	12.377	106	85132	18.584	ug/l	96
69) Styrene	12.394	104	147470	18.751	ug/l	98
70) Isopropylbenzene	12.677	105	216730	18.996	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.918	83	82216	20.020	ug/l	99
72) 1,2,3-Trichloropropane	12.971	75	80548m	22.745	ug/l	
73) Bromobenzene	12.959	156	55891	20.195	ug/l	93
74) n-propylbenzene	13.012	91	275814	19.788	ug/l	99
75) 2-Chlorotoluene	13.106	91	161776	19.212	ug/l	97
76) 1,3,5-Trimethylbenzene	13.153	105	184498	19.864	ug/l	100
77) t-1,4-Dichloro-2-butene	12.718	75	21439	13.648	ug/l	86
78) 4-Chlorotoluene	13.200	91	170444	19.763	ug/l	99
79) tert-butylbenzene	13.418	119	159673	20.452	ug/l	98
80) 1,2,4-Trimethylbenzene	13.459	105	187139	20.065	ug/l	98
81) sec-Butylbenzene	13.594	105	231192	20.370	ug/l	99
82) p-Isopropyltoluene	13.706	119	192583	20.390	ug/l	97
83) 1,3-Dichlorobenzene	13.712	146	107976	20.260	ug/l	98
84) 1,4-Dichlorobenzene	13.788	146	106059	19.774	ug/l	98
85) n-Butylbenzene	14.035	91	178654	20.732	ug/l	99
86) Hexachloroethane	14.312	117	35454	19.831	ug/l	91
87) 1,2-Dichlorobenzene	14.082	146	101395	20.178	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.694	75	18194	19.675	ug/l	98
89) 1,2,4-Trichlorobenzene	15.812	180	60524	21.289	ug/l	98
90) Hexachlorobutadiene	15.476	225	24689	29.265	ug/l	95
91) Naphthalene	15.612	128	211981	18.945	ug/l	99
92) 1,2,3-Trichlorobenzene	15.812	180	60524	21.289	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

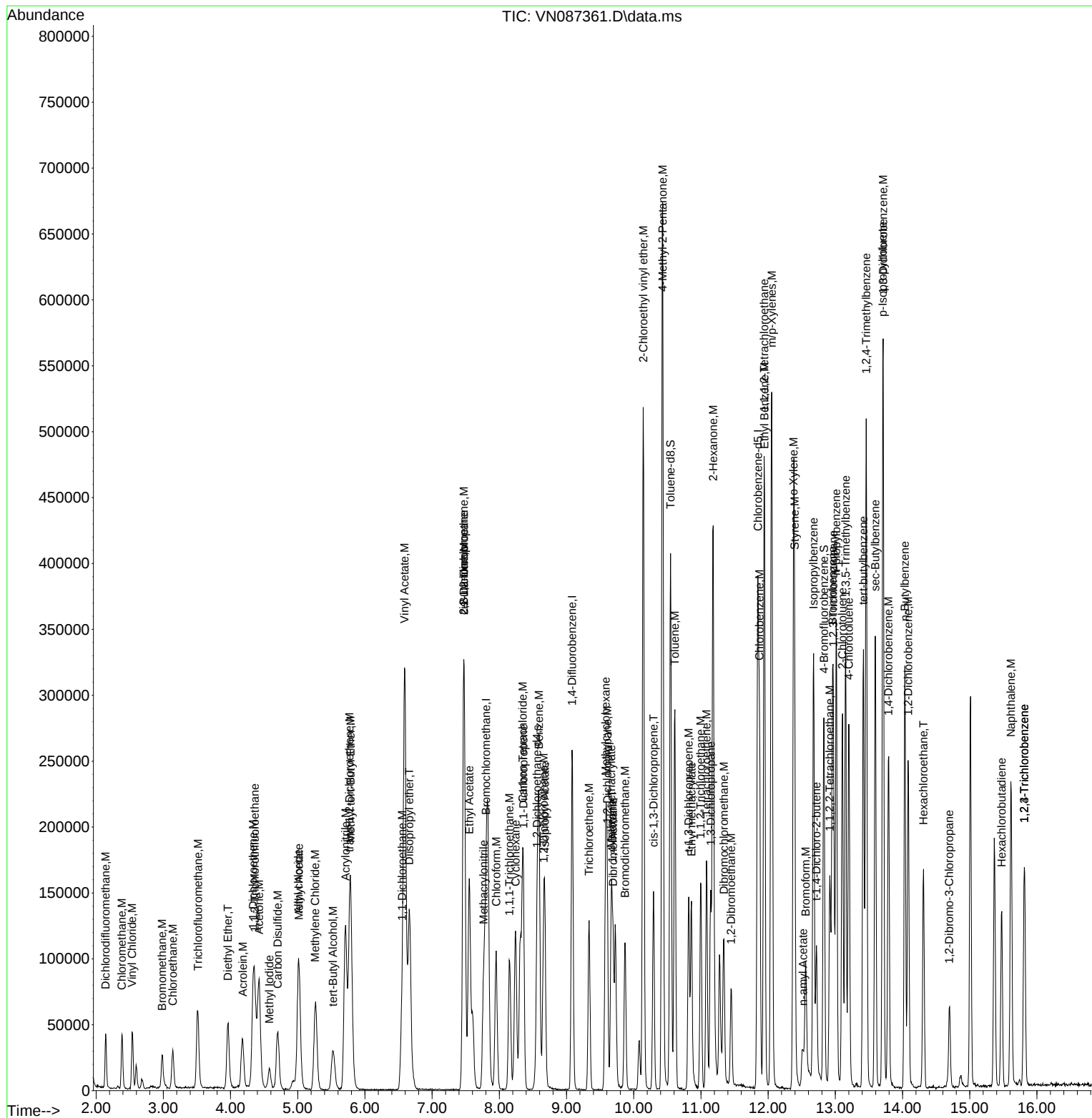
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071825\
Data File : VN087361.D
Acq On : 18 Jul 2025 13:16
Operator : JC\MD
Sample : VN0718WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD01

Manual Integrations
APPROVED

Reviewed By : John Carlone 07/21/2025
Supervised By : Mahesh Dadoda 07/21/2025

Quant Time: Jul 18 23:18:57 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N062525W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Jun 25 10:49:56 2025
Response via : Initial Calibration



Manual Integration Report

Sequence:	VN062525	Instrument	MSVOA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VN087162.D	1,2,3-Trichloropropane	JOHN	6/25/2025 3:54:52 PM	MMDadoda	6/26/2025 2:39:55 PM	Peak Integrated by Software
VSTDICC005	VN087162.D	2-Hexanone	JOHN	6/25/2025 3:54:52 PM	MMDadoda	6/26/2025 2:39:55 PM	Peak Integrated by Software
VSTDICC005	VN087162.D	Carbon Tetrachloride	JOHN	6/25/2025 3:54:52 PM	MMDadoda	6/26/2025 2:39:55 PM	Peak Integrated by Software
VSTDICC005	VN087162.D	Ethyl Acetate	JOHN	6/25/2025 3:54:52 PM	MMDadoda	6/26/2025 2:39:55 PM	Peak Integrated by Software
VSTDICC005	VN087162.D	Ethyl methacrylate	JOHN	6/25/2025 3:54:52 PM	MMDadoda	6/26/2025 2:39:55 PM	Peak Integrated by Software
VSTDICC005	VN087162.D	Methacrylonitrile	JOHN	6/25/2025 3:54:52 PM	MMDadoda	6/26/2025 2:39:55 PM	Peak Integrated by Software
VSTDICC005	VN087162.D	n-amyl Acetate	JOHN	6/25/2025 3:54:52 PM	MMDadoda	6/26/2025 2:39:55 PM	Peak Integrated by Software
VSTDICC005	VN087162.D	tert-Butyl Alcohol	JOHN	6/25/2025 3:54:52 PM	MMDadoda	6/26/2025 2:39:55 PM	Peak Integrated by Software
VSTDICCC020	VN087163.D	1,2,3-Trichloropropane	JOHN	6/25/2025 3:54:56 PM	MMDadoda	6/26/2025 2:39:57 PM	Peak Integrated by Software
VSTDICCC020	VN087163.D	n-amyl Acetate	JOHN	6/25/2025 3:54:56 PM	MMDadoda	6/26/2025 2:39:57 PM	Peak Integrated by Software
VSTDICC050	VN087164.D	1,2,3-Trichloropropane	JOHN	6/25/2025 3:55:01 PM	MMDadoda	6/26/2025 2:40:07 PM	Peak Integrated by Software
VSTDICC100	VN087165.D	1,2,3-Trichloropropane	JOHN	6/25/2025 3:55:06 PM	MMDadoda	6/26/2025 2:40:11 PM	Peak Integrated by Software
VSTDICC150	VN087166.D	1,2,3-Trichloropropane	JOHN	6/25/2025 3:55:12 PM	MMDadoda	6/26/2025 2:40:18 PM	Peak Integrated by Software

Manual Integration Report

Sequence:

VN062525

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICV020	VN087168.D	1,2,3-Trichloropropane	JOHN	6/25/2025 3:55:16 PM	MMDadoda	6/26/2025 2:40:24 PM	Peak Integrated by Software
VSTDICV020	VN087168.D	n-amyl Acetate	JOHN	6/25/2025 3:55:16 PM	MMDadoda	6/26/2025 2:40:24 PM	Peak Integrated by Software
VSTDCCC020	VN087179.D	1,2,3-Trichloropropane	JOHN	6/26/2025 8:29:10 AM	MMDadoda	6/26/2025 2:40:36 PM	Peak Integrated by Software
VSTDCCC020	VN087179.D	n-amyl Acetate	JOHN	6/26/2025 8:29:10 AM	MMDadoda	6/26/2025 2:40:36 PM	Peak Integrated by Software

Manual Integration Report

Sequence:	VN071825	Instrument	MSVOA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC020	VN087353.D	1,1,2-Trichlorotrifluoroethane	JOHN	7/21/2025 8:43:29 AM	MMDadoda	7/21/2025 1:55:25 PM	Peak Integrated by Software
VSTDCCC020	VN087353.D	1,2,3-Trichloropropane	JOHN	7/21/2025 8:43:29 AM	MMDadoda	7/21/2025 1:55:25 PM	Peak Integrated by Software
VSTDCCC020	VN087353.D	Diethyl Ether	JOHN	7/21/2025 8:43:29 AM	MMDadoda	7/21/2025 1:55:25 PM	Peak Integrated by Software
VSTDCCC020	VN087353.D	n-amyl Acetate	JOHN	7/21/2025 8:43:29 AM	MMDadoda	7/21/2025 1:55:25 PM	Peak Integrated by Software
VN0718WBS01	VN087354.D	1,2,3-Trichloropropane	JOHN	7/21/2025 8:43:34 AM	MMDadoda	7/21/2025 1:55:27 PM	Peak Integrated by Software
VN0718WBS01	VN087354.D	n-amyl Acetate	JOHN	7/21/2025 8:43:34 AM	MMDadoda	7/21/2025 1:55:27 PM	Peak Integrated by Software
VN0718WBSD01	VN087361.D	1,2,3-Trichloropropane	JOHN	7/21/2025 8:43:58 AM	MMDadoda	7/21/2025 1:55:43 PM	Peak Integrated by Software
VN0718WBSD01	VN087361.D	n-amyl Acetate	JOHN	7/21/2025 8:43:58 AM	MMDadoda	7/21/2025 1:55:43 PM	Peak Integrated by Software
VSTDCCC020	VN087366.D	1,2,3-Trichloropropane	JOHN	7/21/2025 8:46:40 AM	MMDadoda	7/21/2025 1:55:44 PM	Peak Integrated by Software
VSTDCCC020	VN087366.D	Methylene Chloride	JOHN	7/21/2025 8:46:40 AM	MMDadoda	7/21/2025 1:55:44 PM	Peak Integrated by Software
VSTDCCC020	VN087366.D	n-amyl Acetate	JOHN	7/21/2025 8:46:40 AM	MMDadoda	7/21/2025 1:55:44 PM	Peak Integrated by Software
VSTDCCC020	VN087366.D	trans-1,2-Dichloroethene	JOHN	7/21/2025 8:46:40 AM	MMDadoda	7/21/2025 1:55:44 PM	Peak Integrated by Software



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

Manual Integration Report

Sequence:

VN071825

Instrument

MSVOA_n

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN062525

Review By	John Carlone	Review On	6/26/2025 8:30:28 AM
Supervise By	Mahesh Dadoda	Supervise On	6/26/2025 2:41:09 PM
SubDirectory	VN062525	HP Acquire Method	HP Processing Method 624N062525W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP134497		
Initial Calibration Stds	VP134518,VP134519,VP134520,VP134521,VP134522		
CCC	VP134498,VP134524,VP134525		
Internal Standard/PEM			
ICV/I.BLK	VP134523		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN087161.D	25 Jun 2025 08:25	JC\MD	Ok
2	VSTDIC005	VN087162.D	25 Jun 2025 08:59	JC\MD	Ok,M
3	VSTDICCC020	VN087163.D	25 Jun 2025 09:20	JC\MD	Ok,M
4	VSTDIC050	VN087164.D	25 Jun 2025 09:41	JC\MD	Ok,M
5	VSTDIC0100	VN087165.D	25 Jun 2025 10:03	JC\MD	Ok,M
6	VSTDIC0150	VN087166.D	25 Jun 2025 10:24	JC\MD	Ok,M
7	IBLK	VN087167.D	25 Jun 2025 10:46	JC\MD	Ok
8	VSTDICV020	VN087168.D	25 Jun 2025 11:08	JC\MD	Ok,M
9	VN0625WBS01	VN087169.D	25 Jun 2025 11:41	JC\MD	Ok,M
10	VN0625WBSD01	VN087170.D	25 Jun 2025 12:15	JC\MD	Ok,M
11	VN0625WBL01	VN087171.D	25 Jun 2025 12:36	JC\MD	Ok
12	Q2349-01	VN087172.D	25 Jun 2025 13:11	JC\MD	Dilution
13	Q2349-04	VN087173.D	25 Jun 2025 13:33	JC\MD	Dilution
14	Q2349-01DL	VN087174.D	25 Jun 2025 13:54	JC\MD	Ok
15	Q2349-04DL	VN087175.D	25 Jun 2025 14:15	JC\MD	Ok
16	IBLK	VN087176.D	25 Jun 2025 14:37	JC\MD	Ok
17	Q2126-07 2.5PPB	VN087177.D	25 Jun 2025 14:58	JC\MD	Ok,M
18	Q2126-08 5.0PPB	VN087178.D	25 Jun 2025 15:20	JC\MD	Ok,M
19	VSTDCCC020	VN087179.D	25 Jun 2025 16:12	JC\MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN071825

Review By	John Carlone	Review On	7/21/2025 8:49:59 AM		
Supervise By	Maresh Dadoda	Supervise On	7/21/2025 1:55:50 PM		
SubDirectory	VN071825	HP Acquire Method	MSVOA_N	HP Processing Method	624n062525w.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP134817			
CCC		VP134818,VP134819			
Internal Standard/PEM		VP134691			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN087352.D	18 Jul 2025 08:42	JC\MD	Ok
2	VSTDCCC020	VN087353.D	18 Jul 2025 09:15	JC\MD	Ok,M
3	VN0718WBS01	VN087354.D	18 Jul 2025 09:49	JC\MD	Ok,M
4	VN0718WBS02	VN087355.D	18 Jul 2025 10:21	JC\MD	Not Ok
5	VN0718WBL01	VN087356.D	18 Jul 2025 11:04	JC\MD	Ok
6	Q2630-01	VN087357.D	18 Jul 2025 11:51	JC\MD	Dilution
7	Q2630-02	VN087358.D	18 Jul 2025 12:12	JC\MD	Dilution
8	Q2585-01	VN087359.D	18 Jul 2025 12:34	JC\MD	ReRun
9	Q2594-01	VN087360.D	18 Jul 2025 12:55	JC\MD	Not Ok
10	VN0718WBSD01	VN087361.D	18 Jul 2025 13:16	JC\MD	Ok,M
11	Q2630-01DL	VN087362.D	18 Jul 2025 13:37	JC\MD	Ok
12	Q2630-02DL	VN087363.D	18 Jul 2025 13:59	JC\MD	Ok
13	Q2585-01	VN087364.D	18 Jul 2025 14:20	JC\MD	Ok
14	Q2594-01	VN087365.D	18 Jul 2025 14:41	JC\MD	Ok
15	VSTDCCC020	VN087366.D	18 Jul 2025 15:02	JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN062525

Review By	John Carlone	Review On	6/26/2025 8:30:28 AM
Supervise By	Maresh Dadoda	Supervise On	6/26/2025 2:41:09 PM
SubDirectory	VN062525	HP Acquire Method	HP Processing Method 624N062525W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP134497		
Initial Calibration Stds	VP134518,VP134519,VP134520,VP134521,VP134522		
CCC	VP134498,VP134524,VP134525		
Internal Standard/PEM			
ICV/I.BLK	VP134523		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	Sampleld	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN087161.D	25 Jun 2025 08:25		JC\MD	Ok
2	VSTDIC005	VSTDIC005	VN087162.D	25 Jun 2025 08:59		JC\MD	Ok,M
3	VSTDICCC020	VSTDICCC020	VN087163.D	25 Jun 2025 09:20		JC\MD	Ok,M
4	VSTDIC050	VSTDIC050	VN087164.D	25 Jun 2025 09:41		JC\MD	Ok,M
5	VSTDIC100	VSTDIC100	VN087165.D	25 Jun 2025 10:03		JC\MD	Ok,M
6	VSTDIC150	VSTDIC150	VN087166.D	25 Jun 2025 10:24		JC\MD	Ok,M
7	IBLK	IBLK	VN087167.D	25 Jun 2025 10:46		JC\MD	Ok
8	VSTDICV020	ICVVN062525	VN087168.D	25 Jun 2025 11:08	pH#Lot#V12668	JC\MD	Ok,M
9	VN0625WBS01	VN0625WBS01	VN087169.D	25 Jun 2025 11:41		JC\MD	Ok,M
10	VN0625WBSD01	VN0625WBSD01	VN087170.D	25 Jun 2025 12:15		JC\MD	Ok,M
11	VN0625WBL01	VN0625WBL01	VN087171.D	25 Jun 2025 12:36		JC\MD	Ok
12	Q2349-01	001-WILLETS-PT-BLVD	VN087172.D	25 Jun 2025 13:11	vial A pH<2 need 20X	JC\MD	Dilution
13	Q2349-04	002-35TH-AVE(JUNE)	VN087173.D	25 Jun 2025 13:33	vial A pH<2 need 20X	JC\MD	Dilution
14	Q2349-01DL	001-WILLETS-PT-BLVD	VN087174.D	25 Jun 2025 13:54	vial B pH<2	JC\MD	Ok
15	Q2349-04DL	002-35TH-AVE(JUNE)	VN087175.D	25 Jun 2025 14:15	vial B pH<2	JC\MD	Ok
16	IBLK	IBLK	VN087176.D	25 Jun 2025 14:37		JC\MD	Ok
17	Q2126-07 2.5PPB	LOD-MDL-WATER-01-CL	VN087177.D	25 Jun 2025 14:58		JC\MD	Ok,M
18	Q2126-08 5.0PPB	LOQ-WATER-02-QT2-2	VN087178.D	25 Jun 2025 15:20		JC\MD	Ok,M

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN062525

Review By	John Carlone	Review On	6/26/2025 8:30:28 AM
Supervise By	Mahesh Dadoda	Supervise On	6/26/2025 2:41:09 PM
SubDirectory	VN062525	HP Acquire Method	HP Processing Method 624N062525W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP134497		
Initial Calibration Stds	VP134518,VP134519,VP134520,VP134521,VP134522		
CCC	VP134498,VP134524,VP134525		
Internal Standard/PEM			
ICV/I.BLK	VP134523		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

19	VSTDCCC020	VSTDCCC020EC	VN087179.D	25 Jun 2025 16:12		JC\MD	Ok,M
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M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN071825

Review By	John Carlone	Review On	7/21/2025 8:49:59 AM
Supervise By	Maresh Dadoda	Supervise On	7/21/2025 1:55:50 PM
SubDirectory	VN071825	HP Acquire Method	MSVOA_N HP Processing Method 624n062525w.m
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP134817		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP134818,VP134819 VP134691		

Sr#	Sampleld	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN087352.D	18 Jul 2025 08:42		JC\MD	Ok
2	VSTDCCC020	VSTDCCC020	VN087353.D	18 Jul 2025 09:15		JC\MD	Ok,M
3	VN0718WBS01	VN0718WBS01	VN087354.D	18 Jul 2025 09:49		JC\MD	Ok,M
4	VN0718WBS02	VN0718WBS02	VN087355.D	18 Jul 2025 10:21	surrogate failed	JC\MD	Not Ok
5	VN0718WBL01	VN0718WBL01	VN087356.D	18 Jul 2025 11:04		JC\MD	Ok
6	Q2630-01	001 Willets Pt Blvd (Jur	VN087357.D	18 Jul 2025 11:51	vial A pH<2 Need 5X	JC\MD	Dilution
7	Q2630-02	002 35th Ave (JUNE)	VN087358.D	18 Jul 2025 12:12	vial A pH<2 Surrogate Fail;Need 5X	JC\MD	Dilution
8	Q2585-01	EFF-WW	VN087359.D	18 Jul 2025 12:34	vial A pH<2 Surrogate fail;E flag of previous sample	JC\MD	ReRun
9	Q2594-01	CC-071325-RW	VN087360.D	18 Jul 2025 12:55	Surrogate Fail;Run @ lower dilution	JC\MD	Not Ok
10	VN0718WBSD01	VN0718WBSD01	VN087361.D	18 Jul 2025 13:16	BSD Failed Low for com.#16,26	JC\MD	Ok,M
11	Q2630-01DL	001 Willets Pt Blvd (Jur	VN087362.D	18 Jul 2025 13:37	vial B pH<2	JC\MD	Ok
12	Q2630-02DL	002 35th Ave (JUNE)DI	VN087363.D	18 Jul 2025 13:59	vial B pH<2	JC\MD	Ok
13	Q2585-01	EFF-WW	VN087364.D	18 Jul 2025 14:20	vial B pH<2	JC\MD	Ok
14	Q2594-01	CC-071325-RW	VN087365.D	18 Jul 2025 14:41	vial A pH<2	JC\MD	Ok
15	VSTDCCC020	VSTDCCC020EC	VN087366.D	18 Jul 2025 15:02		JC\MD	Ok,M

M : Manual Integration

LAB CHRONICLE

OrderID:	Q2594	OrderDate:	7/14/2025 12:05:00 PM
Client:	Environmental Restoration, LLC	Project:	Cooper Chemical - Long Valley NJ 2-COOP-ANS
Contact:	Byron Hartman	Location:	O41,O42,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2594-01	CC-071325-RW	Water	VOC-TCLVOA-10	624.1	07/14/25		07/18/25	07/14/25