

**DATA PACKAGE
VOLATILE ORGANICS**

PROJECT NAME : AE1-CTY 3.2.Z-PR-DOCK-DES-ODC - 60693795-1719206

AECOM

605 3rd Avenue

29th Floor

New York, NY - 10158

Phone No: 212-973-2900

ORDER ID : Q3363

ATTENTION : Rob Forstner



Laboratory Certification ID # 20012



1) VOLATILES DATA	2
2) Signature Page	4
3) Case Narrative	5
4) Qualifier Page	7
5) Conformance/Non Conformance	8
6) QA Checklist	10
7) Chronicle	11
8) Hit Summary	12
9) QC Data Summary For VOC-TCLVOA-10	14
9.1) Deuterated Monitoring Compound Summary	15
9.2) LCS/LCSD Summary	16
9.3) Method Blank Summary	22
9.4) GS/MS Tune Summary	24
9.5) Internal Standard Area and RT Summary	28
10) Sample Data	32
10.1) PR132-SO1-085011-20251015	33
10.2) PR132-SO1-039085-20251015	56
10.3) PR132-SO3-028010-20251015	76
10.4) PR132-SO3-010013-20251015	100
10.5) COMP01-20251015	118
11) Calibration Data Summary	132
11.1) Initial Calibration Data	133
11.1.1) VW100125	133
11.1.2) VY100725	172
11.2) Continued Calibration Data	210
11.2.1) VW032378.D	210
11.2.2) VY023481.D	222
12) QC Sample Data	234
12.1) Tune Raw Data	235
12.2) Method Blank Data	239
12.3) LCS Data	263
12.4) LCSD Data	275
13) Manual Integration	281
14) Analytical Runlogs	286
15) Percent Solid	296

Table Of Contents for Q3363

16) Standard Prep Logs	300
17) VOC Preservation Log	384
18) Shipping Document	385
18.1) Chain Of Custody	386
18.2) Lab Certificate	387
18.3) Internal COC	388

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Cover Page

Order ID : Q3363

Project ID : AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206

Client : AECOM

Lab Sample Number

Q3363-01
Q3363-02
Q3363-03
Q3363-04
Q3363-05

Client Sample Number

PR132-SO1-085011-20251015
PR132-SO1-039085-20251015
PR132-SO3-028010-20251015
PR132-SO3-010013-20251015
COMP01-20251015

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

Signature :

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 9:22 am, Oct 30, 2025

Date: 10/28/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

AECOM

Project Name: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206

Project # N/A

Order ID # Q3363

Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

5 Solid samples were received on 10/15/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_W were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868. The analysis performed on instrument MSVOA_Y were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868. The analysis of VOC-TCLVOA-10 was based on method 8260D.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Internal Standards Areas were met for all analysis.

The Retention Times were met for all analysis.

The RPD for {VY1016SBSD01} with File ID: VY023484.D met criteria except for 2-Butanone[31%], 2-Hexanone[27%], 4-Methyl-2-Pentanone[30%], Acetone[31%] and Methyl Acetate[21%] due to difference in results of BS and BSD.

The Blank Spike met requirements for all compounds.

The Blank Spike Duplicate met requirements for all compounds.

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

The %RSD is greater than 20% in the Initial Calibration method (82W100125S.M) for Methylene chloride passing on Linear regression.

The Continuous Calibration File ID VW032378.D met the requirements except for Bromoform and Dibromochloromethane are failing high but no positive hit in associate sample therefore no corrective action taken.

The Tuning criteria met requirements.

E. Additional Comments:

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

The Sample #PR132-SO1-085011-2025101, PR132-SO3-028010-2025101 and PR132-SO3-010013-202510 have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

Trip Blank was not provided with this set of samples.

The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:

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

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

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 9:22 am, Oct 30, 2025

Signature_____

DATA REPORTING QUALIFIERS- ORGANIC

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

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
E	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q3363

MATRIX: Solid

METHOD: 8260D

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2.	GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4.	GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5.	GC/MS Calibration Requirements. The %RSD is greater than 20% in the Initial Calibration method (82W100125S.M) for Methylene chloride passing on Linear regression. The Continuous Calibration File ID VW032378.D met the requirements except for Bromoform and Dibromochloromethane are failing high but no positive hit in associate sample therefore no corrective action taken.			✓
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7.	Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range. The RPD for {VY1016SBSD01} with File ID: VY023484.D met criteria except for 2- Butanone[31%], 2-Hexanone[27%], 4-Methyl-2-Pentanone[30%], Acetone[31%] and Methyl Acetate[21%] due to difference in results of BS and BSD.		✓	
9.	Internal Standard Area/Retention Time Shift Meet Criteria Comments:			✓
10.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:			✓

ADDITIONAL COMMENTS:

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

The Sample #PR132-SO1-085011-2025101, PR132-SO3-028010-2025101 and PR132-SO3-010013-202510 have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

Trip Blank was not provided with this set of samples.

The soil samples results are based on a dry weight basis.

REVIEWED

By Sohil Jodhani, QA/QC Director at 2:24 pm, Oct 29, 2025

QA REVIEW

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q3363

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: MAHESH PATEL

Date: 10/28/2025

LAB CHRONICLE

OrderID:	Q3363	OrderDate:	10/16/2025 10:56:42 AM
Client:	AECOM	Project:	AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
Contact:	Rob Forstner	Location:	D31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3363-01	PR132-SO1-085011-2 0251015	SOIL	VOC-TCLVOA-10	8260D	10/15/25		10/16/25	10/15/25
Q3363-02	PR132-SO1-039085-2 0251015	SOIL	VOC-TCLVOA-10	8260D	10/15/25		10/16/25	10/15/25
Q3363-03	PR132-SO3-028010-2 0251015	SOIL	VOC-TCLVOA-10	8260D	10/15/25		10/16/25	10/15/25
Q3363-04	PR132-SO3-010013-2 0251015	SOIL	VOC-TCLVOA-10	8260D	10/15/25		10/16/25	10/15/25
Q3363-05	COMP01-20251015	SOIL	VOC-TCLVOA-10	8260D	10/15/25		10/20/25	10/15/25

Hit Summary Sheet SW-846

SDG No.: Q3363
Client: AECOM

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID: PR132-SO1-085011-20251015								
Q3363-01	PR132-SO1-085011 SOIL		Acetone	110		8.50	45.0	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		Carbon Disulfide	3.50	J	1.90	9.00	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		2-Butanone	34.6	J	11.8	45.0	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		Methylcyclohexane	49.9		1.60	9.00	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		Isopropylbenzene	2.60	J	1.40	9.00	ug/Kg
			Total Voc :		201			
Q3363-01	PR132-SO1-085011 SOIL		Naphthalene, decahydro-	* 130	J	0	0	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		Octane, 2,6-dimethyl-	* 200	J	0	0	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		Naphthalene, decahydro-2-metl	* 170	J	0	0	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		Cyclohexane, 1,1,3-trimethyl-	* 180	J	0	0	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		Undecane, 2,6-dimethyl-	* 200	J	0	0	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		1,2,4-Trimethylbenzene	* 7.50	J	1.20	9.00	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		sec-Butylbenzene	* 2.90	J	1.20	9.00	ug/Kg
Q3363-01	PR132-SO1-085011 SOIL		p-Isopropyltoluene	* 5.90	J	1.10	9.00	ug/Kg
			Total Tics :		896			
			Total Concentration:		1100			
Client ID: PR132-SO1-039085-20251015								
Q3363-02	PR132-SO1-039085 SOIL		Acetone	120		10.1	53.2	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		Carbon Disulfide	4.90	J	2.30	10.6	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		Methylene Chloride	9.20	J	7.50	21.3	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		2-Butanone	37.7	J	13.9	53.2	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		Methylcyclohexane	12.5		1.90	10.6	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		o-Xylene	5.20	J	1.70	10.6	ug/Kg
			Total Voc :		190			
Q3363-02	PR132-SO1-039085 SOIL		Naphthalene, decahydro-	* 91.9	J	0	0	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		3-Heptene, 2,2,4,6,6-pentameth	* 110	J	0	0	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		Dodecane, 2,6,10-trimethyl-	* 82.3	J	0	0	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		1,3,5-Trimethylbenzene	* 5.80	J	1.70	10.6	ug/Kg
Q3363-02	PR132-SO1-039085 SOIL		1,2,4-Trimethylbenzene	* 6.00	J	1.40	10.6	ug/Kg
			Total Tics :		296			
			Total Concentration:		486			
Client ID: PR132-SO3-028010-20251015								
Q3363-03	PR132-SO3-028010 SOIL		Acetone	110		12.0	63.4	ug/Kg
Q3363-03	PR132-SO3-028010 SOIL		Carbon Disulfide	6.50	J	2.70	12.7	ug/Kg
Q3363-03	PR132-SO3-028010 SOIL		2-Butanone	37.1	J	16.6	63.4	ug/Kg
Q3363-03	PR132-SO3-028010 SOIL		Methylcyclohexane	79.7		2.30	12.7	ug/Kg

Hit Summary Sheet SW-846

SDG No.: Q3363

Client: AECOM

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q3363-03	PR132-SO3-028010	SOIL	Benzene	4.40	J	2.00	12.7	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	m/p-Xylenes	5.30	J	3.10	25.3	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	o-Xylene	12.0	J	2.10	12.7	ug/Kg
Total Voc :				255				
Q3363-03	PR132-SO3-028010	SOIL	Naphthalene, decahydro-	* 150	J	0	0	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	3-Heptene, 2,2,4,6,6-pentameth	* 240	J	0	0	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	Heptane, 2,2,6,6-tetramethyl-4-	* 250	J	0	0	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	Octane, 2,6-dimethyl-	* 150	J	0	0	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	Octane, 3,6-dimethyl-	* 170	J	0	0	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	Undecane, 2,6-dimethyl-	* 160	J	0	0	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	1,3,5-Trimethylbenzene	* 12.3	J	2.10	12.7	ug/Kg
Q3363-03	PR132-SO3-028010	SOIL	1,2,4-Trimethylbenzene	* 14.2	J	1.60	12.7	ug/Kg
Total Tics :				1150				
Total Concentration:				1400				
Client ID:	PR132-SO3-010013-20251015							
Q3363-04	PR132-SO3-010013	SOIL	Acetone	110		10.3	54.3	ug/Kg
Q3363-04	PR132-SO3-010013	SOIL	Carbon Disulfide	4.90	J	2.30	10.9	ug/Kg
Q3363-04	PR132-SO3-010013	SOIL	2-Butanone	34.5	J	14.2	54.3	ug/Kg
Q3363-04	PR132-SO3-010013	SOIL	Methylcyclohexane	30.9		2.00	10.9	ug/Kg
Total Voc :				180				
Q3363-04	PR132-SO3-010013	SOIL	Naphthalene, decahydro-	* 120	J	0	0	ug/Kg
Q3363-04	PR132-SO3-010013	SOIL	Undecane, 2,6-dimethyl-	* 120	J	0	0	ug/Kg
Total Tics :				240				
Total Concentration:				420				
Client ID:	COMP01-20251015							
Q3363-05	COMP01-20251015	SOIL	Acetone	210		8.00	42.4	ug/Kg
Q3363-05	COMP01-20251015	SOIL	Carbon Disulfide	3.40	J	1.80	8.50	ug/Kg
Q3363-05	COMP01-20251015	SOIL	2-Butanone	53.2		11.1	42.4	ug/Kg
Total Voc :				267				
Total Concentration:				267				



QC SUMMARY

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

Surrogate Summary

SDG No.: Q3363

Client: AECOM

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%)	
							Low	High
Q3363-01	PR132-SO1-085011-20251015	1,2-Dichloroethane-d4	50	58.1	116		63	155
		Dibromofluoromethane	50	53.3	107		70	134
		Toluene-d8	50	55.2	110		74	123
		4-Bromofluorobenzene	50	51.2	102		17	146
Q3363-02	PR132-SO1-039085-20251015	1,2-Dichloroethane-d4	50	62.0	124		63	155
		Dibromofluoromethane	50	53.3	107		70	134
		Toluene-d8	50	51.7	103		74	123
		4-Bromofluorobenzene	50	52.7	105		17	146
Q3363-03	PR132-SO3-028010-20251015	1,2-Dichloroethane-d4	50	62.0	124		63	155
		Dibromofluoromethane	50	53.7	107		70	134
		Toluene-d8	50	54.6	109		74	123
		4-Bromofluorobenzene	50	59.9	120		17	146
Q3363-04	PR132-SO3-010013-20251015	1,2-Dichloroethane-d4	50	61.0	122		63	155
		Dibromofluoromethane	50	53.4	107		70	134
		Toluene-d8	50	53.5	107		74	123
		4-Bromofluorobenzene	50	55.6	111		17	146
Q3363-05	COMP01-20251015	1,2-Dichloroethane-d4	50	66.7	133		63	155
		Dibromofluoromethane	50	57.1	114		70	134
		Toluene-d8	50	52.0	104		74	123
		4-Bromofluorobenzene	50	53.8	108		17	146
VW1020SBL01	VW1020SBL01	1,2-Dichloroethane-d4	50	65.7	131		63	155
		Dibromofluoromethane	50	58.2	116		70	134
		Toluene-d8	50	54.5	109		74	123
		4-Bromofluorobenzene	50	51.8	104		17	146
VW1020SBS01	VW1020SBS01	1,2-Dichloroethane-d4	50	52.1	104		63	155
		Dibromofluoromethane	50	53.3	107		70	134
		Toluene-d8	50	53.0	106		74	123
		4-Bromofluorobenzene	50	51.7	103		17	146
VY1016SBL01	VY1016SBL01	1,2-Dichloroethane-d4	50	63.0	126		63	155
		Dibromofluoromethane	50	55.0	110		70	134
		Toluene-d8	50	53.4	107		74	123
		4-Bromofluorobenzene	50	53.5	107		17	146
VY1016SBS01	VY1016SBS01	1,2-Dichloroethane-d4	50	50.2	100		63	155
		Dibromofluoromethane	50	52.3	105		70	134
		Toluene-d8	50	52.0	104		74	123
		4-Bromofluorobenzene	50	51.1	102		17	146
VY1016SBSD01	VY1016SBSD01	1,2-Dichloroethane-d4	50	44.6	89		63	155
		Dibromofluoromethane	50	47.6	95		70	134
		Toluene-d8	50	48.2	96		74	123
		4-Bromofluorobenzene	50	45.5	91		17	146

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SDG No.:	Q3363	SW-846	Analytical Method:	SW8260D
Client:	AECOM		Datafile :	VW032380.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VW1020SBS01	Dichlorodifluoromethane	20	19.9	ug/Kg	100			64	136	
	Chloromethane	20	20.1	ug/Kg	101			52	151	
	Vinyl chloride	20	22.1	ug/Kg	111			56	148	
	Bromomethane	20	21.1	ug/Kg	106			58	141	
	Chloroethane	20	21.4	ug/Kg	107			69	130	
	Trichlorofluoromethane	20	19.4	ug/Kg	97			69	134	
	1,1,2-Trichlorotrifluoroethane	20	20.9	ug/Kg	104			81	123	
	1,1-Dichloroethene	20	21.7	ug/Kg	109			79	121	
	Acetone	100	97.1	ug/Kg	97			40	171	
	Carbon disulfide	20	21.1	ug/Kg	106			59	130	
	Methyl tert-butyl Ether	20	19.0	ug/Kg	95			77	129	
	Methyl Acetate	20	17.5	ug/Kg	88			69	149	
	Methylene Chloride	20	19.0	ug/Kg	95			72	131	
	trans-1,2-Dichloroethene	20	21.0	ug/Kg	105			80	123	
	1,1-Dichloroethane	20	20.8	ug/Kg	104			82	123	
	Cyclohexane	20	19.2	ug/Kg	96			76	122	
	2-Butanone	100	87.6	ug/Kg	88			69	131	
	Carbon Tetrachloride	20	22.0	ug/Kg	110			76	129	
	cis-1,2-Dichloroethene	20	20.3	ug/Kg	102			82	123	
	Bromochloromethane	20	20.8	ug/Kg	104			80	127	
	Chloroform	20	21.5	ug/Kg	108			82	125	
	1,1,1-Trichloroethane	20	21.5	ug/Kg	108			80	126	
	Methylcyclohexane	20	19.3	ug/Kg	97			77	123	
	Benzene	20	20.9	ug/Kg	104			84	121	
	1,2-Dichloroethane	20	20.6	ug/Kg	103			81	126	
	Trichloroethene	20	20.3	ug/Kg	102			83	122	
	1,2-Dichloropropane	20	21.0	ug/Kg	105			83	122	
	Bromodichloromethane	20	22.0	ug/Kg	110			82	123	
	4-Methyl-2-Pentanone	100	92.3	ug/Kg	92			70	135	
	Toluene	20	20.8	ug/Kg	104			83	122	
	t-1,3-Dichloropropene	20	20.2	ug/Kg	101			78	124	
	cis-1,3-Dichloropropene	20	20.7	ug/Kg	104			81	122	
	1,1,2-Trichloroethane	20	20.7	ug/Kg	104			82	125	
	2-Hexanone	100	92.8	ug/Kg	93			66	138	
	Dibromochloromethane	20	21.7	ug/Kg	109			79	125	
	1,2-Dibromoethane	20	20.3	ug/Kg	102			80	125	
	Tetrachloroethene	20	20.1	ug/Kg	101			83	125	
	Chlorobenzene	20	20.2	ug/Kg	101			84	122	
	Ethyl Benzene	20	20.5	ug/Kg	103			82	124	
	m/p-Xylenes	40	41.2	ug/Kg	103			83	124	
	o-Xylene	20	19.8	ug/Kg	99			83	123	
	Styrene	20	21.1	ug/Kg	106			82	124	
	Bromoform	20	21.5	ug/Kg	108			75	127	
	Isopropylbenzene	20	19.8	ug/Kg	99			82	124	
	1,1,2,2-Tetrachloroethane	20	18.9	ug/Kg	95			77	127	
	1,3-Dichlorobenzene	20	20.4	ug/Kg	102			83	122	
	1,4-Dichlorobenzene	20	20.3	ug/Kg	102			84	121	
	1,2-Dichlorobenzene	20	20.0	ug/Kg	100			83	124	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q3363</u>	Analytical Method:	<u>SW8260D</u>
Client:	<u>AECOM</u>	Datafile :	<u>VW032380.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VW1020SBS01	1,2-Dibromo-3-Chloropropane	20	18.4	ug/Kg	92			66	134	
	1,2,4-Trichlorobenzene	20	19.2	ug/Kg	96			78	127	
	1,2,3-Trichlorobenzene	20	19.0	ug/Kg	95			70	137	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SDG No.:	Q3363	SW-846	Analytical Method:	SW8260D
Client:	AECOM		Datafile :	VY023483.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY1016SBS01	Dichlorodifluoromethane	20	21.5	ug/Kg	108			64	136	
	Chloromethane	20	19.9	ug/Kg	100			52	151	
	Vinyl chloride	20	20.1	ug/Kg	101			56	148	
	Bromomethane	20	22.5	ug/Kg	113			58	141	
	Chloroethane	20	21.3	ug/Kg	106			69	130	
	Trichlorofluoromethane	20	21.1	ug/Kg	106			69	134	
	1,1,2-Trichlorotrifluoroethane	20	22.2	ug/Kg	111			81	123	
	1,1-Dichloroethene	20	20.6	ug/Kg	103			79	121	
	Acetone	100	150	ug/Kg	150			40	171	
	Carbon disulfide	20	20.7	ug/Kg	104			59	130	
	Methyl tert-butyl Ether	20	20.2	ug/Kg	101			77	129	
	Methyl Acetate	20	18.9	ug/Kg	95			69	149	
	Methylene Chloride	20	20.2	ug/Kg	101			72	131	
	trans-1,2-Dichloroethene	20	21.1	ug/Kg	106			80	123	
	1,1-Dichloroethane	20	21.2	ug/Kg	106			82	123	
	Cyclohexane	20	19.6	ug/Kg	98			76	122	
	2-Butanone	100	130	ug/Kg	130			69	131	
	Carbon Tetrachloride	20	21.8	ug/Kg	109			76	129	
	cis-1,2-Dichloroethene	20	20.8	ug/Kg	104			82	123	
	Bromochloromethane	20	21.6	ug/Kg	108			80	127	
	Chloroform	20	21.6	ug/Kg	108			82	125	
	1,1,1-Trichloroethane	20	21.3	ug/Kg	106			80	126	
	Methylcyclohexane	20	20.0	ug/Kg	100			77	123	
	Benzene	20	21.5	ug/Kg	108			84	121	
	1,2-Dichloroethane	20	21.3	ug/Kg	106			81	126	
	Trichloroethene	20	21.4	ug/Kg	107			83	122	
	1,2-Dichloropropane	20	21.4	ug/Kg	107			83	122	
	Bromodichloromethane	20	21.9	ug/Kg	110			82	123	
	4-Methyl-2-Pentanone	100	110	ug/Kg	110			70	135	
	Toluene	20	21.7	ug/Kg	109			83	122	
	t-1,3-Dichloropropene	20	20.9	ug/Kg	104			78	124	
	cis-1,3-Dichloropropene	20	21.3	ug/Kg	106			81	122	
	1,1,2-Trichloroethane	20	22.1	ug/Kg	111			82	125	
	2-Hexanone	100	120	ug/Kg	120			66	138	
	Dibromochloromethane	20	22.0	ug/Kg	110			79	125	
	1,2-Dibromoethane	20	21.5	ug/Kg	108			80	125	
	Tetrachloroethene	20	22.2	ug/Kg	111			83	125	
	Chlorobenzene	20	21.0	ug/Kg	105			84	122	
	Ethyl Benzene	20	20.4	ug/Kg	102			82	124	
	m/p-Xylenes	40	42.1	ug/Kg	105			83	124	
	o-Xylene	20	20.4	ug/Kg	102			83	123	
	Styrene	20	21.0	ug/Kg	105			82	124	
	Bromoform	20	21.7	ug/Kg	109			75	127	
	Isopropylbenzene	20	19.6	ug/Kg	98			82	124	
	1,1,2,2-Tetrachloroethane	20	20.4	ug/Kg	102			77	127	
	1,3-Dichlorobenzene	20	20.2	ug/Kg	101			83	122	
	1,4-Dichlorobenzene	20	20.2	ug/Kg	101			84	121	
	1,2-Dichlorobenzene	20	20.3	ug/Kg	102			83	124	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q3363</u>	Analytical Method:	<u>SW8260D</u>
Client:	<u>AECOM</u>	Datafile :	<u>VY023483.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VY1016SBS01	1,2-Dibromo-3-Chloropropane	20	20.5	ug/Kg	103			66	134	
	1,2,4-Trichlorobenzene	20	19.0	ug/Kg	95			78	127	
	1,2,3-Trichlorobenzene	20	18.5	ug/Kg	93			70	137	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SDG No.:	Q3363	SW-846	Analytical Method:	SW8260D
Client:	AECOM		Datafile :	VY023484.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY1016SBSD01	Dichlorodifluoromethane	20	21.5	ug/Kg	108	0		64	136	20
	Chloromethane	20	20.3	ug/Kg	102	2		52	151	20
	Vinyl chloride	20	21.2	ug/Kg	106	5		56	148	20
	Bromomethane	20	21.6	ug/Kg	108	5		58	141	20
	Chloroethane	20	21.5	ug/Kg	108	2		69	130	20
	Trichlorofluoromethane	20	20.4	ug/Kg	102	4		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	21.5	ug/Kg	108	3		81	123	20
	1,1-Dichloroethene	20	20.8	ug/Kg	104	1		79	121	20
	Acetone	100	110	ug/Kg	110	31	*	40	171	20
	Carbon disulfide	20	20.9	ug/Kg	104	0		59	130	20
	Methyl tert-butyl Ether	20	17.4	ug/Kg	87	15		77	129	20
	Methyl Acetate	20	15.3	ug/Kg	77	21	*	69	149	20
	Methylene Chloride	20	19.1	ug/Kg	96	5		72	131	20
	trans-1,2-Dichloroethene	20	21.1	ug/Kg	106	0		80	123	20
	1,1-Dichloroethane	20	20.9	ug/Kg	104	2		82	123	20
	Cyclohexane	20	19.6	ug/Kg	98	0		76	122	20
	2-Butanone	100	94.8	ug/Kg	95	31	*	69	131	20
	Carbon Tetrachloride	20	21.9	ug/Kg	110	1		76	129	20
	cis-1,2-Dichloroethene	20	20.6	ug/Kg	103	1		82	123	20
	Bromochloromethane	20	19.9	ug/Kg	100	8		80	127	20
	Chloroform	20	21.0	ug/Kg	105	3		82	125	20
	1,1,1-Trichloroethane	20	21.5	ug/Kg	108	2		80	126	20
	Methylcyclohexane	20	19.8	ug/Kg	99	1		77	123	20
	Benzene	20	21.5	ug/Kg	108	0		84	121	20
	1,2-Dichloroethane	20	19.9	ug/Kg	100	6		81	126	20
	Trichloroethene	20	21.2	ug/Kg	106	1		83	122	20
	1,2-Dichloropropane	20	21.0	ug/Kg	105	2		83	122	20
	Bromodichloromethane	20	21.2	ug/Kg	106	4		82	123	20
	4-Methyl-2-Pentanone	100	81.3	ug/Kg	81	30	*	70	135	20
	Toluene	20	21.3	ug/Kg	106	3		83	122	20
	t-1,3-Dichloropropene	20	19.3	ug/Kg	97	7		78	124	20
	cis-1,3-Dichloropropene	20	20.3	ug/Kg	102	4		81	122	20
	1,1,2-Trichloroethane	20	19.8	ug/Kg	99	11		82	125	20
	2-Hexanone	100	90.6	ug/Kg	91	27	*	66	138	20
	Dibromochloromethane	20	20.2	ug/Kg	101	9		79	125	20
	1,2-Dibromoethane	20	19.0	ug/Kg	95	13		80	125	20
	Tetrachloroethene	20	21.4	ug/Kg	107	4		83	125	20
	Chlorobenzene	20	21.1	ug/Kg	106	1		84	122	20
	Ethyl Benzene	20	20.8	ug/Kg	104	2		82	124	20
	m/p-Xylenes	40	43.1	ug/Kg	108	3		83	124	20
	o-Xylene	20	20.5	ug/Kg	103	1		83	123	20
	Styrene	20	21.1	ug/Kg	106	1		82	124	20
	Bromoform	20	19.5	ug/Kg	98	11		75	127	20
	Isopropylbenzene	20	20.9	ug/Kg	104	6		82	124	20
	1,1,2,2-Tetrachloroethane	20	18.6	ug/Kg	93	9		77	127	20
	1,3-Dichlorobenzene	20	21.0	ug/Kg	105	4		83	122	20
	1,4-Dichlorobenzene	20	21.0	ug/Kg	105	4		84	121	20
	1,2-Dichlorobenzene	20	20.5	ug/Kg	103	1		83	124	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q3363</u>	Analytical Method:	<u>SW8260D</u>
Client:	<u>AECOM</u>	Datafile :	<u>VY023484.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY1016SBSD01	1,2-Dibromo-3-Chloropropane	20	17.1	ug/Kg	86	18		66	134	20
	1,2,4-Trichlorobenzene	20	18.3	ug/Kg	92	3		78	127	20
	1,2,3-Trichlorobenzene	20	17.9	ug/Kg	90	3		70	137	20

VOLATILE METHOD BLANK SUMMARY

Client ID

VW1020SBL01

Lab Name: Alliance

Contract: AECO02

Lab Code: ACE

SDG NO.: Q3363

Lab File ID: VW032379.D

Lab Sample ID: VW1020SBL01

Date Analyzed: 10/20/2025

Time Analyzed: 11:11

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

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_W

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VW1020SBS01	VW1020SBS01	VW032380.D	10/20/2025
COMP01-20251015	Q3363-05	VW032382.D	10/20/2025

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

Client ID

VY1016SBL01

Lab Name: Alliance

Contract: AECO02

Lab Code: ACE

SDG NO.: Q3363

Lab File ID: VY023482.D

Lab Sample ID: VY1016SBL01

Date Analyzed: 10/16/2025

Time Analyzed: 09:46

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

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY1016SBS01	VY1016SBS01	VY023483.D	10/16/2025
VY1016SBSD01	VY1016SBSD01	VY023484.D	10/16/2025
PR132-SO1-085011-20251015	Q3363-01	VY023486.D	10/16/2025
PR132-SO1-039085-20251015	Q3363-02	VY023487.D	10/16/2025
PR132-SO3-028010-20251015	Q3363-03	VY023488.D	10/16/2025
PR132-SO3-010013-20251015	Q3363-04	VY023489.D	10/16/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)
Lab Name: AllianceContract: AECO02Lab Code: ACESDG NO.: Q3363Lab File ID: VW032312.DBFB Injection Date: 10/01/2025Instrument ID: MSVOA_WBFB Injection Time: 08:12GC Column: RXI-624 ID: 0.25 (mm)Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.3
75	30.0 - 60.0% of mass 95	51.1
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	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	66.2
175	5.0 - 9.0% of mass 174	5.3 (8) 1
176	95.0 - 101.0% of mass 174	63.3 (95.6) 1
177	5.0 - 9.0% of mass 176	4.2 (6.6) 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	VW032313.D	10/01/2025	13:12
VSTDIC010	VSTDIC010	VW032314.D	10/01/2025	13:34
VSTDIC020	VSTDIC020	VW032315.D	10/01/2025	14:15
VSTDIC050	VSTDIC050	VW032316.D	10/01/2025	14:37
VSTDIC100	VSTDIC100	VW032317.D	10/01/2025	14:59
VSTDIC150	VSTDIC150	VW032318.D	10/01/2025	15:20



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

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: Alliance

Contract: AECO02

Lab Code: ACE

SDG NO.: Q3363

Lab File ID: VW032377.D

BFB Injection Date: 10/20/2025

Instrument ID: MSVOA_W

BFB Injection Time: 09:36

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

Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.6
75	30.0 - 60.0% of mass 95	51.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.3 (0.5) 1
174	50.0 - 100.0% of mass 95	66.2
175	5.0 - 9.0% of mass 174	5.2 (7.8) 1
176	95.0 - 101.0% of mass 174	63.7 (96.2) 1
177	5.0 - 9.0% of mass 176	4.5 (7) 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
VSTDCCC050	VSTDCCC050	VW032378.D	10/20/2025	10:20
VW1020SBL01	VW1020SBL01	VW032379.D	10/20/2025	11:11
VW1020SBS01	VW1020SBS01	VW032380.D	10/20/2025	11:41
COMP01-20251015	Q3363-05	VW032382.D	10/20/2025	12:44

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
 BROMOFLUOROBENZENE (BFB)
Lab Name: AllianceContract: AECO02Lab Code: ACESDG NO.: Q3363Lab File ID: VY023383.DBFB Injection Date: 10/07/2025Instrument ID: MSVOA_YBFB Injection Time: 08:43GC Column: RXI-624 ID: 0.25 (mm)Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.9
75	30.0 - 60.0% of mass 95	48.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.9 (0.9) 1
174	50.0 - 100.0% of mass 95	99.1
175	5.0 - 9.0% of mass 174	7.3 (7.4) 1
176	95.0 - 101.0% of mass 174	95.4 (96.2) 1
177	5.0 - 9.0% of mass 176	6.3 (6.6) 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	VY023384.D	10/07/2025	09:17
VSTDIC010	VSTDIC010	VY023385.D	10/07/2025	10:02
VSTDIC020	VSTDIC020	VY023386.D	10/07/2025	11:24
VSTDIC050	VSTDIC050	VY023387.D	10/07/2025	11:47
VSTDIC100	VSTDIC100	VY023388.D	10/07/2025	12:09
VSTDIC150	VSTDIC150	VY023389.D	10/07/2025	12:32

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
 BROMOFLUOROBENZENE (BFB)
Lab Name: AllianceContract: AECO02Lab Code: ACESDG NO.: Q3363Lab File ID: VY023480.DBFB Injection Date: 10/16/2025Instrument ID: MSVOA_YBFB Injection Time: 08:42GC Column: RXI-624 ID: 0.25 (mm)Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.3
75	30.0 - 60.0% of mass 95	49.5
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	1.1 (1.2) 1
174	50.0 - 100.0% of mass 95	93.5
175	5.0 - 9.0% of mass 174	7 (7.5) 1
176	95.0 - 101.0% of mass 174	90 (96.3) 1
177	5.0 - 9.0% of mass 176	6.2 (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
VSTDCCC050	VSTDCCC050	VY023481.D	10/16/2025	09:12
VY1016SBL01	VY1016SBL01	VY023482.D	10/16/2025	09:46
VY1016SBS01	VY1016SBS01	VY023483.D	10/16/2025	10:17
VY1016SBSD01	VY1016SBSD01	VY023484.D	10/16/2025	10:40
PR132-S01-085011-20251015	Q3363-01	VY023486.D	10/16/2025	12:57
PR132-S01-039085-20251015	Q3363-02	VY023487.D	10/16/2025	13:27
PR132-S03-028010-20251015	Q3363-03	VY023488.D	10/16/2025	13:51
PR132-S03-010013-20251015	Q3363-04	VY023489.D	10/16/2025	14:14

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: AECO02
Lab Code: ACE SDG NO.: Q3363
Lab File ID: VW032378.D Date Analyzed: 10/20/2025
Instrument ID: MSVOA_W Time Analyzed: 10:20
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	276051	7.97	500417	8.86	466876	11.63
UPPER LIMIT	552102	8.465	1000830	9.355	933752	12.129
LOWER LIMIT	138026	7.465	250209	8.355	233438	11.129
EPA SAMPLE NO.						
COMP01-20251015	173392	7.96	385425	8.85	401644	11.63
VW1020SBL01	172114	7.96	392797	8.85	400571	11.63
VW1020SBS01	280998	7.96	517149	8.85	480746	11.63

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: AECO02
 Lab Code: ACE SDG NO.: Q3363
 Lab File ID: VW032378.D Date Analyzed: 10/20/2025
 Instrument ID: MSVOA_W Time Analyzed: 10:20
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	234766	13.556				
UPPER LIMIT	469532	14.056				
LOWER LIMIT	117383	13.056				
EPA SAMPLE NO.						
COMP01-20251015	188999	13.56				
VW1020SBL01	188560	13.56				
VW1020SBS01	240746	13.56				

IS4 = 1,4-Dichlorobenzene-d4

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: AECO02
Lab Code: ACE SDG NO.: Q3363
Lab File ID: VY023481.D Date Analyzed: 10/16/2025
Instrument ID: MSVOA_Y Time Analyzed: 09:12
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	504198	7.71	703605	8.62	622685	11.42
UPPER LIMIT	1008400	8.213	1407210	9.121	1245370	11.92
LOWER LIMIT	252099	7.213	351803	8.121	311343	10.92
EPA SAMPLE NO.						
PR132-SO1-085011-20251015	607130	7.72	1157199	8.62	1063112	11.42
PR132-SO1-039085-20251015	585385	7.71	1153355	8.62	1121069	11.42
PR132-SO3-028010-20251015	618759	7.71	1206292	8.62	1183423	11.42
PR132-SO3-010013-20251015	632583	7.71	1213308	8.62	1199753	11.42
VY1016SBL01	529968	7.71	1064919	8.62	1102445	11.42
VY1016SBS01	512746	7.71	747160	8.62	665790	11.42
VY1016SBSD01	502001	7.71	735573	8.62	641486	11.42

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: AECO02
 Lab Code: ACE SDG NO.: Q3363
 Lab File ID: VY023481.D Date Analyzed: 10/16/2025
 Instrument ID: MSVOA_Y Time Analyzed: 09:12
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	326705	13.346				
UPPER LIMIT	653410	13.846				
LOWER LIMIT	163353	12.846				
EPA SAMPLE NO.						
PR132-S01-085011-20251015	376450	13.35				
PR132-S01-039085-20251015	423616	13.35				
PR132-S03-028010-20251015	475817	13.35				
PR132-S03-010013-20251015	468564	13.35				
VY1016SBL01	465964	13.35				
VY1016SBS01	360043	13.35				
VY1016SBSD01	331485	13.35				

IS4 = 1,4-Dichlorobenzene-d4

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

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



SAMPLE DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: PR132-SO1-085011-202510
 Lab Sample ID: Q3363-01
 Analytical Method: 8260D
 Sample Wt/Vol: 5.55 g

Level : LOW
 Final Vol: 5000 uL

Date Collected: 10/15/25
 Date Received: 10/15/25
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 50.1
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	9.00	U	1	2.00	9.00	ug/Kg	10/16/25 12:57	VY101625
74-87-3	Chloromethane	9.00	U	1	2.00	9.00	ug/Kg	10/16/25 12:57	VY101625
75-01-4	Vinyl Chloride	9.00	U	1	1.40	9.00	ug/Kg	10/16/25 12:57	VY101625
74-83-9	Bromomethane	9.00	U	1	1.90	9.00	ug/Kg	10/16/25 12:57	VY101625
75-00-3	Chloroethane	9.00	U	1	2.30	9.00	ug/Kg	10/16/25 12:57	VY101625
75-69-4	Trichlorofluoromethane	9.00	U	1	2.20	9.00	ug/Kg	10/16/25 12:57	VY101625
76-13-1	1,1,2-Trichlorotrifluoroethane	9.00	U	1	1.90	9.00	ug/Kg	10/16/25 12:57	VY101625
75-35-4	1,1-Dichloroethene	9.00	U	1	1.80	9.00	ug/Kg	10/16/25 12:57	VY101625
67-64-1	Acetone	110		1	8.50	45.0	ug/Kg	10/16/25 12:57	VY101625
75-15-0	Carbon Disulfide	3.50	J	1	1.90	9.00	ug/Kg	10/16/25 12:57	VY101625
1634-04-4	Methyl tert-butyl Ether	9.00	U	1	1.30	9.00	ug/Kg	10/16/25 12:57	VY101625
79-20-9	Methyl Acetate	9.00	U	1	2.80	9.00	ug/Kg	10/16/25 12:57	VY101625
75-09-2	Methylene Chloride	18.0	U	1	6.30	18.0	ug/Kg	10/16/25 12:57	VY101625
156-60-5	trans-1,2-Dichloroethene	9.00	U	1	1.50	9.00	ug/Kg	10/16/25 12:57	VY101625
75-34-3	1,1-Dichloroethane	9.00	U	1	1.40	9.00	ug/Kg	10/16/25 12:57	VY101625
110-82-7	Cyclohexane	9.00	U	1	1.40	9.00	ug/Kg	10/16/25 12:57	VY101625
78-93-3	2-Butanone	34.6	J	1	11.8	45.0	ug/Kg	10/16/25 12:57	VY101625
56-23-5	Carbon Tetrachloride	9.00	U	1	1.70	9.00	ug/Kg	10/16/25 12:57	VY101625
156-59-2	cis-1,2-Dichloroethene	9.00	U	1	1.30	9.00	ug/Kg	10/16/25 12:57	VY101625
74-97-5	Bromochloromethane	9.00	U	1	2.10	9.00	ug/Kg	10/16/25 12:57	VY101625
67-66-3	Chloroform	9.00	U	1	1.50	9.00	ug/Kg	10/16/25 12:57	VY101625
71-55-6	1,1,1-Trichloroethane	9.00	U	1	1.70	9.00	ug/Kg	10/16/25 12:57	VY101625
108-87-2	Methylcyclohexane	49.9		1	1.60	9.00	ug/Kg	10/16/25 12:57	VY101625
71-43-2	Benzene	9.00	U	1	1.40	9.00	ug/Kg	10/16/25 12:57	VY101625
107-06-2	1,2-Dichloroethane	9.00	U	1	1.40	9.00	ug/Kg	10/16/25 12:57	VY101625
79-01-6	Trichloroethene	9.00	U	1	1.50	9.00	ug/Kg	10/16/25 12:57	VY101625
78-87-5	1,2-Dichloropropane	9.00	U	1	1.60	9.00	ug/Kg	10/16/25 12:57	VY101625
75-27-4	Bromodichloromethane	9.00	U	1	1.40	9.00	ug/Kg	10/16/25 12:57	VY101625
108-10-1	4-Methyl-2-Pentanone	45.0	U	1	6.40	45.0	ug/Kg	10/16/25 12:57	VY101625
108-88-3	Toluene	9.00	U	1	1.40	9.00	ug/Kg	10/16/25 12:57	VY101625
10061-02-6	t-1,3-Dichloropropene	9.00	U	1	1.20	9.00	ug/Kg	10/16/25 12:57	VY101625
10061-01-5	cis-1,3-Dichloropropene	9.00	U	1	1.10	9.00	ug/Kg	10/16/25 12:57	VY101625
79-00-5	1,1,2-Trichloroethane	9.00	U	1	1.70	9.00	ug/Kg	10/16/25 12:57	VY101625
591-78-6	2-Hexanone	45.0	U	1	6.60	45.0	ug/Kg	10/16/25 12:57	VY101625
124-48-1	Dibromochloromethane	9.00	U	1	1.60	9.00	ug/Kg	10/16/25 12:57	VY101625
106-93-4	1,2-Dibromoethane	9.00	U	1	1.60	9.00	ug/Kg	10/16/25 12:57	VY101625
127-18-4	Tetrachloroethene	9.00	U	1	1.90	9.00	ug/Kg	10/16/25 12:57	VY101625
108-90-7	Chlorobenzene	9.00	U	1	1.60	9.00	ug/Kg	10/16/25 12:57	VY101625
100-41-4	Ethyl Benzene	9.00	U	1	1.20	9.00	ug/Kg	10/16/25 12:57	VY101625
179601-23-1	m/p-Xylenes	18.0	U	1	2.20	18.0	ug/Kg	10/16/25 12:57	VY101625
95-47-6	o-Xylene	9.00	U	1	1.50	9.00	ug/Kg	10/16/25 12:57	VY101625
100-42-5	Styrene	9.00	U	1	1.30	9.00	ug/Kg	10/16/25 12:57	VY101625
75-25-2	Bromoform	9.00	U	1	1.50	9.00	ug/Kg	10/16/25 12:57	VY101625

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: PR132-SO1-085011-202510
 Lab Sample ID: Q3363-01
 Analytical Method: 8260D
 Sample Wt/Vol: 5.55 g

Level : LOW
 Final Vol: 5000 uL

Date Collected: 10/15/25
 Date Received: 10/15/25
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 50.1
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	2.60	J	1	1.40	9.00	ug/Kg	10/16/25 12:57	VY101625
79-34-5	1,1,2,2-Tetrachloroethane	9.00	U	1	2.20	9.00	ug/Kg	10/16/25 12:57	VY101625
541-73-1	1,3-Dichlorobenzene	9.00	U	1	3.10	9.00	ug/Kg	10/16/25 12:57	VY101625
106-46-7	1,4-Dichlorobenzene	9.00	U	1	2.80	9.00	ug/Kg	10/16/25 12:57	VY101625
95-50-1	1,2-Dichlorobenzene	9.00	U	1	2.60	9.00	ug/Kg	10/16/25 12:57	VY101625
96-12-8	1,2-Dibromo-3-Chloropropane	9.00	U	1	3.30	9.00	ug/Kg	10/16/25 12:57	VY101625
120-82-1	1,2,4-Trichlorobenzene	9.00	U	1	5.30	9.00	ug/Kg	10/16/25 12:57	VY101625
87-61-6	1,2,3-Trichlorobenzene	9.00	U	1	5.70	9.00	ug/Kg	10/16/25 12:57	VY101625

SURROGATES

17060-07-0	1,2-Dichloroethane-d4	58.1			63 - 155	116%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3			70 - 134	107%	SPK: 50
2037-26-5	Toluene-d8	55.2			74 - 123	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.2			17 - 146	102%	SPK: 50

INTERNAL STANDARDS

	Area Count
363-72-4 Pentafluorobenzene	607000
540-36-3 1,4-Difluorobenzene	1160000
3114-55-4 Chlorobenzene-d5	1060000
3855-82-1 1,4-Dichlorobenzene-d4	376000

TENTATIVE IDENTIFIED COMPOUNDS

003073-66-3	Cyclohexane, 1,1,3-trimethyl-	180	J			11.0	ug/Kg
002051-30-1	Octane, 2,6-dimethyl-	200	J			12.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	7.50	J			13.0	ug/Kg
135-98-8	sec-Butylbenzene	2.90	J			13.2	ug/Kg
99-87-6	p-Isopropyltoluene	5.90	J			13.3	ug/Kg
000091-17-8	Naphthalene, decahydro-	130	J			13.7	ug/Kg
002958-76-1	Naphthalene, decahydro-2-methyl-	170	J			14.2	ug/Kg
017301-23-4	Undecane, 2,6-dimethyl-	200	J			14.7	ug/Kg

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
 Data File : VY023486.D
 Acq On : 16 Oct 2025 12:57
 Operator : SY/MD
 Sample : Q3363-01
 Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 PR132-SO1-085011-20251015

Quant Time: Oct 17 01:55:38 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration

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

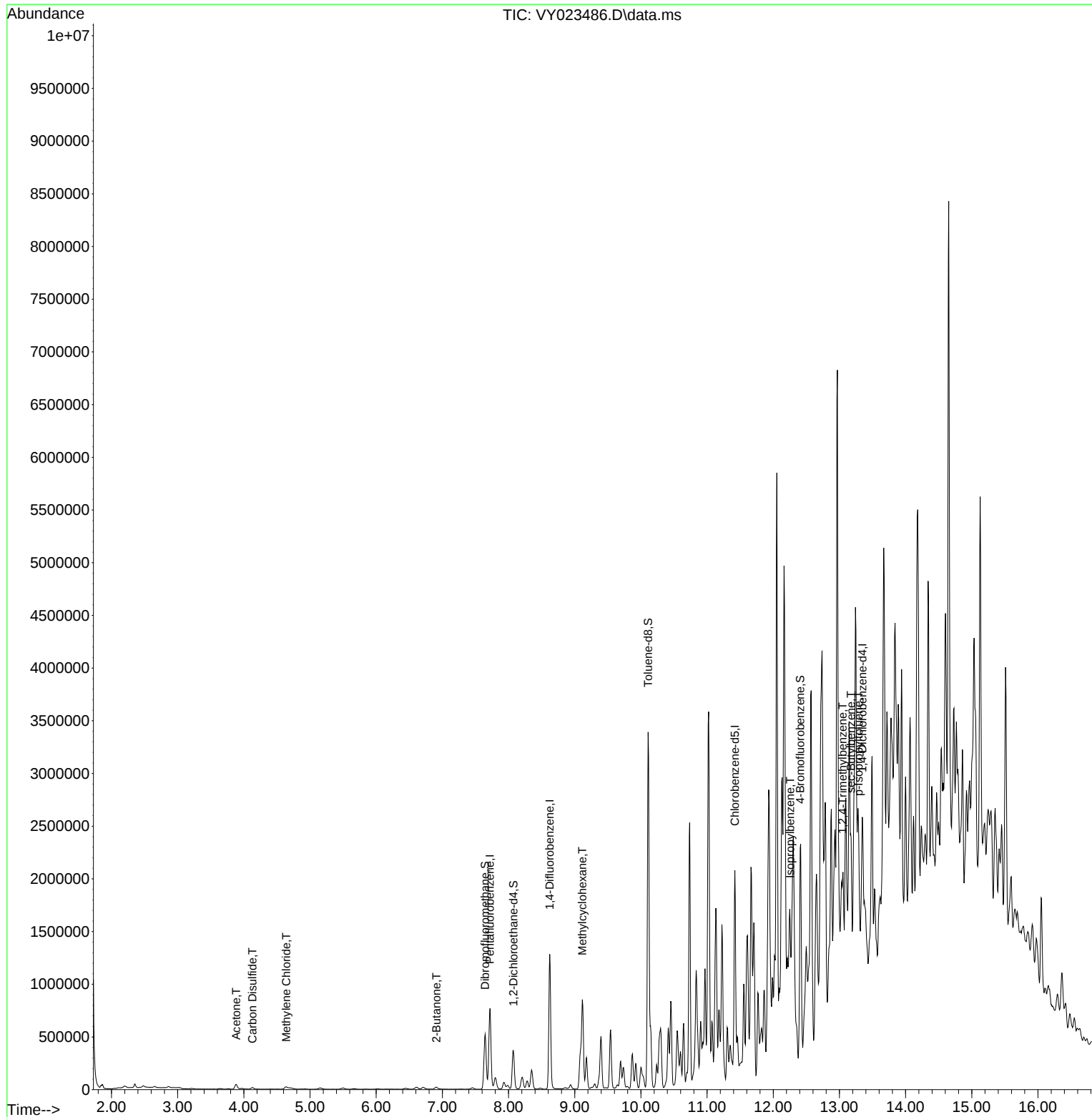
Internal Standards						
1) Pentafluorobenzene	7.719	168	607130	50.000	ug/l	0.01
34) 1,4-Difluorobenzene	8.622	114	1157199	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	1063112	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	376450	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	295066	58.119	ug/l	0.01
Spiked Amount	50.000	Range	50 - 163	Recovery	= 116.240%	
35) Dibromofluoromethane	7.646	113	379276	53.341	ug/l	0.01
Spiked Amount	50.000	Range	54 - 147	Recovery	= 106.680%	
50) Toluene-d8	10.109	98	1462096	55.215	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	= 110.440%	
62) 4-Bromofluorobenzene	12.408	95	447422	51.179	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	= 102.360%	
Target Compounds						
					Qvalue	
16) Acetone	3.885	43	76866	63.596	ug/l	97
17) Carbon Disulfide	4.129	76	29960	1.933	ug/l #	95
20) Methylene Chloride	4.641	84	15615	2.389	ug/l	96
25) 2-Butanone	6.909	43	28408	19.252	ug/l	91
39) Methylcyclohexane	9.115	83	340108	27.749	ug/l	94
73) Isopropylbenzene	12.255	105	35296	1.423	ug/l	96
84) 1,2,4-Trimethylbenzene	13.048	105	83529	4.175	ug/l	97
85) sec-Butylbenzene	13.176	105	42860	1.614	ug/l #	75
86) p-Isopropyltoluene	13.291	119	73852	3.267	ug/l	94

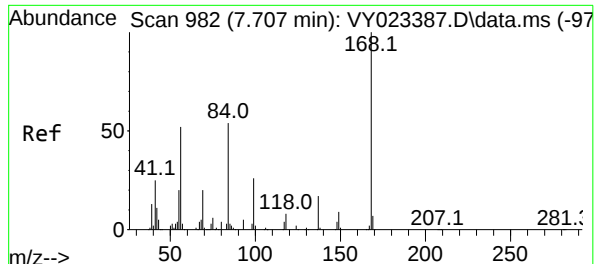
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Quant Time: Oct 17 01:55:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

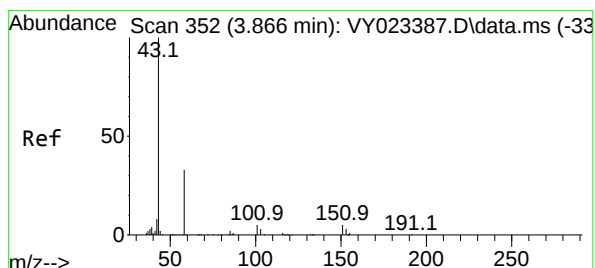
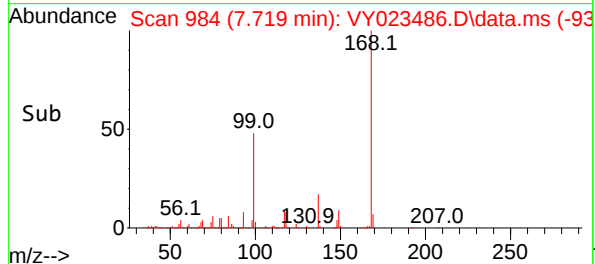
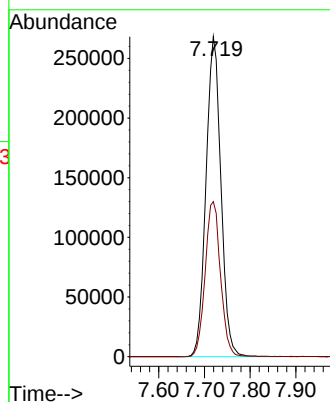
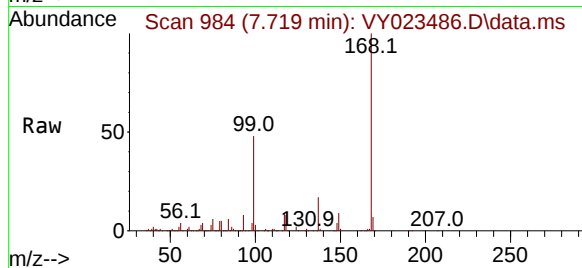




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.719 min Scan# 984
Delta R.T. 0.012 min
Lab File: VY023486.D
Acq: 16 Oct 2025 12:57

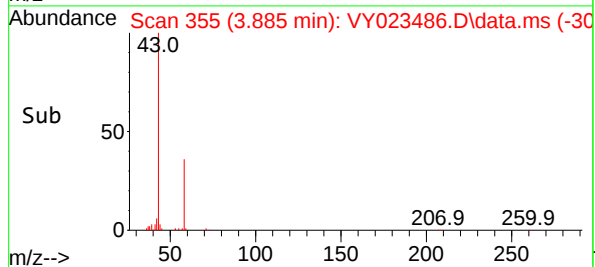
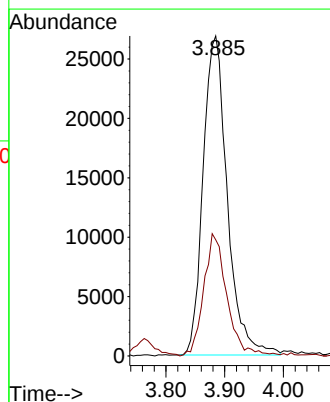
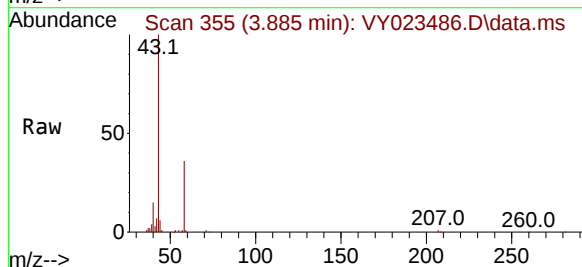
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

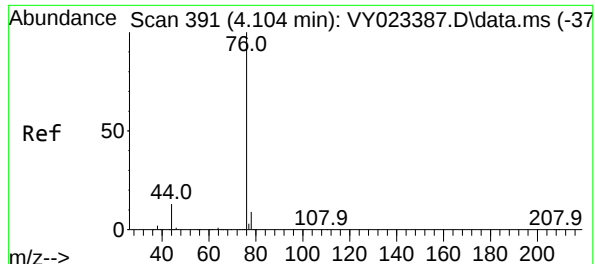
Tgt Ion:168 Resp: 607130
Ion Ratio Lower Upper
168 100
99 48.5 39.7 59.5



#16
Acetone
Concen: 63.596 ug/l
RT: 3.885 min Scan# 355
Delta R.T. 0.018 min
Lab File: VY023486.D
Acq: 16 Oct 2025 12:57

Tgt Ion: 43 Resp: 76866
Ion Ratio Lower Upper
43 100
58 36.4 27.7 41.5





#17

Carbon Disulfide

Concen: 1.933 ug/l

RT: 4.129 min Scan# 391

Delta R.T. 0.024 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

Instrument :

MSVOA_Y

ClientSampleId :

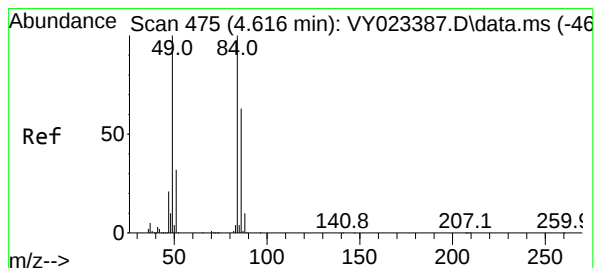
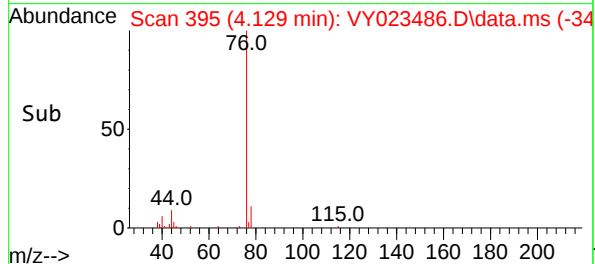
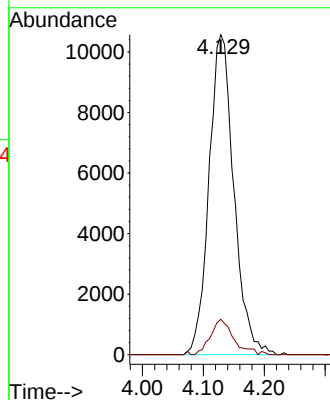
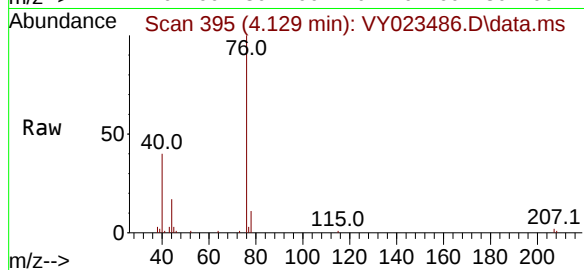
PR132-SO1-085011-20251015

Tgt Ion: 76 Resp: 29960

Ion Ratio Lower Upper

76 100

78 11.0 7.3 10.9#



#20

Methylene Chloride

Concen: 2.389 ug/l

RT: 4.641 min Scan# 479

Delta R.T. 0.024 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

Tgt Ion: 84 Resp: 15615

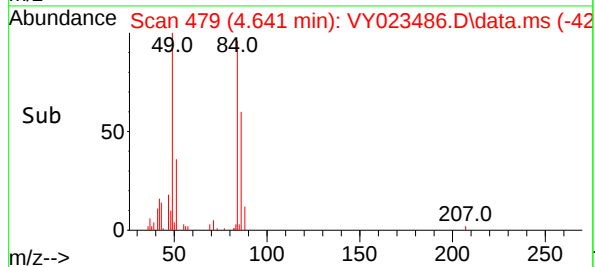
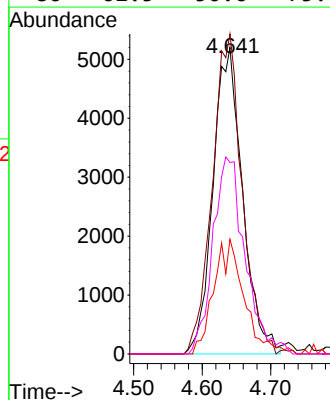
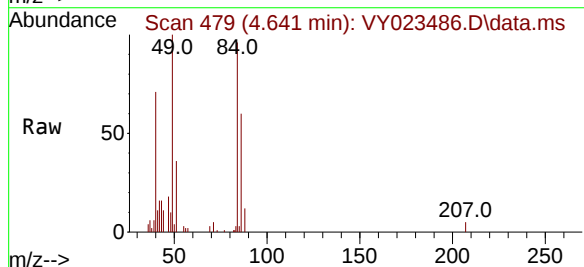
Ion Ratio Lower Upper

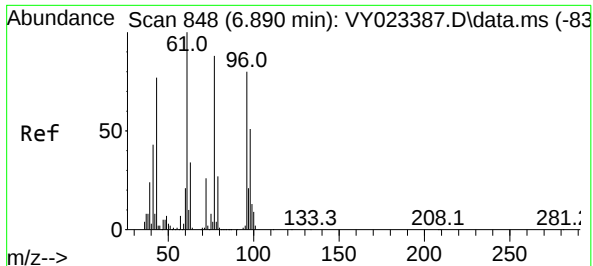
84 100

49 104.4 80.2 120.4

51 37.3 25.9 38.9

86 62.5 50.6 75.8





#25

2-Butanone

Concen: 19.252 ug/l

RT: 6.909 min Scan# 81

Delta R.T. 0.018 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

Instrument :

MSVOA_Y

ClientSampleId :

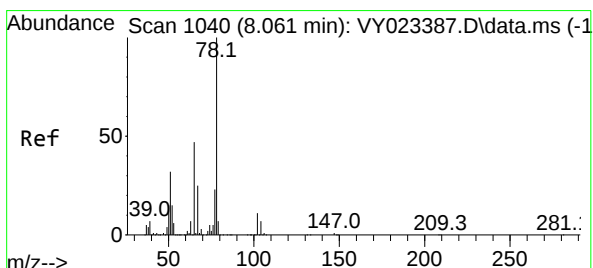
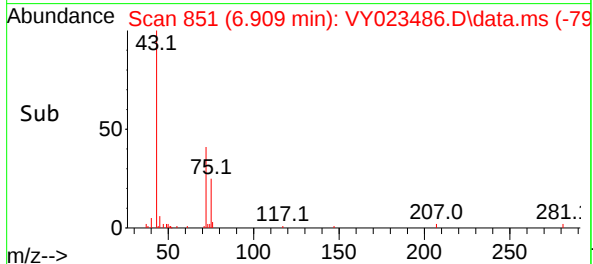
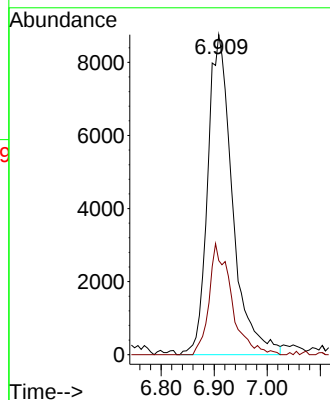
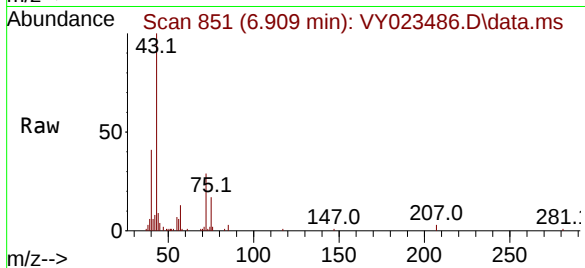
PR132-SO1-085011-20251015

Tgt Ion: 43 Resp: 28408

Ion Ratio Lower Upper

43 100

72 29.4 27.4 41.2



#33

1,2-Dichloroethane-d4

Concen: 58.119 ug/l

RT: 8.073 min Scan# 1042

Delta R.T. 0.012 min

Lab File: VY023486.D

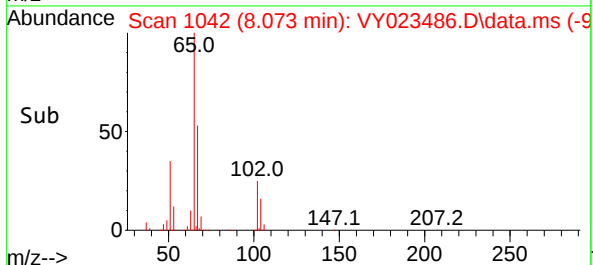
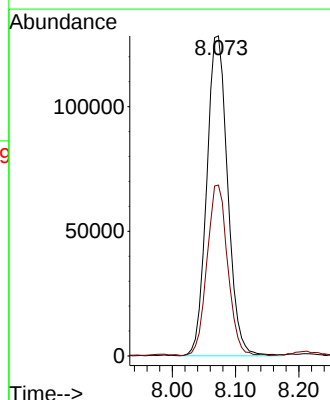
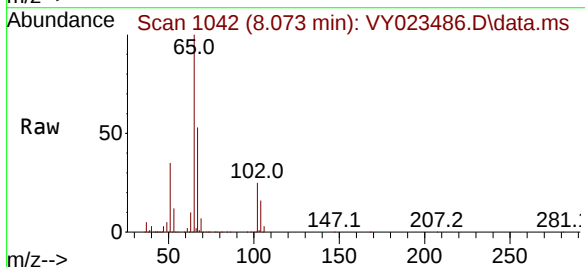
Acq: 16 Oct 2025 12:57

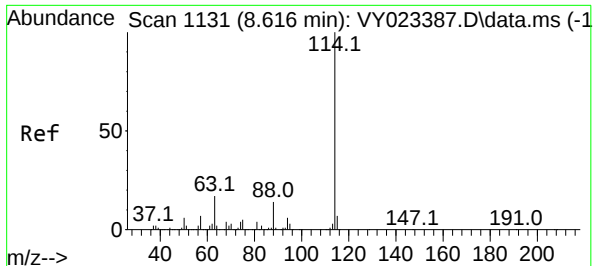
Tgt Ion: 65 Resp: 295066

Ion Ratio Lower Upper

65 100

67 52.7 0.0 105.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.622 min Scan# 1131

Delta R.T. 0.006 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO1-085011-20251015

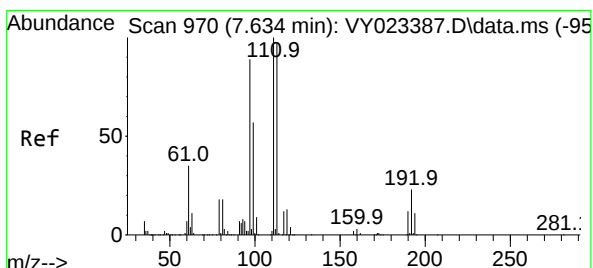
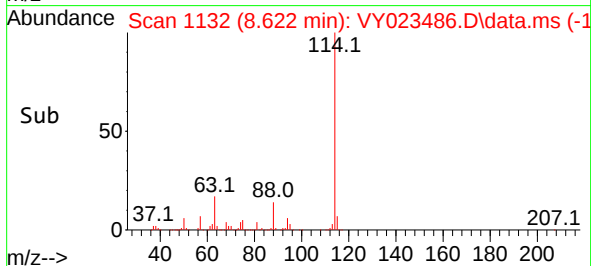
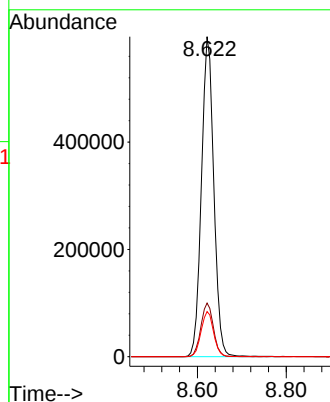
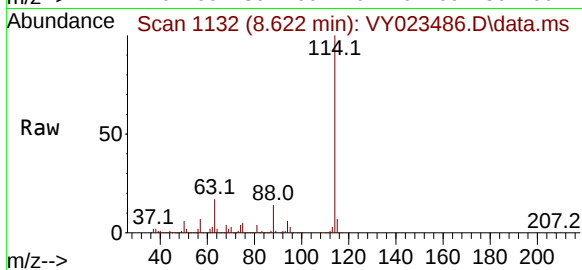
Tgt Ion:114 Resp: 1157199

Ion Ratio Lower Upper

114 100

63 16.8 0.0 34.2

88 14.1 0.0 28.4



#35

Dibromofluoromethane

Concen: 53.341 ug/l

RT: 7.646 min Scan# 972

Delta R.T. 0.012 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

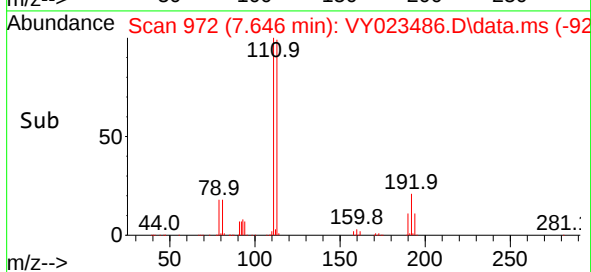
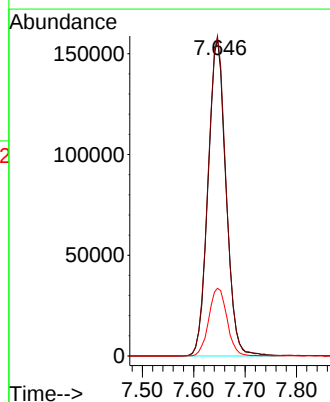
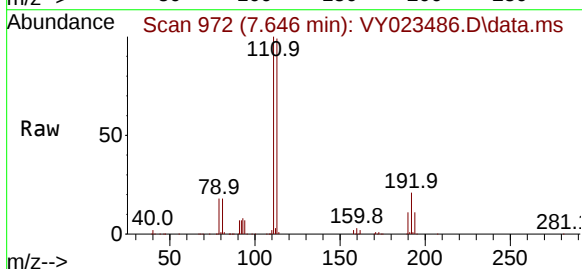
Tgt Ion:113 Resp: 379276

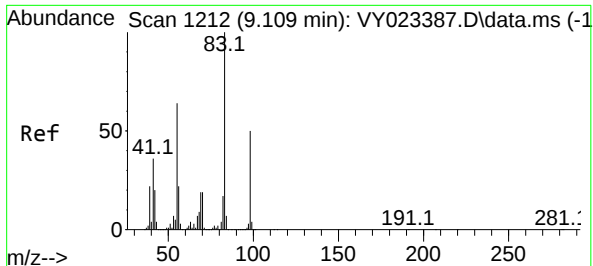
Ion Ratio Lower Upper

113 100

111 101.8 81.8 122.6

192 21.8 18.0 27.0





#39

Methylcyclohexane

Concen: 27.749 ug/l

RT: 9.115 min Scan# 1212

Delta R.T. 0.006 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO1-085011-20251015

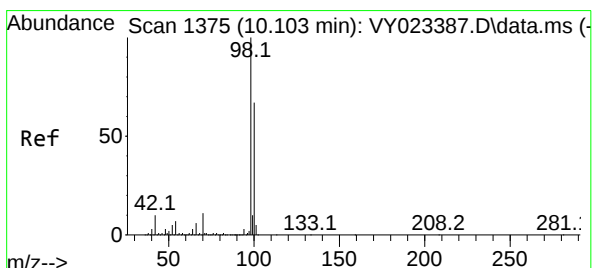
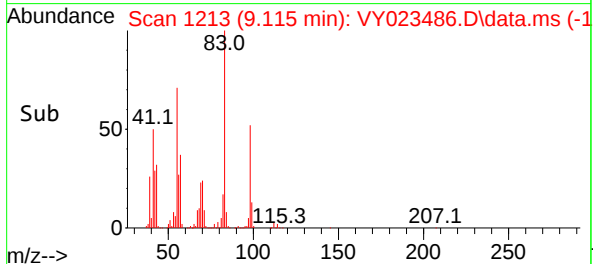
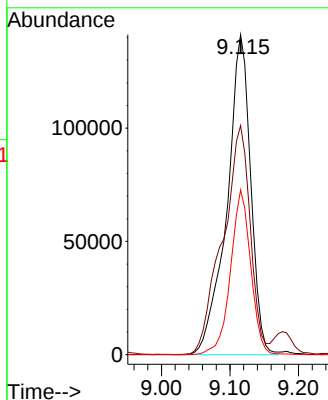
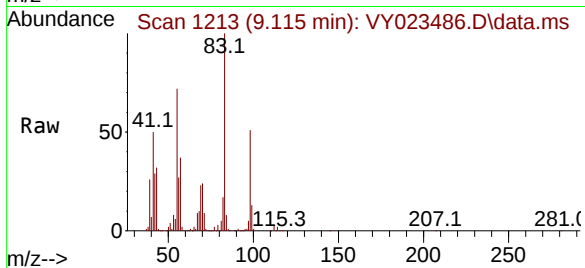
Tgt Ion: 83 Resp: 340108

Ion Ratio Lower Upper

83 100

55 71.5 51.4 77.2

98 51.5 40.4 60.6



#50

Toluene-d8

Concen: 55.215 ug/l

RT: 10.109 min Scan# 1376

Delta R.T. 0.006 min

Lab File: VY023486.D

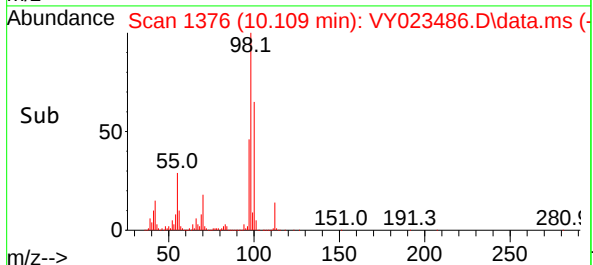
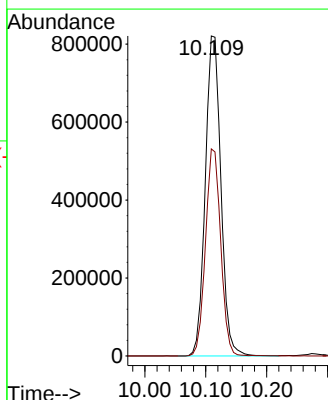
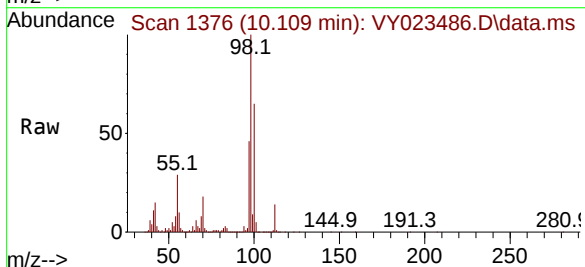
Acq: 16 Oct 2025 12:57

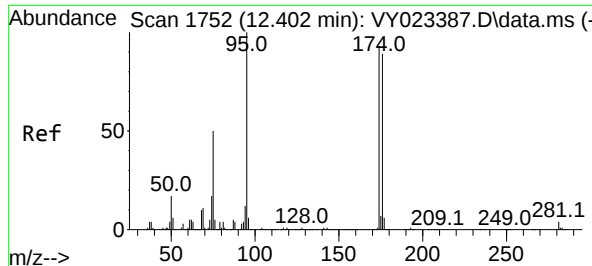
Tgt Ion: 98 Resp: 1462096

Ion Ratio Lower Upper

98 100

100 63.1 53.0 79.4





#62

4-Bromofluorobenzene

Concen: 51.179 ug/l

RT: 12.408 min Scan# 1

Delta R.T. 0.006 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO1-085011-20251015

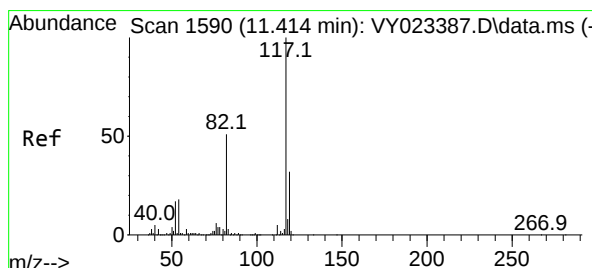
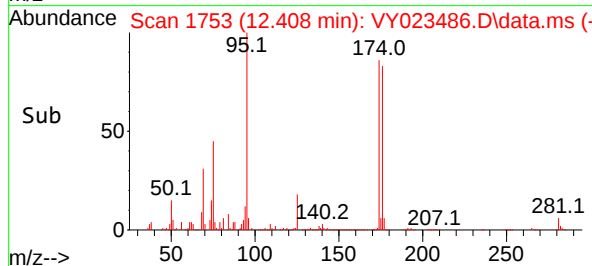
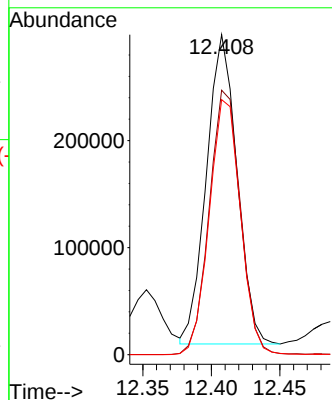
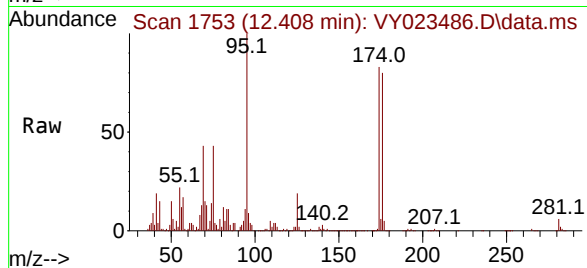
Tgt Ion: 95 Resp: 447422

Ion Ratio Lower Upper

95 100

174 87.6 0.0 192.8

176 84.4 0.0 187.6



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 1591

Delta R.T. 0.006 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

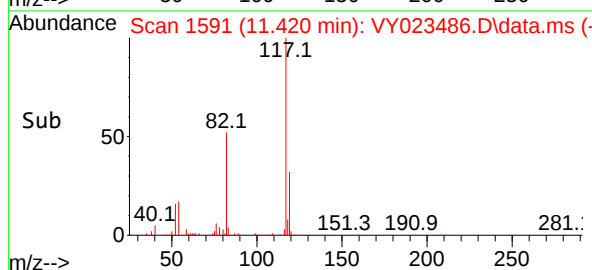
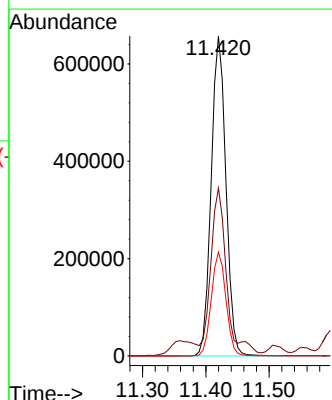
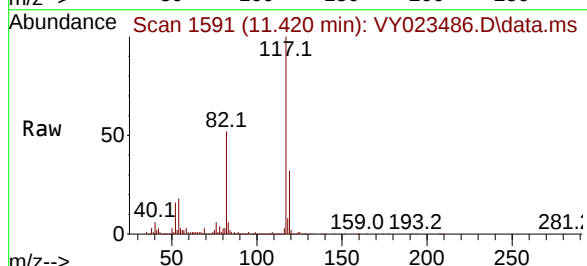
Tgt Ion: 117 Resp: 1063112

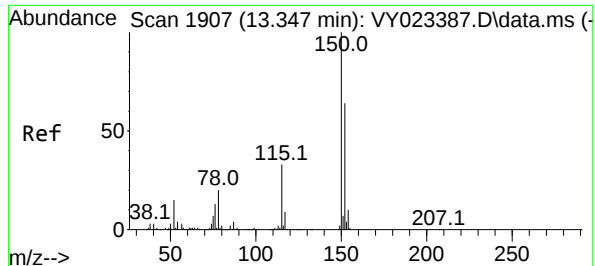
Ion Ratio Lower Upper

117 100

82 49.6 41.0 61.4

119 32.4 25.6 38.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.346 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO1-085011-20251015

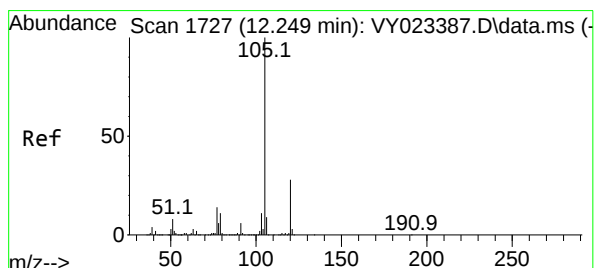
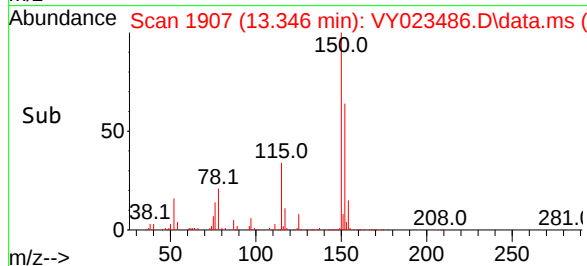
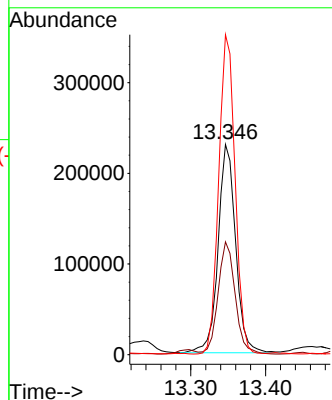
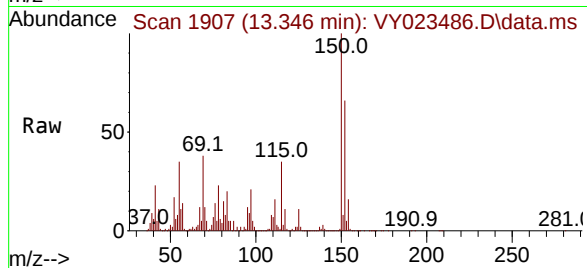
Tgt Ion:152 Resp: 376450

Ion Ratio Lower Upper

152 100

115 52.5 27.1 81.2

150 142.7 0.0 347.4



#73

Isopropylbenzene

Concen: 1.423 ug/l

RT: 12.255 min Scan# 1728

Delta R.T. 0.006 min

Lab File: VY023486.D

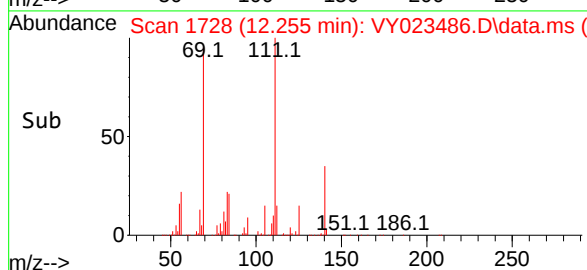
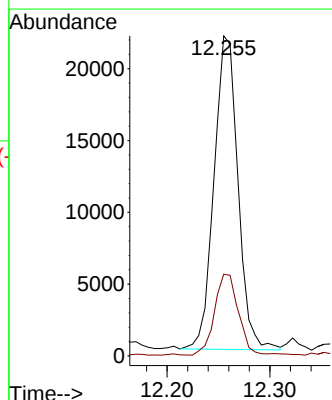
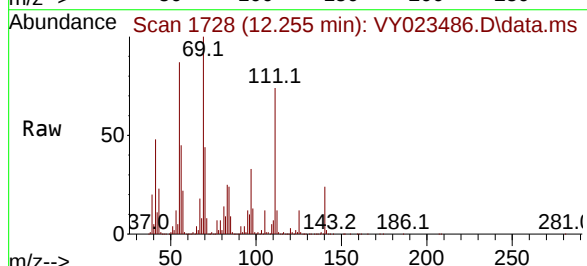
Acq: 16 Oct 2025 12:57

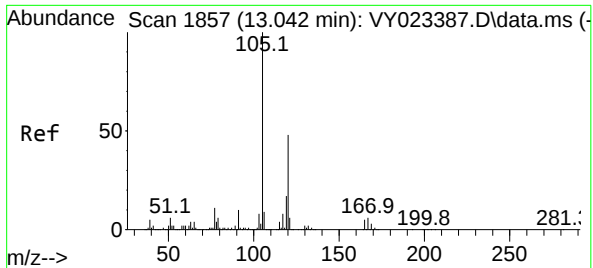
Tgt Ion:105 Resp: 35296

Ion Ratio Lower Upper

105 100

120 25.5 13.9 41.7





#84

1,2,4-Trimethylbenzene

Concen: 4.175 ug/l

RT: 13.048 min Scan# 1857

Delta R.T. 0.006 min

Lab File: VY023486.D

Acq: 16 Oct 2025 12:57

Instrument :

MSVOA_Y

ClientSampleId :

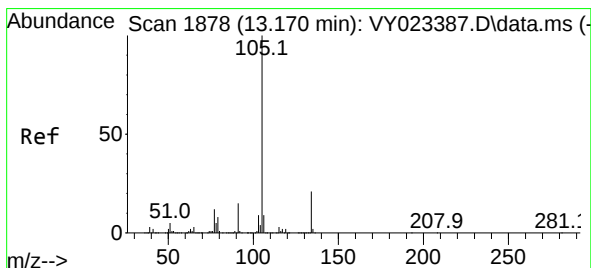
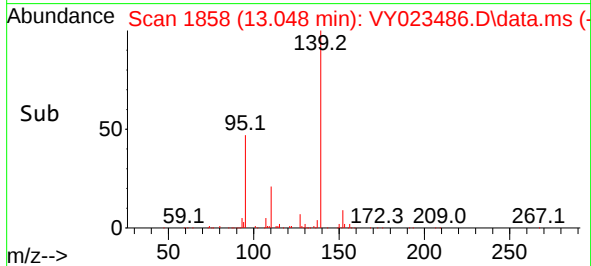
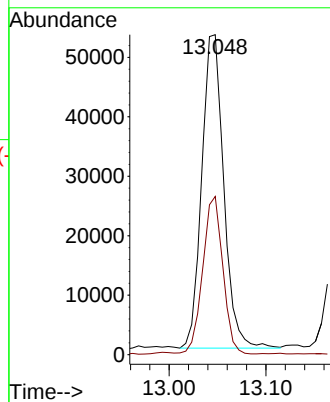
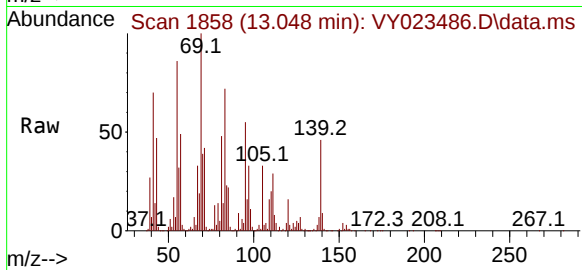
PR132-SO1-085011-20251015

Tgt Ion:105 Resp: 83529

Ion Ratio Lower Upper

105 100

120 45.7 23.8 71.2



#85

sec-Butylbenzene

Concen: 1.614 ug/l

RT: 13.176 min Scan# 1879

Delta R.T. 0.006 min

Lab File: VY023486.D

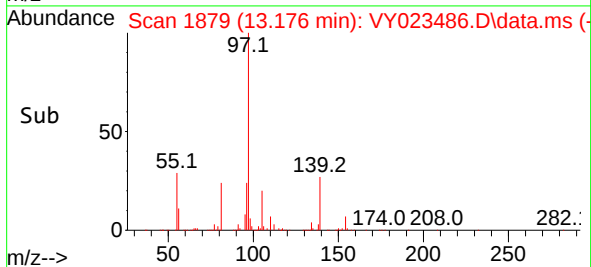
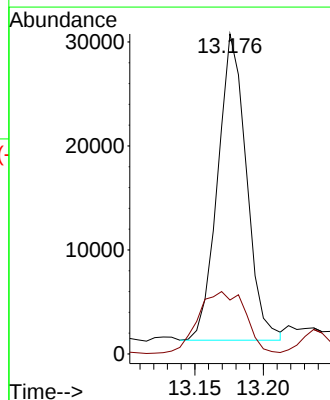
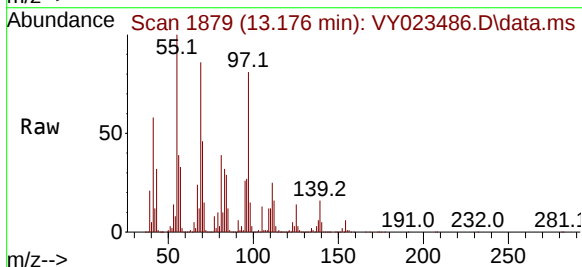
Acq: 16 Oct 2025 12:57

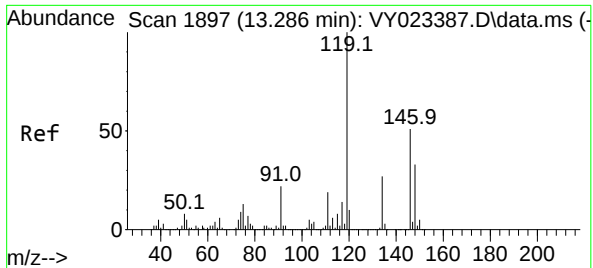
Tgt Ion:105 Resp: 42860

Ion Ratio Lower Upper

105 100

134 33.4 10.7 32.1#





#86

p-Isopropyltoluene

Concen: 3.267 ug/l

RT: 13.291 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY023486.D

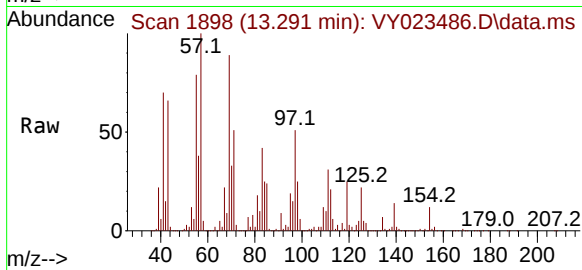
Acq: 16 Oct 2025 12:57

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO1-085011-20251015



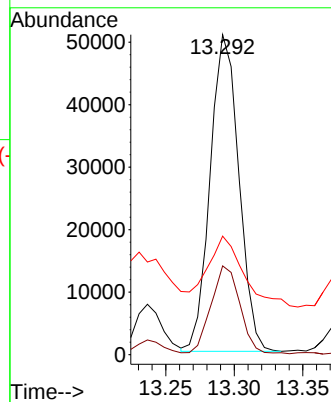
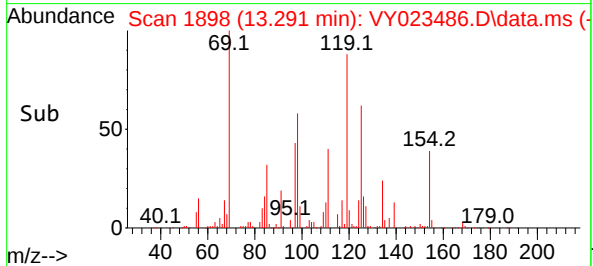
Tgt Ion:119 Resp: 73852

Ion Ratio Lower Upper

119 100

134 28.0 13.6 40.7

91 27.8 10.9 32.9



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M

Title : SW846 8260

Signal : TIC: VY023486.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.879	345	354	364	rBV	44732	126134	1.41%	0.057%
2	7.646	960	972	978	rBV	522789	1277605	14.26%	0.582%
3	7.719	978	984	992	rVV	756694	1726924	19.27%	0.787%
4	7.799	992	997	1009	rVB2	107120	274173	3.06%	0.125%
5	7.927	1009	1018	1024	rBV2	62709	158022	1.76%	0.072%
6	8.073	1034	1042	1053	rVB	364210	828940	9.25%	0.378%
7	8.207	1053	1064	1070	rVV3	111164	289002	3.23%	0.132%
8	8.280	1070	1076	1081	rVV2	76092	180017	2.01%	0.082%
9	8.347	1081	1087	1100	rVB	181360	421184	4.70%	0.192%
10	8.622	1123	1132	1148	rBV	1278990	2530711	28.25%	1.153%
11	8.939	1175	1184	1197	rVB	41419	107197	1.20%	0.049%
12	9.115	1197	1213	1219	rBV3	849137	2362422	26.37%	1.076%
13	9.176	1219	1223	1231	rVB	290725	542116	6.05%	0.247%
14	9.396	1249	1259	1267	rVB	489730	1068561	11.93%	0.487%
15	9.542	1275	1283	1291	rVB2	555060	1077176	12.02%	0.491%
16	9.695	1302	1308	1311	rBV	232601	411685	4.59%	0.188%
17	9.737	1311	1315	1321	rVB2	186853	343980	3.84%	0.157%
18	9.871	1330	1337	1341	rBV	326830	644623	7.19%	0.294%
19	9.920	1341	1345	1352	rVB	230515	427248	4.77%	0.195%
20	9.999	1352	1358	1369	rBV5	194986	580831	6.48%	0.265%
21	10.109	1369	1376	1390	rVB	3371449	6859200	76.56%	3.124%
22	10.237	1390	1397	1400	rBV	215649	394195	4.40%	0.180%
23	10.298	1400	1407	1414	rVB5	561269	1586522	17.71%	0.723%
24	10.414	1414	1426	1429	rBV	566454	1110359	12.39%	0.506%
25	10.451	1429	1432	1439	rVB	797127	1315258	14.68%	0.599%
26	10.548	1440	1448	1453	rBV3	515573	1163429	12.99%	0.530%
27	10.597	1453	1456	1460	rVV	252933	376846	4.21%	0.172%
28	10.646	1460	1464	1468	rVB2	553639	829067	9.25%	0.378%
29	10.694	1468	1472	1473	rBV	86519	104638	1.17%	0.048%
30	10.737	1473	1479	1484	rVB	2442540	3842457	42.89%	1.750%
31	10.835	1484	1495	1502	rBV	1041204	2494667	27.84%	1.136%
32	10.902	1502	1506	1509	rVV3	498484	816895	9.12%	0.372%
33	10.969	1513	1517	1520	rVV	988634	1575267	17.58%	0.718%
34	11.024	1520	1526	1531	rVV	3418949	6312655	70.46%	2.876%
35	11.072	1531	1534	1538	rVV	478925	748117	8.35%	0.341%
36	11.133	1538	1544	1548	rVV2	1540067	3062680	34.18%	1.395%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y1007255.M
Title : SW846 8260

37	11.182	1548	1552	1555	rVV	569287	1018716	11.37%	0.464%
38	11.225	1555	1559	1568	rVB	1466060	2635917	29.42%	1.201%
39	11.304	1568	1572	1576	rBV2	489487	834604	9.32%	0.380%
40	11.347	1576	1579	1586	rVV4	208413	402685	4.49%	0.183%
41	11.420	1586	1591	1596	rVV	1860446	3094985	34.54%	1.410%
42	11.456	1596	1597	1601	rVB	277335	278473	3.11%	0.127%
43	11.554	1609	1613	1617	rBV	741260	1119500	12.50%	0.510%
44	11.609	1617	1622	1627	rVV4	1152842	2411882	26.92%	1.099%
45	11.664	1627	1631	1635	rVV	1757741	3179038	35.48%	1.448%
46	11.706	1635	1638	1643	rVB2	1449477	2407035	26.87%	1.096%
47	11.767	1643	1648	1652	rBV2	783685	1434098	16.01%	0.653%
48	11.865	1660	1664	1668	rVB2	585162	908711	10.14%	0.414%
49	11.932	1668	1675	1682	rBV4	2488218	6004285	67.02%	2.735%
50	11.987	1682	1684	1686	rVV	390839	429355	4.79%	0.196%
51	12.017	1686	1689	1691	rVV	531120	740909	8.27%	0.337%
52	12.054	1691	1695	1699	rVB	5039368	6725143	75.06%	3.063%
53	12.091	1699	1701	1702	rBV2	124831	99613	1.11%	0.045%
54	12.133	1702	1708	1710	rVV3	2040726	3546864	39.59%	1.616%
55	12.164	1710	1713	1719	rVB3	3836373	6504478	72.60%	2.963%
56	12.249	1724	1727	1730	rVV4	557869	709852	7.92%	0.323%
57	12.304	1730	1736	1748	rVB7	2094927	6039070	67.40%	2.751%
58	12.414	1748	1754	1759	rBV3	2035203	3728161	41.61%	1.698%
59	12.499	1759	1768	1771	rBV6	959849	2417133	26.98%	1.101%
60	12.572	1775	1780	1786	rVB2	3321549	6056553	67.60%	2.759%
61	12.651	1786	1793	1798	rBV5	1578861	3835423	42.81%	1.747%
62	12.737	1799	1807	1811	rBV4	3141057	8459518	94.42%	3.853%
63	12.877	1826	1830	1833	rBV2	1273322	1706858	19.05%	0.777%
64	12.932	1833	1839	1841	rBV3	1057153	1928474	21.52%	0.878%
65	12.968	1841	1845	1852	rVB	5326929	7848301	87.60%	3.575%
66	13.029	1852	1855	1857	rBV	469722	646944	7.22%	0.295%
67	13.096	1862	1866	1871	rBV3	1253724	2034261	22.71%	0.927%
68	13.145	1871	1874	1877	rBV2	1778000	2455953	27.41%	1.119%
69	13.243	1882	1890	1894	rBV4	3074930	6802823	75.93%	3.099%
70	13.346	1902	1907	1921	rVB5	1392986	4130313	46.10%	1.881%
71	13.493	1926	1931	1935	rBV2	1701331	2515549	28.08%	1.146%
72	13.529	1935	1937	1944	rVB7	630299	1031638	11.51%	0.470%
73	13.615	1945	1951	1953	rBV6	542040	1274596	14.23%	0.581%
74	13.669	1955	1960	1965	rBV5	3144263	5958812	66.51%	2.714%
75	13.718	1965	1968	1972	rVB2	1109024	1590237	17.75%	0.724%
76	13.840	1984	1988	1994	rBV4	1452669	2513723	28.06%	1.145%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M
Title : SW846 8260

77	13.938	2001	2004	2009	rVB	2207562	3017859	33.68%	1.375%
78	13.999	2010	2014	2019	rVB4	1176938	1648938	18.40%	0.751%
79	14.066	2019	2025	2031	rBV4	1741057	3391721	37.86%	1.545%
80	14.121	2031	2034	2037	rBV5	731506	910656	10.16%	0.415%
81	14.182	2038	2044	2050	rBV4	3581119	7834420	87.44%	3.569%
82	14.236	2050	2053	2059	rBV5	475547	907157	10.13%	0.413%
83	14.340	2066	2070	2075	rBV3	2688997	3837612	42.83%	1.748%
84	14.468	2088	2091	2094	rBV3	634341	871270	9.72%	0.397%
85	14.541	2099	2103	2106	rBV5	920417	1606230	17.93%	0.732%
86	14.602	2109	2113	2117	rVV2	2011839	3572248	39.87%	1.627%
87	14.651	2117	2121	2128	rVB	5943453	8959508	100.00%	4.081%
88	14.730	2131	2134	2137	rVB4	809682	1036524	11.57%	0.472%
89	14.858	2153	2155	2159	rVB4	1266963	1562451	17.44%	0.712%
90	15.035	2181	2184	2187	rBV2	959490	1238333	13.82%	0.564%
91	15.127	2194	2199	2205	rBV	3460604	5324954	59.43%	2.426%
92	15.352	2232	2236	2243	rBV6	817420	1742851	19.45%	0.794%
93	15.511	2257	2262	2268	rVB2	2444329	4348416	48.53%	1.981%
94	16.047	2346	2350	2357	rVB2	900980	1645266	18.36%	0.749%
95	16.358	2397	2401	2407	rVB4	338725	644635	7.19%	0.294%

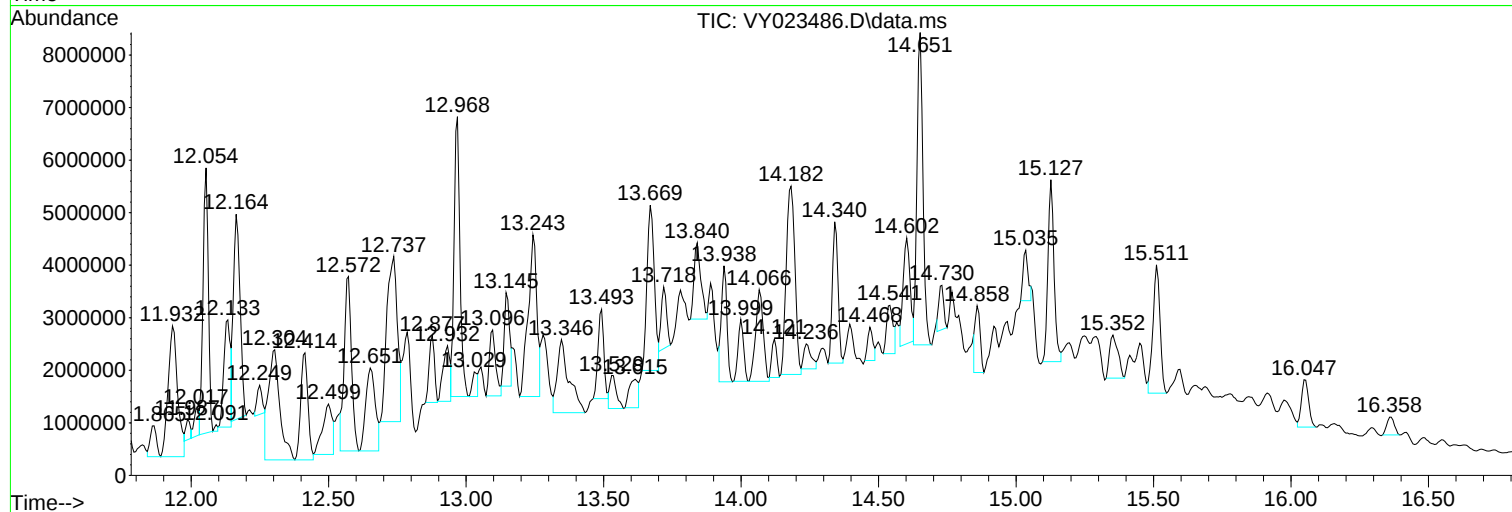
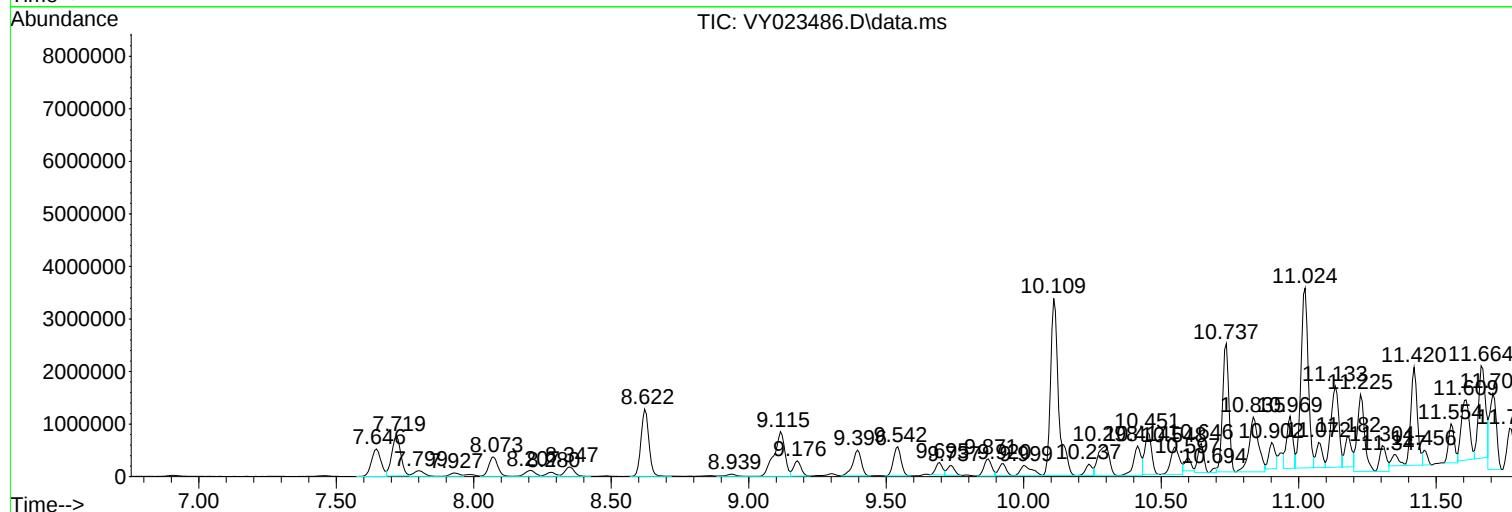
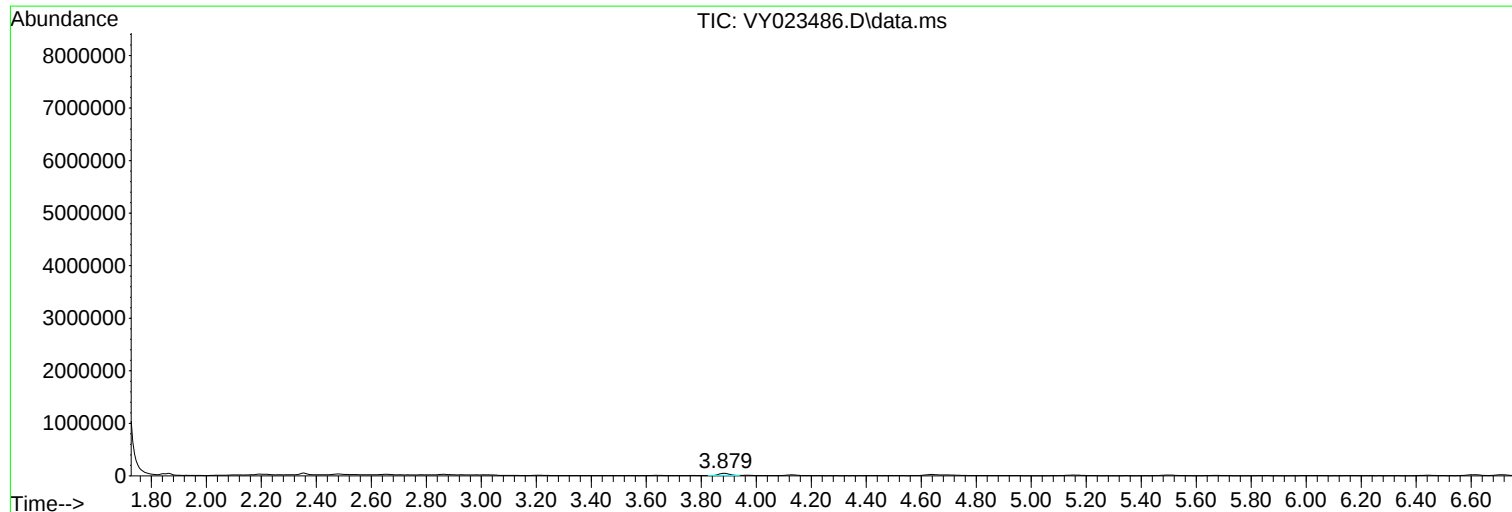
Sum of corrected areas: 219532335

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

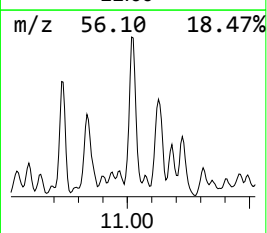
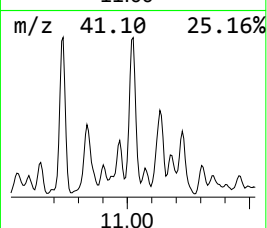
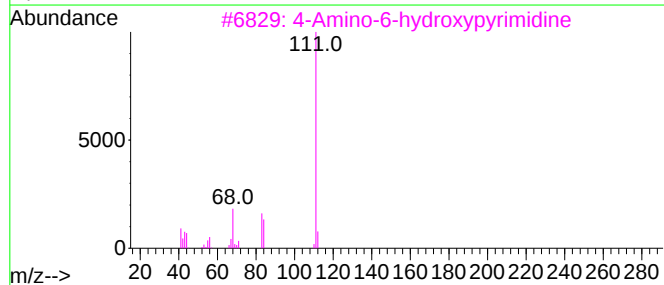
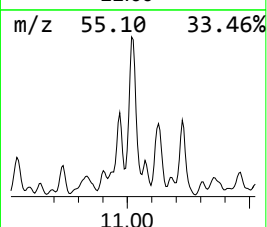
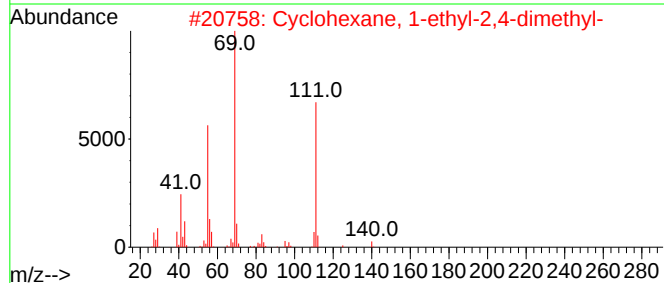
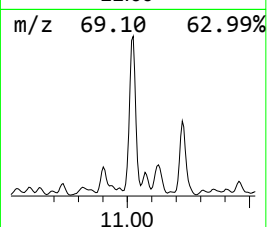
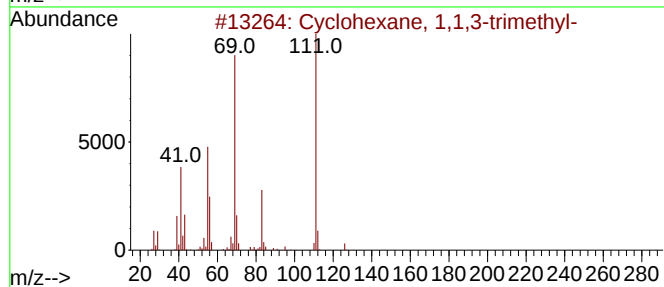
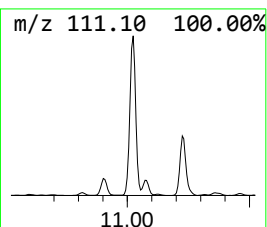
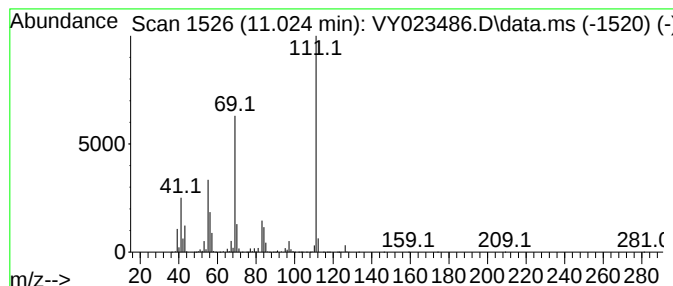
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 1 Cyclohexane, 1,1,3-trimethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.024	101.98 ug/l	6312660	Chlorobenzene-d5	11.420	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	87
2	Cyclohexane, 1-ethyl-2,4-dimethyl-	140	C10H20	061142-69-6	64
3	4-Amino-6-hydroxypyrimidine	111	C4H5N3O	001193-22-2	64
4	p-Fluoroaniline	111	C6H6FN	000371-40-4	58
5	Cyclohexane, 1,3,5-trimethyl-, (...)	126	C9H18	001795-26-2	56



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

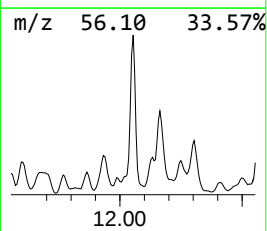
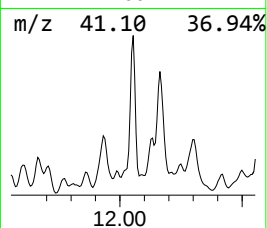
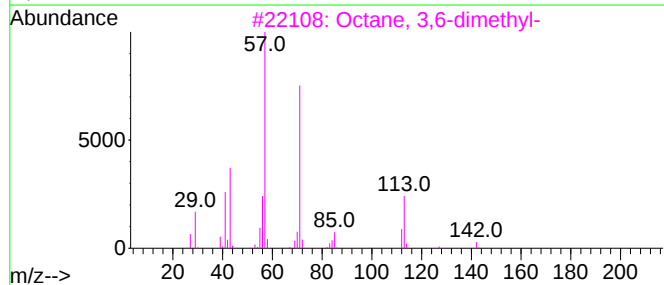
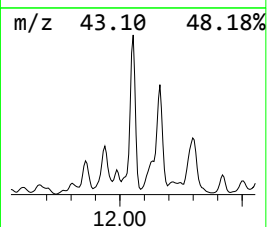
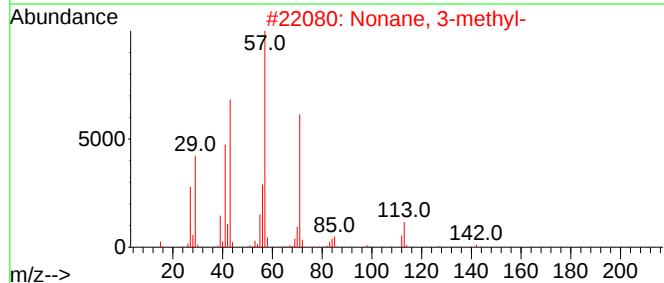
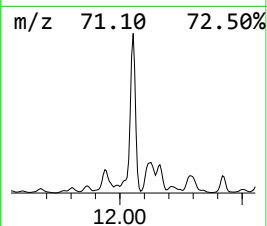
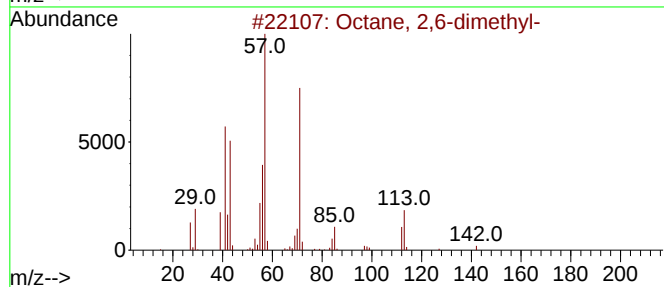
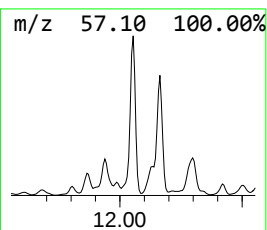
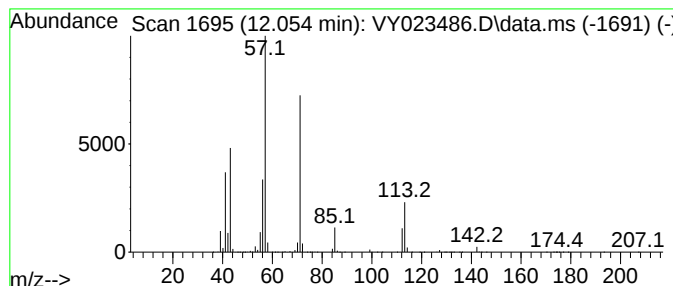
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 3 Octane, 2,6-dimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.054	108.65 ug/l	6725140	Chlorobenzene-d5	11.420

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	91
2			Nonane, 3-methyl-	142	C10H22	005911-04-6	91
3			Octane, 3,6-dimethyl-	142	C10H22	015869-94-0	91
4			Sulfurous acid, 2-ethylhexyl hex...	418	C24H50O3S	1000309-19-9	72
5			Sulfurous acid, 2-ethylhexyl non...	320	C17H36O3S	1010309-19-2	64



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

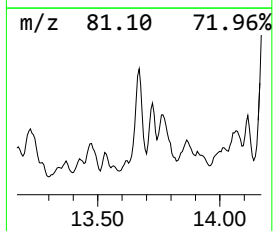
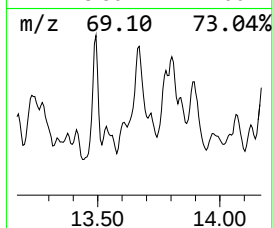
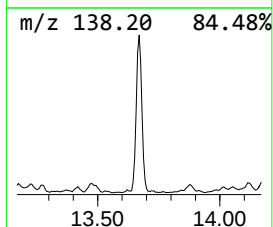
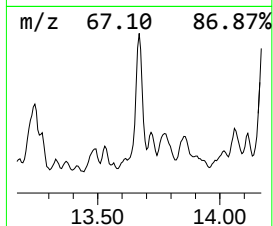
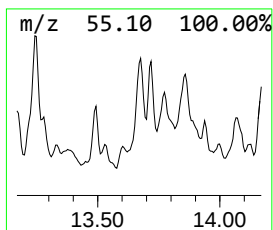
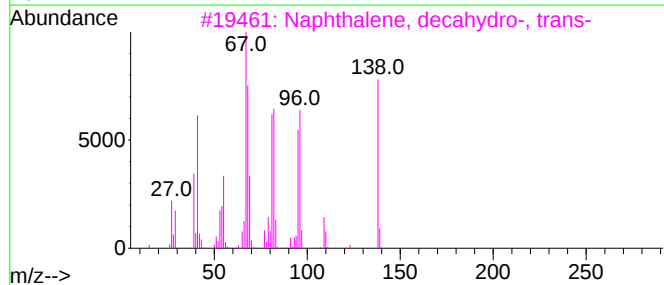
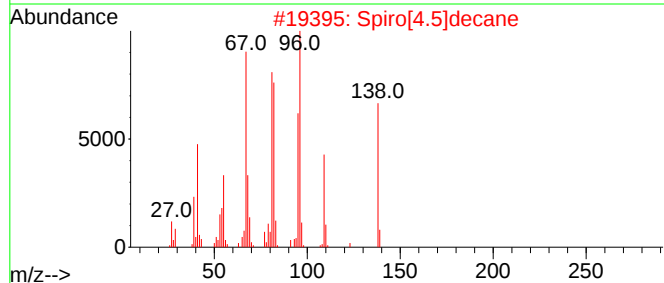
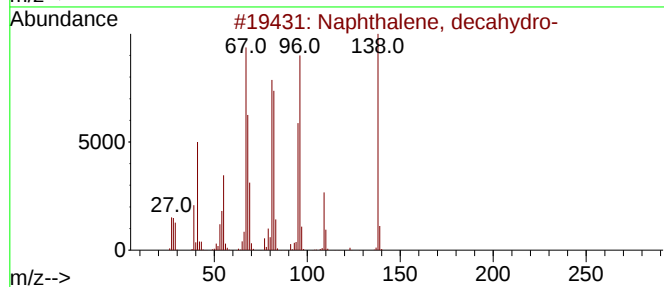
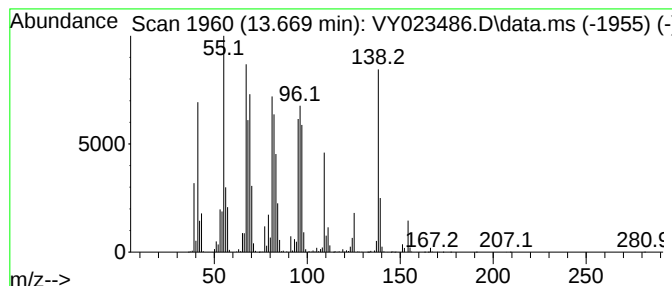
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 8 Naphthalene, decahydro- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.669	72.14 ug/l	5958810	1,4-Dichlorobenzene-d4	13.346

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Naphthalene, decahydro-	138	C10H18	000091-17-8	93
2			Spiro[4.5]decane	138	C10H18	000176-63-6	92
3			Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	70
4			Naphthalene, decahydro-, cis-	138	C10H18	000493-01-6	64
5			9-Borabicyclo[3.3.1]nonane, 9-hy...	138	C8H15BO	063366-65-4	64



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

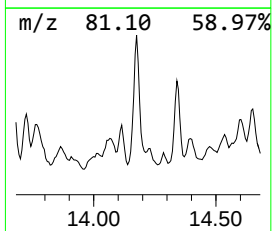
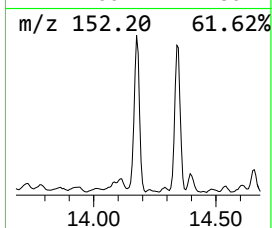
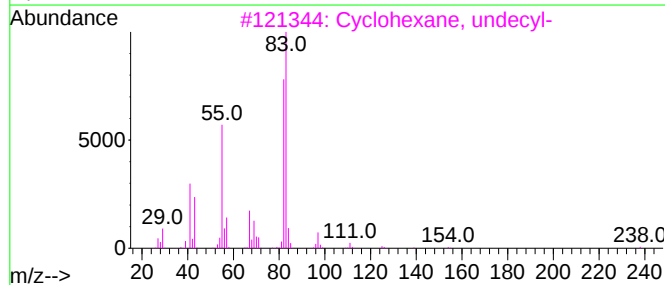
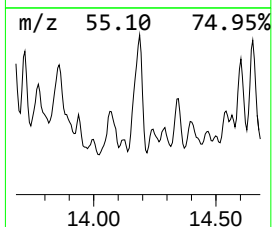
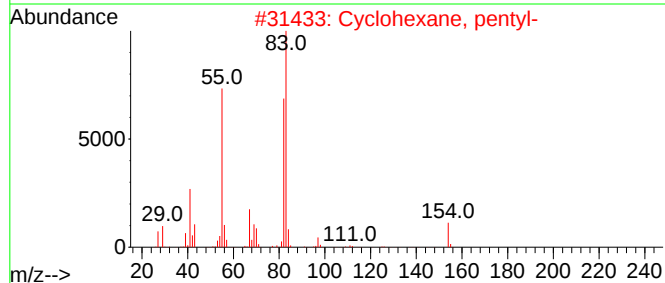
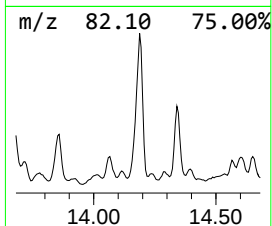
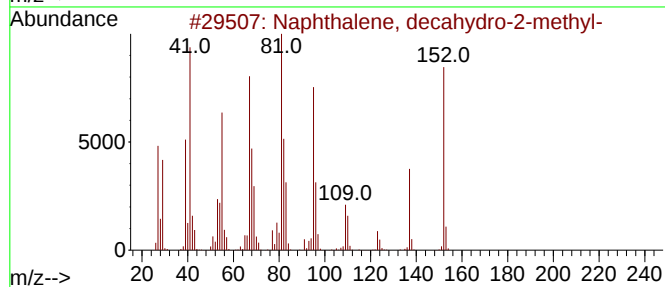
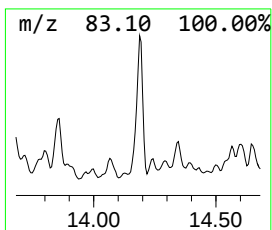
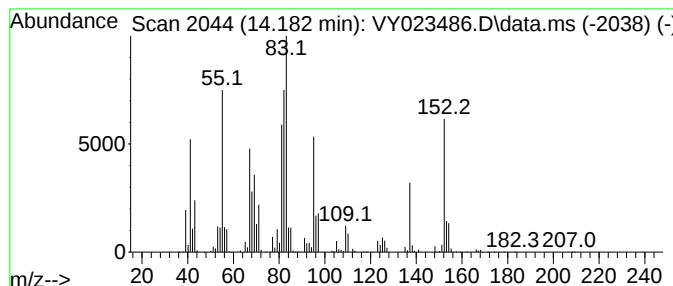
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 9 Naphthalene, decahydro-2-me... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.182	94.84 ug/l	7834420	1,4-Dichlorobenzene-d4	13.346	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	91
2	Cyclohexane, pentyl-	154	C11H22	004292-92-6	49
3	Cyclohexane, undecyl-	238	C17H34	054105-66-7	43
4	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	43
5	Cyclohexanone, 5-methyl-2-(1-met...	152	C10H16O	015932-80-6	42



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

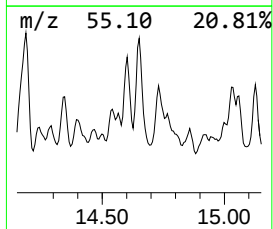
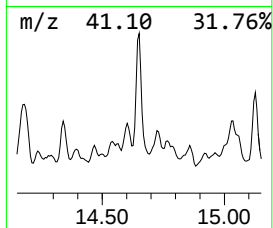
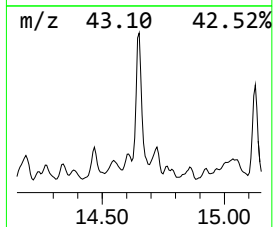
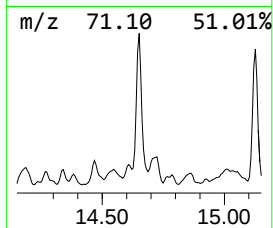
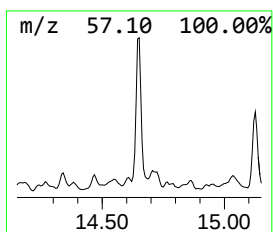
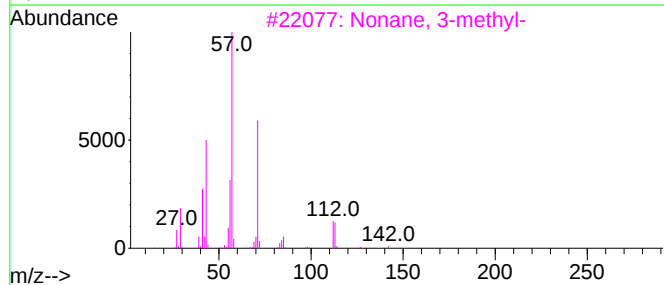
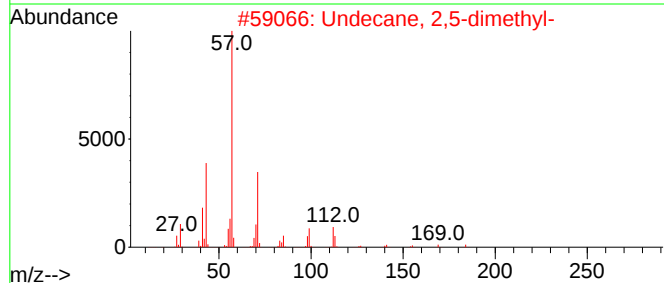
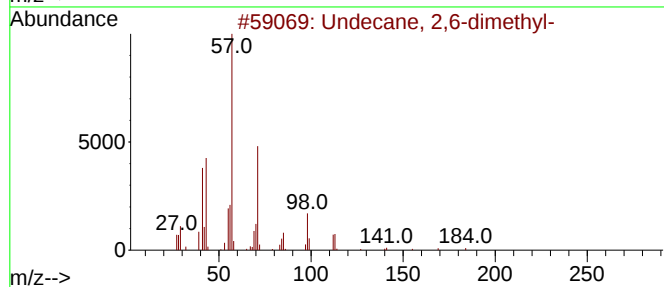
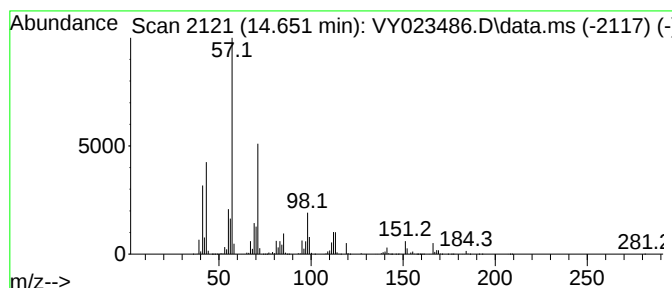
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 10 Undecane, 2,6-dimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD		R.T.	
14.651	108.46 ug/l	8959510	1,4-Dichlorobenzene-d4		13.346	
Hit# of 5	Tentative ID		MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-		184	C13H28	017301-23-4	93
2	Undecane, 2,5-dimethyl-		184	C13H28	017301-22-3	60
3	Nonane, 3-methyl-		142	C10H22	005911-04-6	58
4	Sulfurous acid, 2-ethylhexyl non...		320	C17H36O3S	1010309-19-2	50
5	Sulfurous acid, butyl octyl ester		250	C12H26O3S	1000309-17-5	50



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023486.D
Acq On : 16 Oct 2025 12:57
Operator : SY/MD
Sample : Q3363-01
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-085011-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Cyclohexane, 1,...	11.024	102.0	ug/l	6312660	3	11.420	3094990	50.0
Octane, 2,6-dim...	12.054	108.7	ug/l	6725140	3	11.420	3094990	50.0
Naphthalene, de...	13.669	72.1	ug/l	5958810	4	13.346	4130310	50.0
Naphthalene, de...	14.182	94.8	ug/l	7834420	4	13.346	4130310	50.0
Undecane, 2,6-d...	14.651	108.5	ug/l	8959510	4	13.346	4130310	50.0

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: PR132-SO1-039085-202510
 Lab Sample ID: Q3363-02
 Analytical Method: 8260D
 Sample Wt/Vol: 4.15 g

Level: LOW
 Final Vol: 5000 uL

Date Collected: 10/15/25
 Date Received: 10/15/25
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 56.6
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	10.6	U	1	2.40	10.6	ug/Kg	10/16/25 13:27	VY101625
74-87-3	Chloromethane	10.6	U	1	2.40	10.6	ug/Kg	10/16/25 13:27	VY101625
75-01-4	Vinyl Chloride	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
74-83-9	Bromomethane	10.6	U	1	2.30	10.6	ug/Kg	10/16/25 13:27	VY101625
75-00-3	Chloroethane	10.6	U	1	2.70	10.6	ug/Kg	10/16/25 13:27	VY101625
75-69-4	Trichlorofluoromethane	10.6	U	1	2.60	10.6	ug/Kg	10/16/25 13:27	VY101625
76-13-1	1,1,2-Trichlorotrifluoroethane	10.6	U	1	2.30	10.6	ug/Kg	10/16/25 13:27	VY101625
75-35-4	1,1-Dichloroethene	10.6	U	1	2.10	10.6	ug/Kg	10/16/25 13:27	VY101625
67-64-1	Acetone	120		1	10.1	53.2	ug/Kg	10/16/25 13:27	VY101625
75-15-0	Carbon Disulfide	4.90	J	1	2.30	10.6	ug/Kg	10/16/25 13:27	VY101625
1634-04-4	Methyl tert-butyl Ether	10.6	U	1	1.60	10.6	ug/Kg	10/16/25 13:27	VY101625
79-20-9	Methyl Acetate	10.6	U	1	3.30	10.6	ug/Kg	10/16/25 13:27	VY101625
75-09-2	Methylene Chloride	9.20	J	1	7.50	21.3	ug/Kg	10/16/25 13:27	VY101625
156-60-5	trans-1,2-Dichloroethene	10.6	U	1	1.80	10.6	ug/Kg	10/16/25 13:27	VY101625
75-34-3	1,1-Dichloroethane	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
110-82-7	Cyclohexane	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
78-93-3	2-Butanone	37.7	J	1	13.9	53.2	ug/Kg	10/16/25 13:27	VY101625
56-23-5	Carbon Tetrachloride	10.6	U	1	2.10	10.6	ug/Kg	10/16/25 13:27	VY101625
156-59-2	cis-1,2-Dichloroethene	10.6	U	1	1.60	10.6	ug/Kg	10/16/25 13:27	VY101625
74-97-5	Bromochloromethane	10.6	U	1	2.40	10.6	ug/Kg	10/16/25 13:27	VY101625
67-66-3	Chloroform	10.6	U	1	1.80	10.6	ug/Kg	10/16/25 13:27	VY101625
71-55-6	1,1,1-Trichloroethane	10.6	U	1	2.00	10.6	ug/Kg	10/16/25 13:27	VY101625
108-87-2	Methylcyclohexane	12.5		1	1.90	10.6	ug/Kg	10/16/25 13:27	VY101625
71-43-2	Benzene	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
107-06-2	1,2-Dichloroethane	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
79-01-6	Trichloroethene	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
78-87-5	1,2-Dichloropropane	10.6	U	1	1.90	10.6	ug/Kg	10/16/25 13:27	VY101625
75-27-4	Bromodichloromethane	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
108-10-1	4-Methyl-2-Pentanone	53.2	U	1	7.60	53.2	ug/Kg	10/16/25 13:27	VY101625
108-88-3	Toluene	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
10061-02-6	t-1,3-Dichloropropene	10.6	U	1	1.40	10.6	ug/Kg	10/16/25 13:27	VY101625
10061-01-5	cis-1,3-Dichloropropene	10.6	U	1	1.30	10.6	ug/Kg	10/16/25 13:27	VY101625
79-00-5	1,1,2-Trichloroethane	10.6	U	1	2.00	10.6	ug/Kg	10/16/25 13:27	VY101625
591-78-6	2-Hexanone	53.2	U	1	7.90	53.2	ug/Kg	10/16/25 13:27	VY101625
124-48-1	Dibromochloromethane	10.6	U	1	1.90	10.6	ug/Kg	10/16/25 13:27	VY101625
106-93-4	1,2-Dibromoethane	10.6	U	1	1.90	10.6	ug/Kg	10/16/25 13:27	VY101625
127-18-4	Tetrachloroethene	10.6	U	1	2.20	10.6	ug/Kg	10/16/25 13:27	VY101625
108-90-7	Chlorobenzene	10.6	U	1	1.90	10.6	ug/Kg	10/16/25 13:27	VY101625
100-41-4	Ethyl Benzene	10.6	U	1	1.40	10.6	ug/Kg	10/16/25 13:27	VY101625
179601-23-1	m/p-Xylenes	21.3	U	1	2.60	21.3	ug/Kg	10/16/25 13:27	VY101625
95-47-6	o-Xylene	5.20	J	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
100-42-5	Styrene	10.6	U	1	1.50	10.6	ug/Kg	10/16/25 13:27	VY101625
75-25-2	Bromoform	10.6	U	1	1.80	10.6	ug/Kg	10/16/25 13:27	VY101625

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: PR132-SO1-039085-202510
 Lab Sample ID: Q3363-02
 Analytical Method: 8260D
 Sample Wt/Vol: 4.15 g

Level : LOW
 Final Vol: 5000 uL

Date Collected: 10/15/25
 Date Received: 10/15/25
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 56.6
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	10.6	U	1	1.70	10.6	ug/Kg	10/16/25 13:27	VY101625
79-34-5	1,1,2,2-Tetrachloroethane	10.6	U	1	2.60	10.6	ug/Kg	10/16/25 13:27	VY101625
541-73-1	1,3-Dichlorobenzene	10.6	U	1	3.60	10.6	ug/Kg	10/16/25 13:27	VY101625
106-46-7	1,4-Dichlorobenzene	10.6	U	1	3.30	10.6	ug/Kg	10/16/25 13:27	VY101625
95-50-1	1,2-Dichlorobenzene	10.6	U	1	3.10	10.6	ug/Kg	10/16/25 13:27	VY101625
96-12-8	1,2-Dibromo-3-Chloropropane	10.6	U	1	3.90	10.6	ug/Kg	10/16/25 13:27	VY101625
120-82-1	1,2,4-Trichlorobenzene	10.6	U	1	6.30	10.6	ug/Kg	10/16/25 13:27	VY101625
87-61-6	1,2,3-Trichlorobenzene	10.6	U	1	6.80	10.6	ug/Kg	10/16/25 13:27	VY101625
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	62.0			63 - 155	124%	SPK: 50		
1868-53-7	Dibromofluoromethane	53.3			70 - 134	107%	SPK: 50		
2037-26-5	Toluene-d8	51.7			74 - 123	103%	SPK: 50		
460-00-4	4-Bromofluorobenzene	52.7			17 - 146	105%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	585000							
540-36-3	1,4-Difluorobenzene	1150000							
3114-55-4	Chlorobenzene-d5	1120000							
3855-82-1	1,4-Dichlorobenzene-d4	424000							
TENTATIVE IDENTIFIED COMPOUNDS									
108-67-8	1,3,5-Trimethylbenzene	5.80	J			12.7	ug/Kg		
000123-48-8	3-Heptene, 2,2,4,6,6-pentamethyl-	110	J			12.9	ug/Kg		
95-63-6	1,2,4-Trimethylbenzene	6.00	J			13.0	ug/Kg		
000091-17-8	Naphthalene, decahydro-	91.9	J			13.7	ug/Kg		
003891-98-3	Dodecane, 2,6,10-trimethyl-	82.3	J			16.0	ug/Kg		

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

Quant Time: Oct 17 01:56:12 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

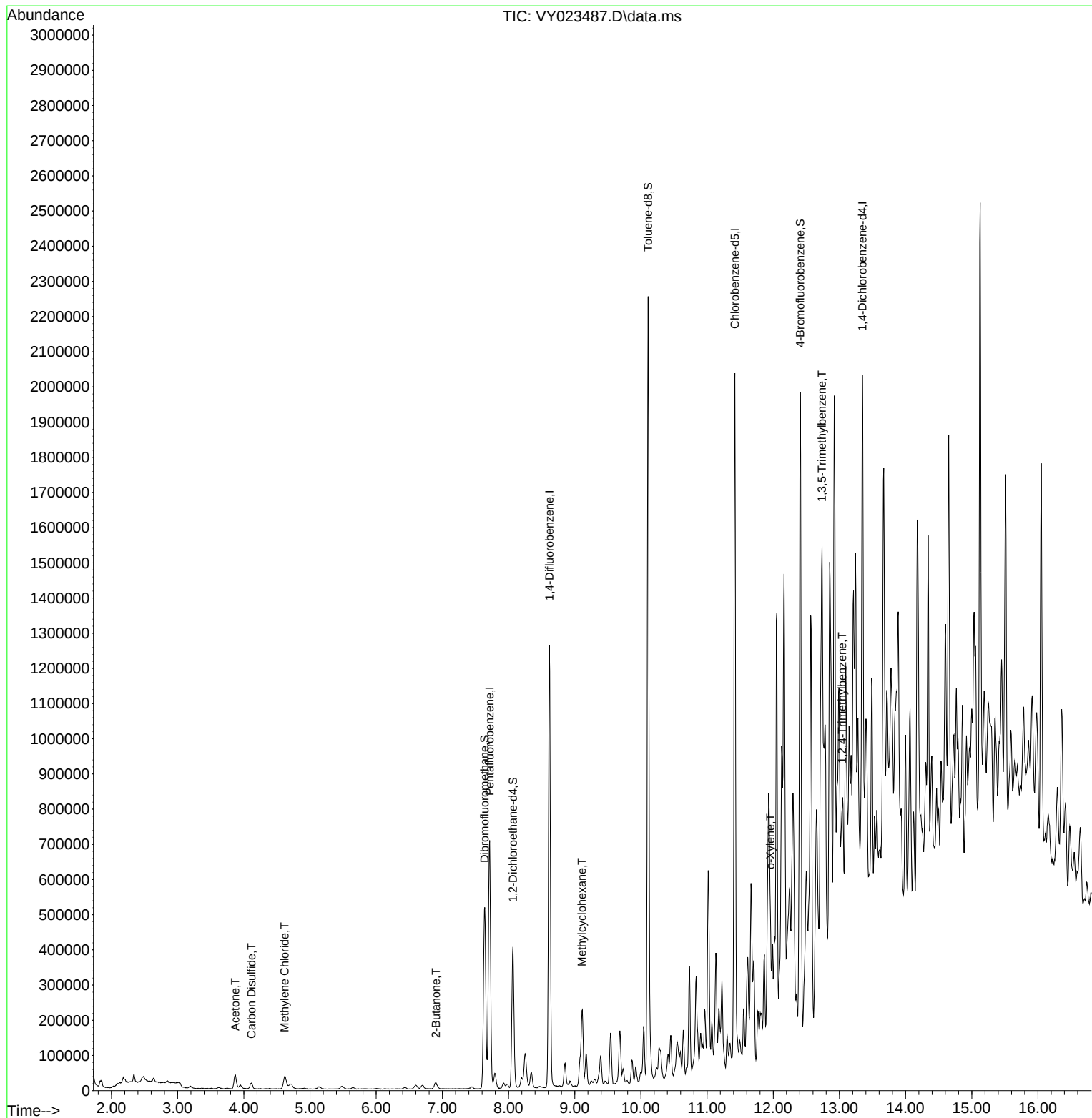
Compound	R.T. QIon		Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.713	168	585385	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	1153355	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	1121069	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	423616	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	303580	62.017	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 124.040%	
35) Dibromofluoromethane	7.640	113	377610	53.283	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 106.560%	
50) Toluene-d8	10.109	98	1364804	51.713	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	= 103.420%	
62) 4-Bromofluorobenzene	12.408	95	458890	52.665	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	= 105.340%	
Target Compounds						Qvalue
16) Acetone	3.873	43	65215	55.961	ug/l	100
17) Carbon Disulfide	4.117	76	34244	2.291	ug/l	100
20) Methylene Chloride	4.616	84	27375	4.344	ug/l	92
25) 2-Butanone	6.903	43	25179	17.698	ug/l	99
39) Methylcyclohexane	9.110	83	71872	5.884	ug/l #	89
69) o-Xylene	11.957	106	36100	2.431	ug/l	95
80) 1,3,5-Trimethylbenzene	12.737	105	61740	2.737	ug/l	96
84) 1,2,4-Trimethylbenzene	13.042	105	63910	2.839	ug/l	97

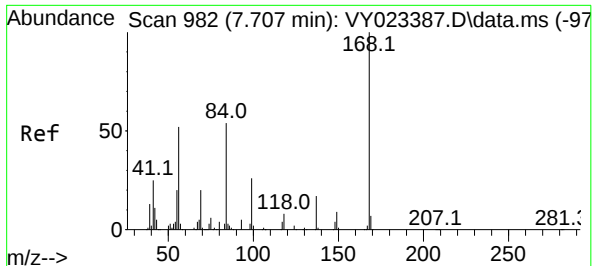
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

Quant Time: Oct 17 01:56:12 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

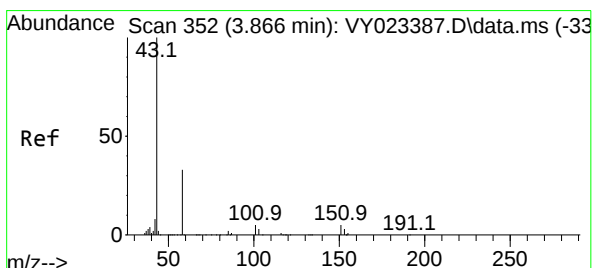
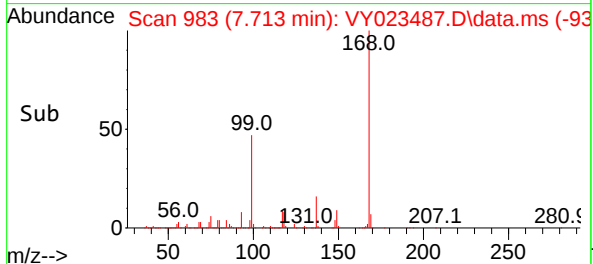
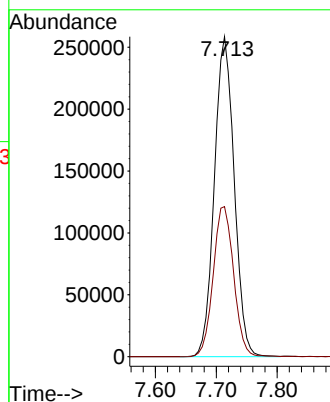
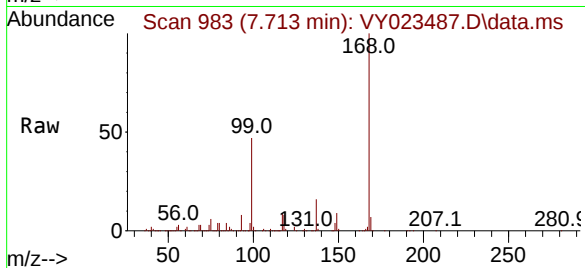




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 91
Delta R.T. 0.006 min
Lab File: VY023487.D
Acq: 16 Oct 2025 13:27

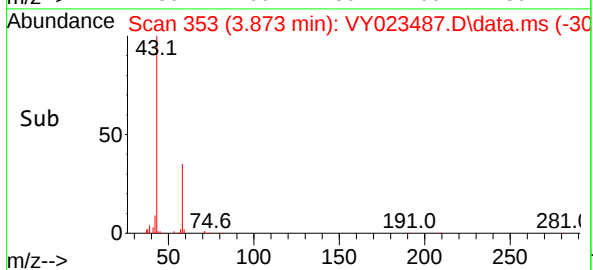
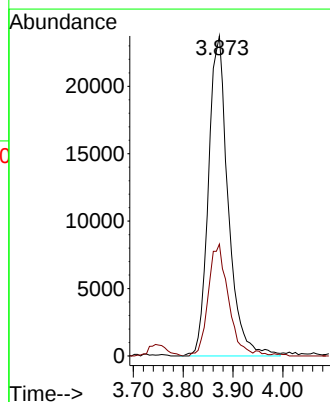
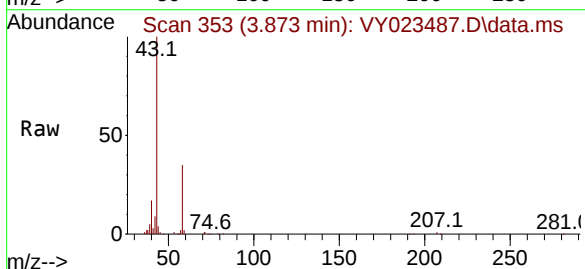
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

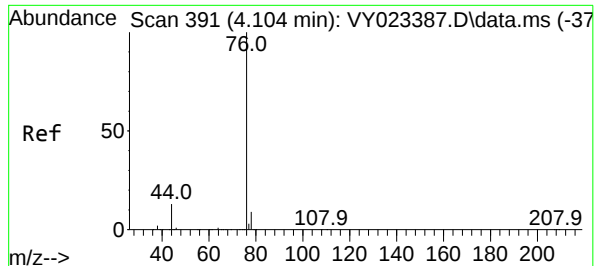
Tgt Ion:168 Resp: 585385
Ion Ratio Lower Upper
168 100
99 46.9 39.7 59.5



#16
Acetone
Concen: 55.961 ug/l
RT: 3.873 min Scan# 353
Delta R.T. 0.006 min
Lab File: VY023487.D
Acq: 16 Oct 2025 13:27

Tgt Ion: 43 Resp: 65215
Ion Ratio Lower Upper
43 100
58 34.7 27.7 41.5

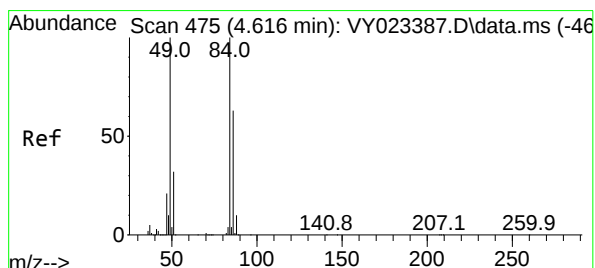
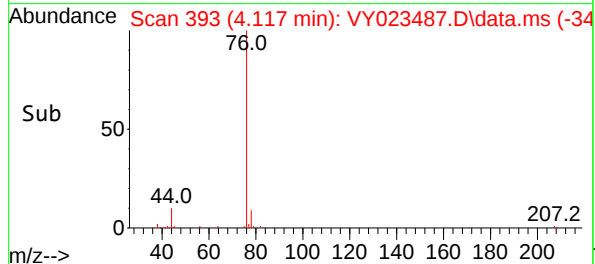
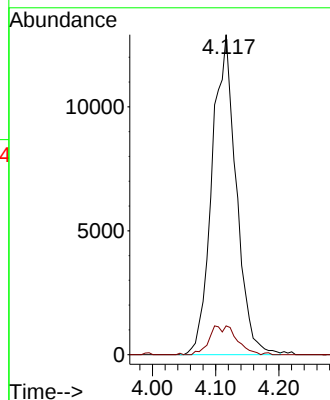
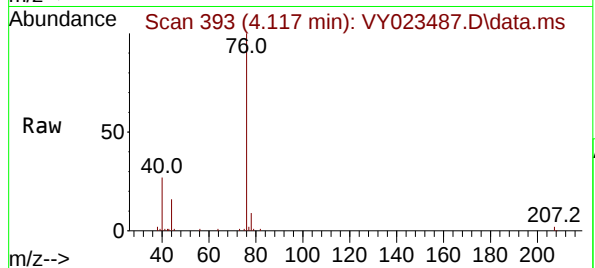




#17
Carbon Disulfide
Concen: 2.291 ug/l
RT: 4.117 min Scan# 391
Delta R.T. 0.012 min
Lab File: VY023487.D
Acq: 16 Oct 2025 13:27

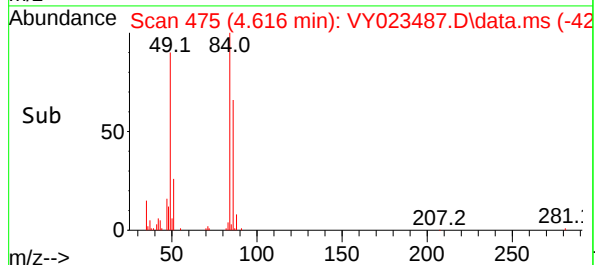
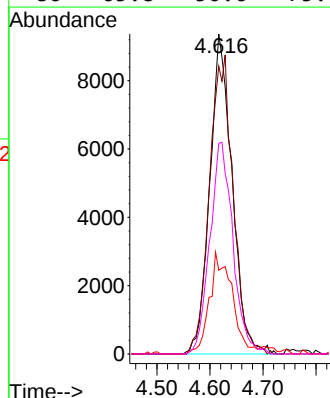
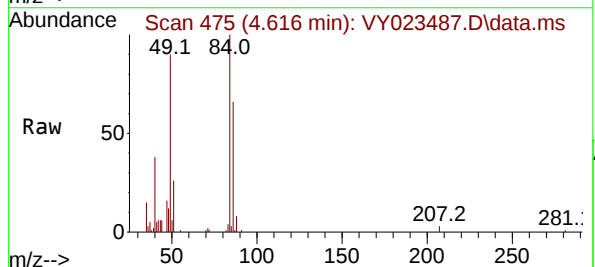
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

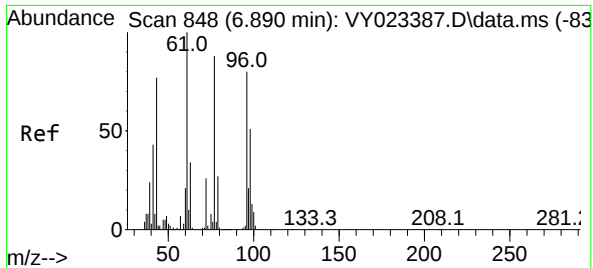
Tgt Ion: 76 Resp: 34244
Ion Ratio Lower Upper
76 100
78 9.0 7.3 10.9



#20
Methylene Chloride
Concen: 4.344 ug/l
RT: 4.616 min Scan# 475
Delta R.T. 0.000 min
Lab File: VY023487.D
Acq: 16 Oct 2025 13:27

Tgt Ion: 84 Resp: 27375
Ion Ratio Lower Upper
84 100
49 89.9 80.2 120.4
51 26.2 25.9 38.9
86 65.8 50.6 75.8





#25

2-Butanone

Concen: 17.698 ug/l

RT: 6.903 min Scan# 848

Delta R.T. 0.012 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

Instrument :

MSVOA_Y

ClientSampleId :

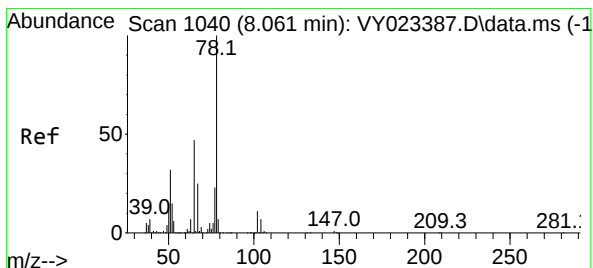
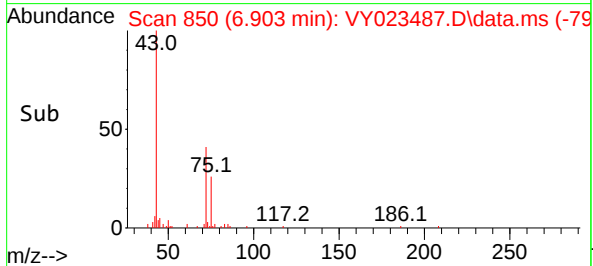
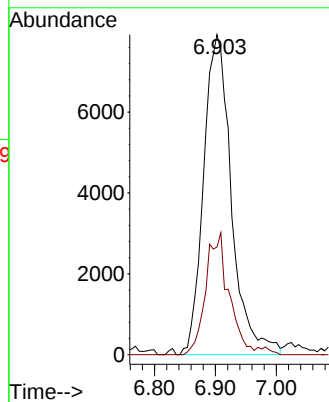
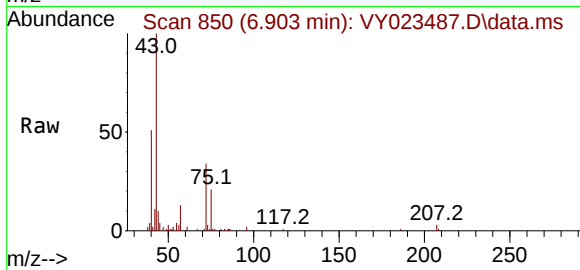
PR132-SO1-039085-20251015

Tgt Ion: 43 Resp: 25179

Ion Ratio Lower Upper

43 100

72 33.6 27.4 41.2



#33

1,2-Dichloroethane-d4

Concen: 62.017 ug/l

RT: 8.067 min Scan# 1041

Delta R.T. 0.006 min

Lab File: VY023487.D

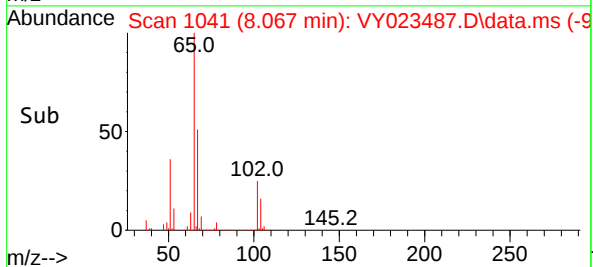
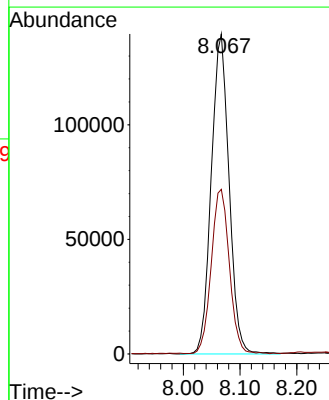
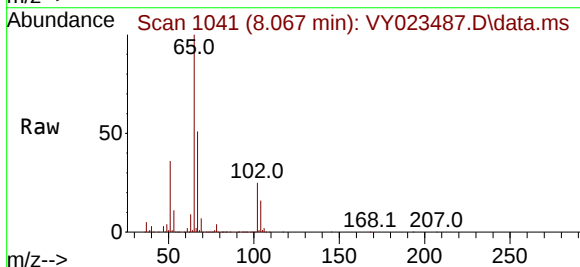
Acq: 16 Oct 2025 13:27

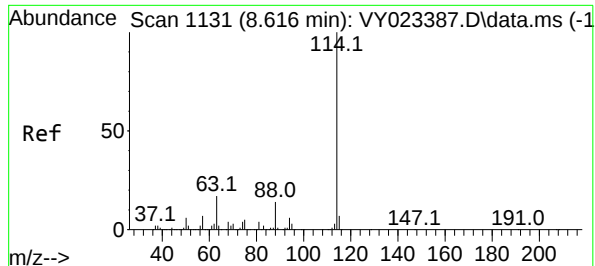
Tgt Ion: 65 Resp: 303580

Ion Ratio Lower Upper

65 100

67 52.2 0.0 105.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO1-039085-20251015

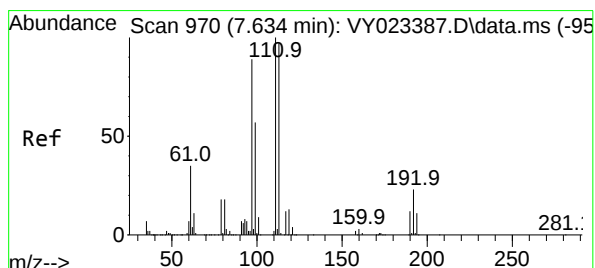
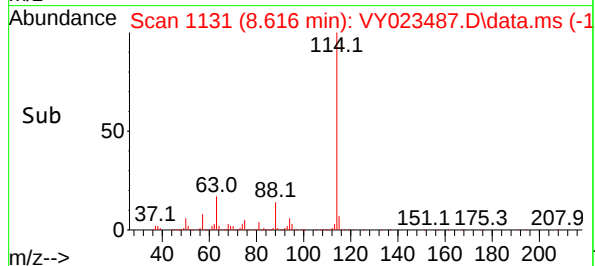
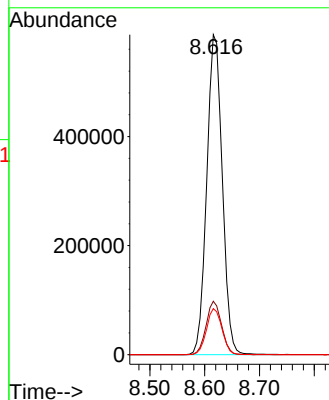
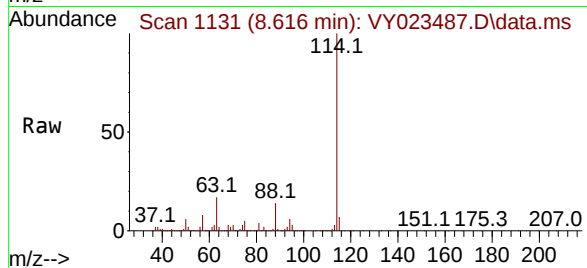
Tgt Ion:114 Resp: 1153355

Ion Ratio Lower Upper

114 100

63 16.7 0.0 34.2

88 14.4 0.0 28.4



#35

Dibromofluoromethane

Concen: 53.283 ug/l

RT: 7.640 min Scan# 971

Delta R.T. 0.006 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

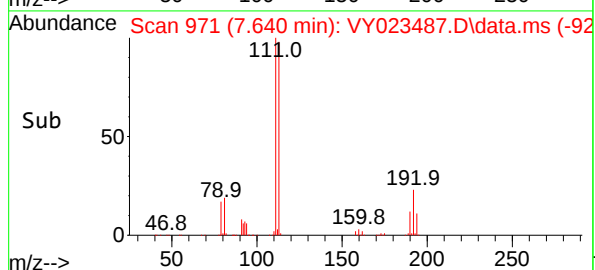
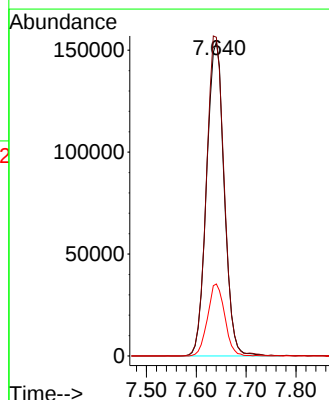
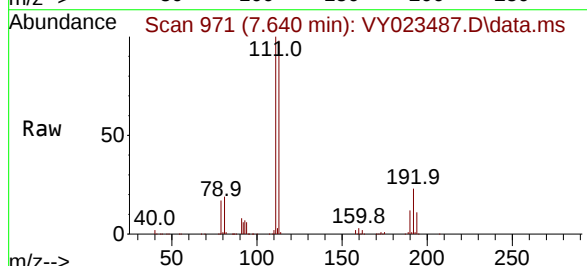
Tgt Ion:113 Resp: 377610

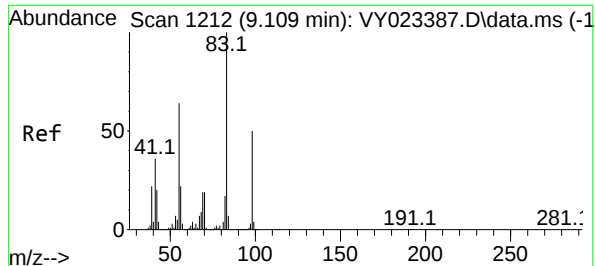
Ion Ratio Lower Upper

113 100

111 102.3 81.8 122.6

192 22.3 18.0 27.0





#39

Methylcyclohexane

Concen: 5.884 ug/l

RT: 9.110 min Scan# 11

Delta R.T. 0.000 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO1-039085-20251015

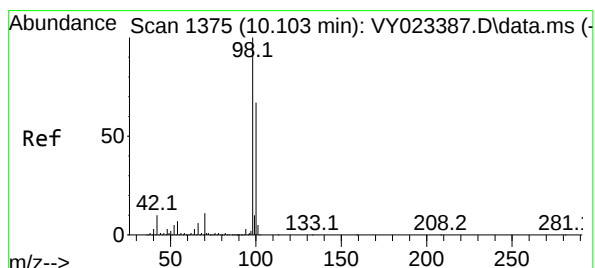
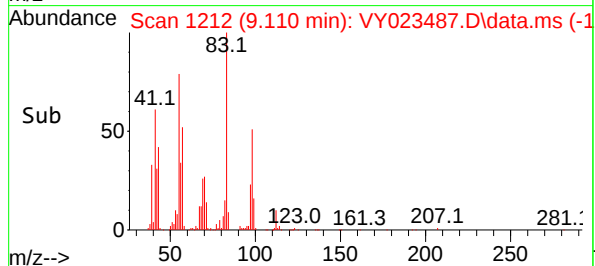
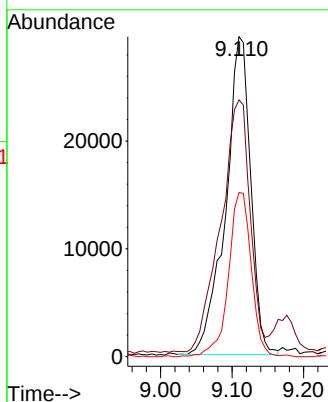
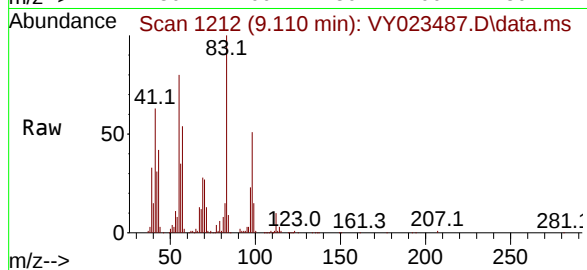
Tgt Ion: 83 Resp: 71872

Ion Ratio Lower Upper

83 100

55 79.2 51.4 77.2#

98 51.7 40.4 60.6



#50

Toluene-d8

Concen: 51.713 ug/l

RT: 10.109 min Scan# 1376

Delta R.T. 0.006 min

Lab File: VY023487.D

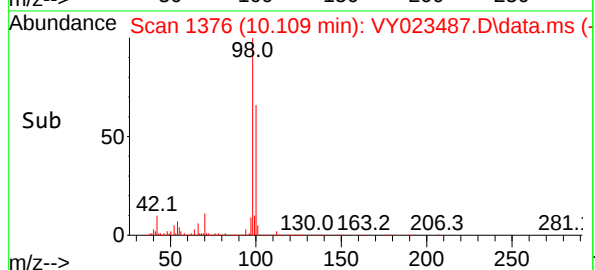
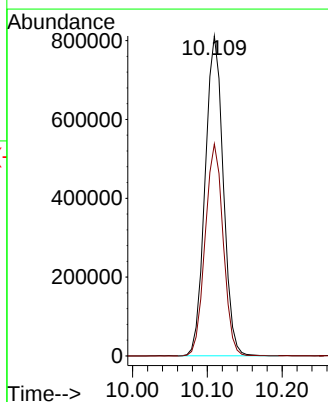
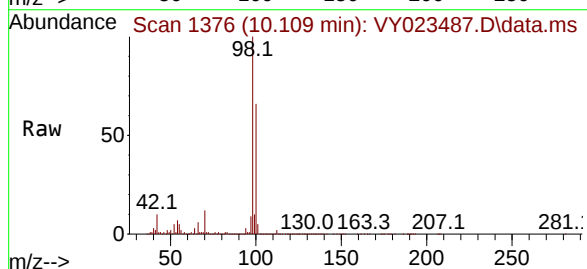
Acq: 16 Oct 2025 13:27

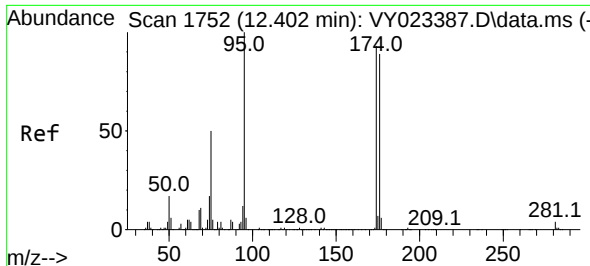
Tgt Ion: 98 Resp: 1364804

Ion Ratio Lower Upper

98 100

100 66.1 53.0 79.4





#62

4-Bromofluorobenzene

Concen: 52.665 ug/l

RT: 12.408 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO1-039085-20251015

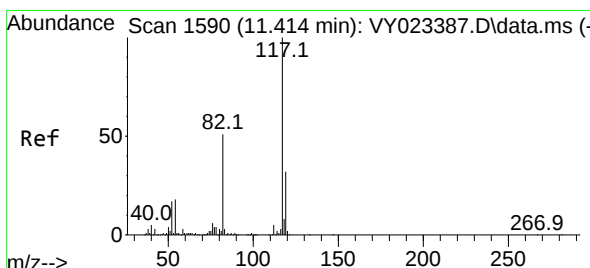
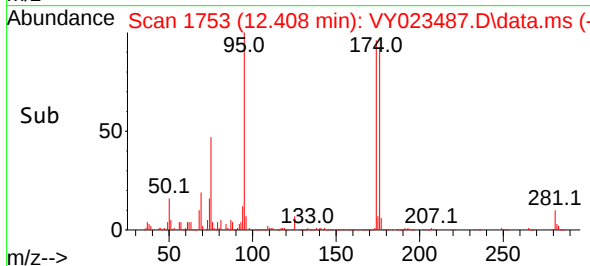
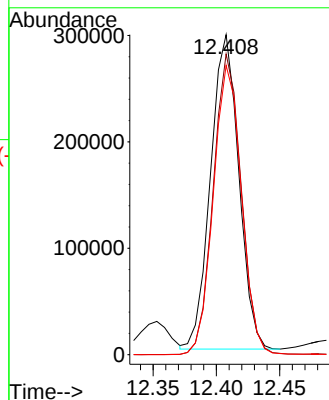
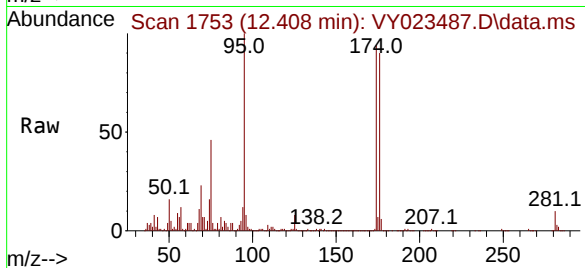
Tgt Ion: 95 Resp: 458890

Ion Ratio Lower Upper

95 100

174 94.6 0.0 192.8

176 91.8 0.0 187.6



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 1591

Delta R.T. 0.006 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

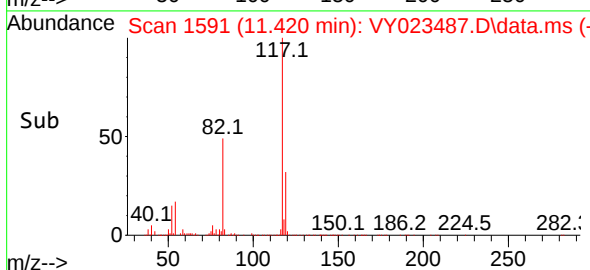
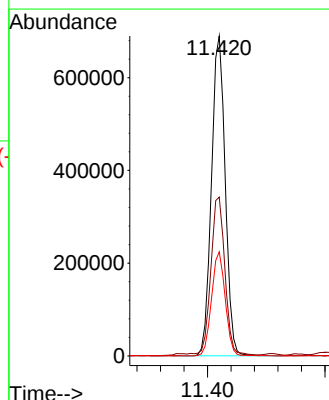
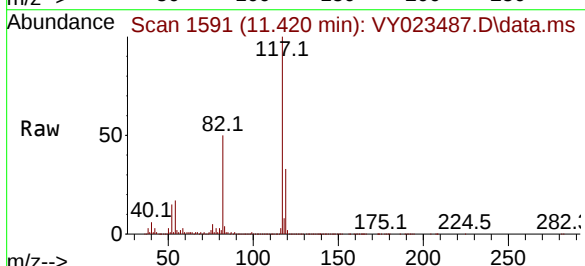
Tgt Ion: 117 Resp: 1121069

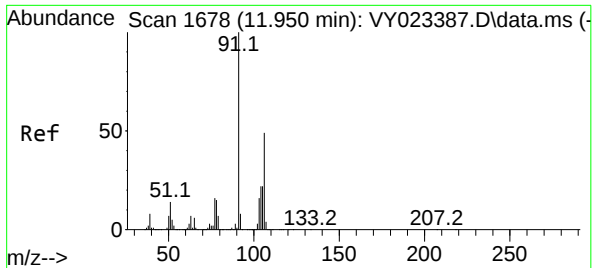
Ion Ratio Lower Upper

117 100

82 49.3 41.0 61.4

119 32.5 25.6 38.4





#69

o-Xylene

Concen: 2.431 ug/l

RT: 11.957 min Scan# 1

Delta R.T. 0.006 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

Instrument :

MSVOA_Y

ClientSampleId :

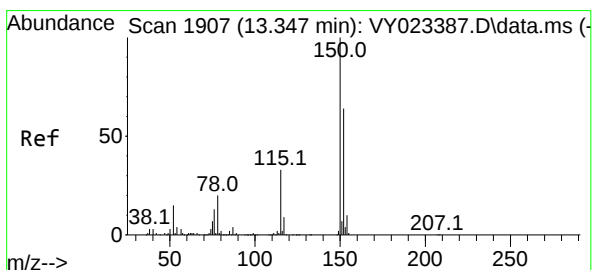
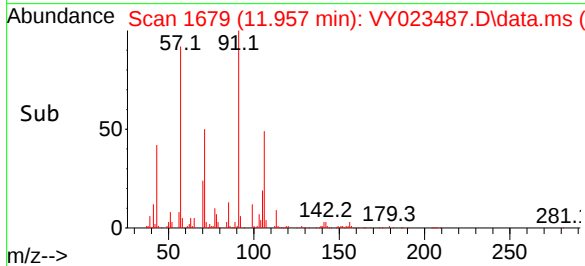
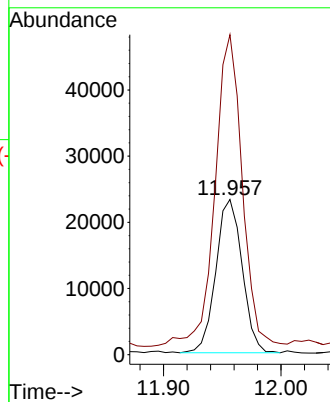
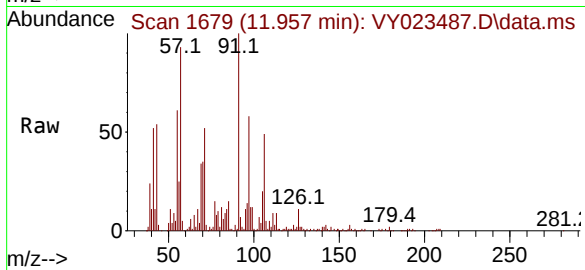
PR132-SO1-039085-20251015

Tgt Ion:106 Resp: 36100

Ion Ratio Lower Upper

106 100

91 210.8 101.4 304.1



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.347 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

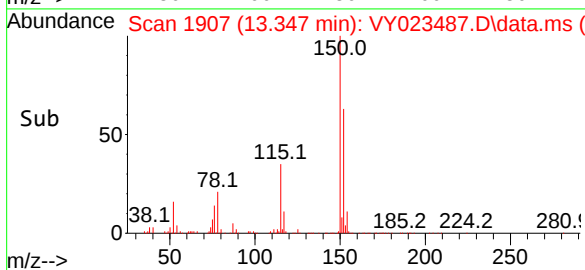
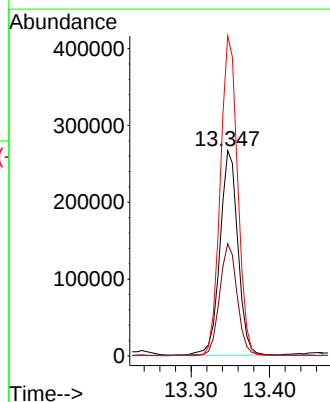
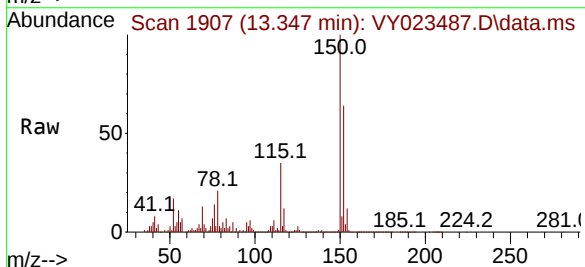
Tgt Ion:152 Resp: 423616

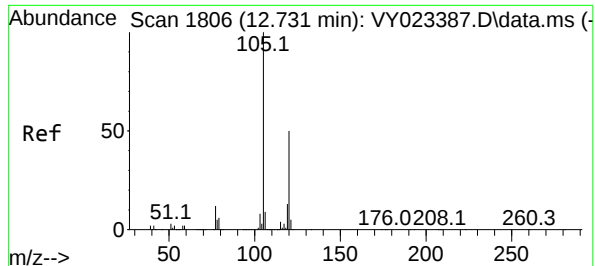
Ion Ratio Lower Upper

152 100

115 53.9 27.1 81.2

150 151.1 0.0 347.4





#80

1,3,5-Trimethylbenzene

Concen: 2.737 ug/l

RT: 12.737 min Scan# 1806

Delta R.T. 0.006 min

Lab File: VY023487.D

Acq: 16 Oct 2025 13:27

Instrument :

MSVOA_Y

ClientSampleId :

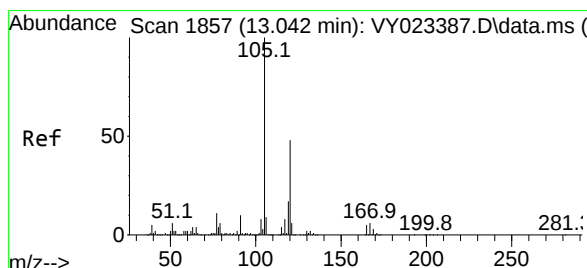
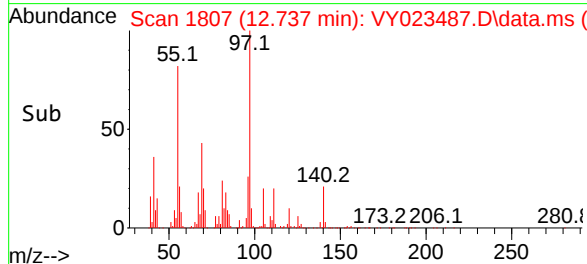
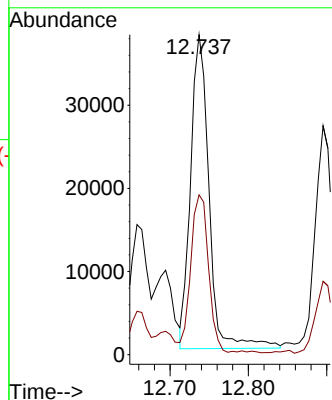
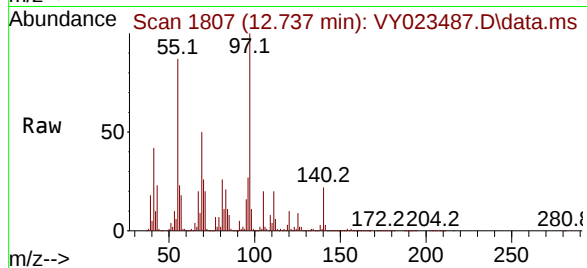
PR132-SO1-039085-20251015

Tgt Ion:105 Resp: 61740

Ion Ratio Lower Upper

105 100

120 48.0 25.4 76.4



#84

1,2,4-Trimethylbenzene

Concen: 2.839 ug/l

RT: 13.042 min Scan# 1857

Delta R.T. 0.000 min

Lab File: VY023487.D

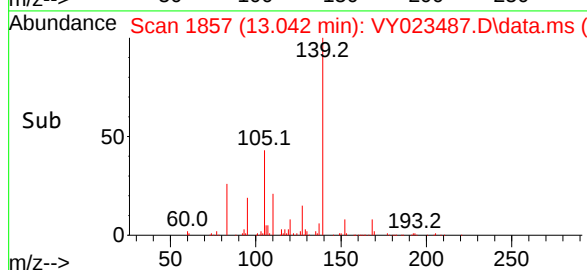
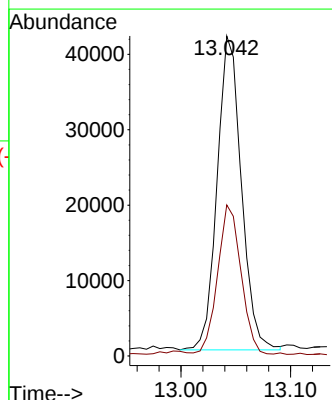
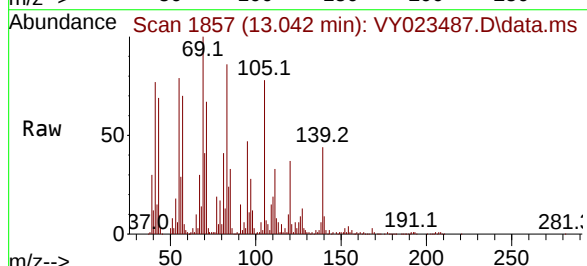
Acq: 16 Oct 2025 13:27

Tgt Ion:105 Resp: 63910

Ion Ratio Lower Upper

105 100

120 45.7 23.8 71.2



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs : 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M

Title : SW846 8260

Signal : TIC: VY023487.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.873	344	353	360	rBV	38912	102665	2.63%	0.130%
2	4.117	384	393	405	rVB2	16367	45870	1.17%	0.058%
3	4.616	462	475	484	rBV3	35429	122390	3.13%	0.156%
4	6.903	838	850	862	rBV4	18033	58648	1.50%	0.075%
5	7.640	960	971	977	rBV	515055	1278379	32.70%	1.625%
6	7.713	977	983	991	rVV	705110	1621831	41.48%	2.061%
7	7.793	991	996	1006	rVB3	42800	109925	2.81%	0.140%
8	8.067	1032	1041	1053	rBV	399807	893287	22.85%	1.135%
9	8.201	1053	1063	1065	rVV4	28302	62612	1.60%	0.080%
10	8.250	1065	1071	1080	rVV	96854	268609	6.87%	0.341%
11	8.341	1080	1086	1096	rVB	44325	104119	2.66%	0.132%
12	8.616	1122	1131	1143	rBV	1257917	2479394	63.42%	3.151%
13	8.853	1162	1170	1177	rBV	65739	145325	3.72%	0.185%
14	9.116	1199	1213	1218	rBV3	216615	600506	15.36%	0.763%
15	9.170	1218	1222	1230	rVB	88964	173266	4.43%	0.220%
16	9.390	1249	1258	1265	rVB4	77391	185088	4.73%	0.235%
17	9.542	1276	1283	1291	rVB3	145629	294123	7.52%	0.374%
18	9.683	1296	1306	1311	rBV3	149667	332226	8.50%	0.422%
19	9.731	1311	1314	1320	rVB2	37734	64763	1.66%	0.082%
20	9.865	1330	1336	1341	rBV2	65017	126436	3.23%	0.161%
21	9.920	1341	1345	1352	rVB4	40520	73197	1.87%	0.093%
22	10.042	1360	1365	1370	rVB	136960	219082	5.60%	0.278%
23	10.109	1370	1376	1390	rVB	2223027	3909655	100.00%	4.968%
24	10.237	1392	1397	1399	rBV4	26915	48177	1.23%	0.061%
25	10.274	1399	1403	1406	rBV2	62576	113468	2.90%	0.144%
26	10.408	1416	1425	1428	rBV3	69028	152244	3.89%	0.193%
27	10.451	1428	1432	1438	rVB2	114498	192017	4.91%	0.244%
28	10.548	1440	1448	1453	rBV5	88522	243305	6.22%	0.309%
29	10.640	1459	1463	1468	rVB	124629	192799	4.93%	0.245%
30	10.731	1473	1478	1484	rVB	296165	484669	12.40%	0.616%
31	10.835	1484	1495	1502	rBV2	266955	626159	16.02%	0.796%
32	10.902	1502	1506	1509	rVV3	78891	119627	3.06%	0.152%
33	10.963	1513	1516	1520	rVV	135970	204828	5.24%	0.260%
34	11.018	1520	1525	1531	rVV2	522331	911126	23.30%	1.158%
35	11.073	1531	1534	1538	rVB	94655	124617	3.19%	0.158%
36	11.134	1538	1544	1548	rBV3	290421	500691	12.81%	0.636%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs : 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M
Title : SW846 8260

37	11.176	1548	1551	1555	rVV4	103662	171851	4.40%	0.218%
38	11.225	1555	1559	1568	rVB	247155	467761	11.96%	0.594%
39	11.304	1568	1572	1575	rBV2	89177	143946	3.68%	0.183%
40	11.347	1576	1579	1582	rVB4	41739	55433	1.42%	0.070%
41	11.420	1584	1591	1600	rBV	1944849	3311264	84.69%	4.208%
42	11.493	1600	1603	1609	rVB2	40297	55964	1.43%	0.071%
43	11.554	1609	1613	1617	rBV	130813	197270	5.05%	0.251%
44	11.609	1617	1622	1627	rBV4	252298	539533	13.80%	0.686%
45	11.664	1627	1631	1635	rVV	391626	665942	17.03%	0.846%
46	11.707	1635	1638	1643	rVB2	281954	463201	11.85%	0.589%
47	11.768	1643	1648	1651	rBV	137954	249950	6.39%	0.318%
48	11.804	1651	1654	1655	rBV	49709	48521	1.24%	0.062%
49	11.865	1660	1664	1667	rBV2	207437	279520	7.15%	0.355%
50	11.932	1667	1675	1682	rBV4	661398	1849472	47.31%	2.350%
51	11.987	1682	1684	1686	rVB3	99476	78841	2.02%	0.100%
52	12.018	1686	1689	1690	rBV	122576	124622	3.19%	0.158%
53	12.054	1690	1695	1699	rVB	1094493	1605861	41.07%	2.041%
54	12.127	1699	1707	1709	rBV4	717013	1295866	33.15%	1.647%
55	12.164	1709	1713	1718	rVB3	1094515	1938152	49.57%	2.463%
56	12.298	1730	1735	1742	rVB6	589310	1391997	35.60%	1.769%
57	12.408	1746	1753	1759	rVB3	1803818	3297285	84.34%	4.190%
58	12.499	1759	1768	1772	rBV6	443022	1188288	30.39%	1.510%
59	12.566	1775	1779	1786	rVB3	1142214	2147726	54.93%	2.729%
60	12.652	1786	1793	1799	rBV5	591132	1629501	41.68%	2.071%
61	12.737	1799	1807	1811	rBV5	1087006	2765457	70.73%	3.514%
62	12.853	1821	1826	1833	rBV2	1066685	2560202	65.48%	3.253%
63	12.926	1833	1838	1842	rVV	1411596	2377540	60.81%	3.021%
64	12.993	1846	1849	1853	rVB3	459092	707134	18.09%	0.899%
65	13.097	1862	1866	1871	rBV	589478	1053996	26.96%	1.339%
66	13.145	1871	1874	1877	rVV2	411725	645348	16.51%	0.820%
67	13.212	1881	1885	1887	rVV2	785434	1304493	33.37%	1.658%
68	13.243	1888	1890	1893	rVV2	886642	1148298	29.37%	1.459%
69	13.280	1893	1896	1901	rVV4	411442	650713	16.64%	0.827%
70	13.347	1902	1907	1912	rVV	1375064	2324378	59.45%	2.954%
71	13.401	1913	1916	1922	rVB3	448986	872142	22.31%	1.108%
72	13.487	1926	1930	1934	rVB3	555139	801235	20.49%	1.018%
73	13.529	1935	1937	1940	rBV2	128236	151030	3.86%	0.192%
74	13.670	1954	1960	1964	rBV4	1070362	2006178	51.31%	2.549%
75	13.718	1965	1968	1972	rVV3	247526	427176	10.93%	0.543%
76	13.859	1985	1991	1992	rBV5	276951	555764	14.22%	0.706%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M
Title : SW846 8260

77	13.999	2010	2014	2018	rVB2	444569	639693	16.36%	0.813%
78	14.066	2019	2025	2030	rVB5	515612	1016463	26.00%	1.292%
79	14.121	2031	2034	2038	rVB5	225135	313418	8.02%	0.398%
80	14.176	2038	2043	2050	rBV4	1055357	2411225	61.67%	3.064%
81	14.340	2066	2070	2074	rVB2	841583	1142961	29.23%	1.452%
82	14.535	2099	2102	2106	rBV6	240297	419352	10.73%	0.533%
83	14.602	2108	2113	2117	rVV4	599416	1213249	31.03%	1.542%
84	14.651	2117	2121	2127	rVB2	1110145	1825616	46.70%	2.320%
85	14.767	2137	2140	2143	rBV	246129	318205	8.14%	0.404%
86	14.858	2152	2155	2159	rVB3	419402	593581	15.18%	0.754%
87	14.919	2162	2165	2168	rBV2	221960	311592	7.97%	0.396%
88	15.035	2181	2184	2186	rBV	263122	344274	8.81%	0.437%
89	15.127	2194	2199	2205	rBV	1693204	2631034	67.30%	3.343%
90	15.352	2232	2236	2242	rBV5	280098	657768	16.82%	0.836%
91	15.511	2257	2262	2268	rVB3	954035	1677306	42.90%	2.131%
92	16.047	2346	2350	2357	rVB	1072636	1797354	45.97%	2.284%
93	16.358	2397	2401	2407	rVB3	352671	644618	16.49%	0.819%

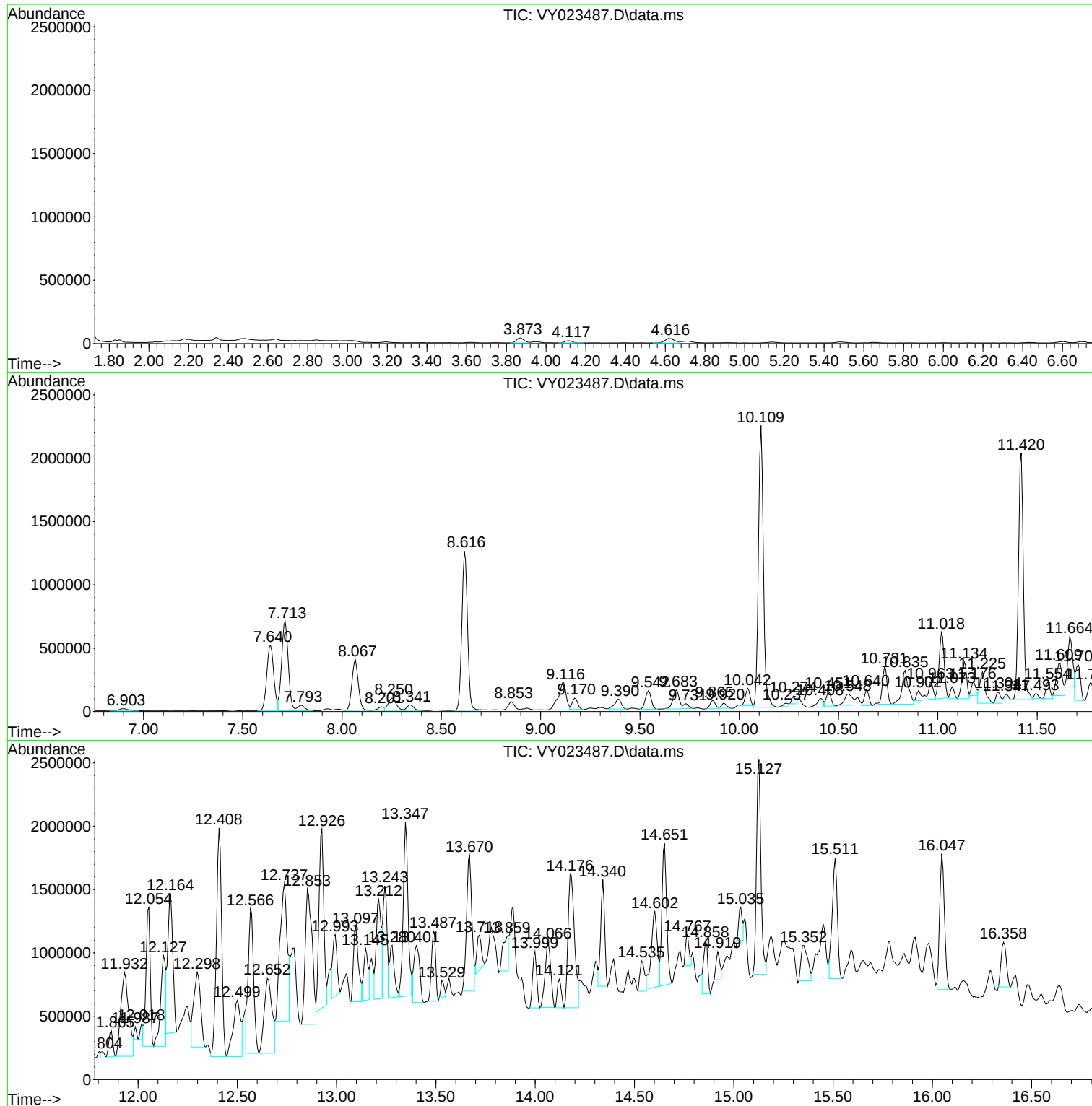
Sum of corrected areas: 78691683

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

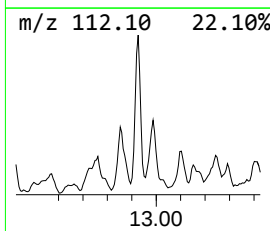
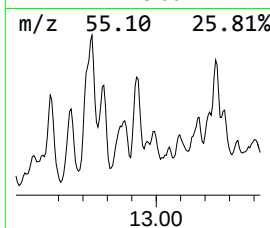
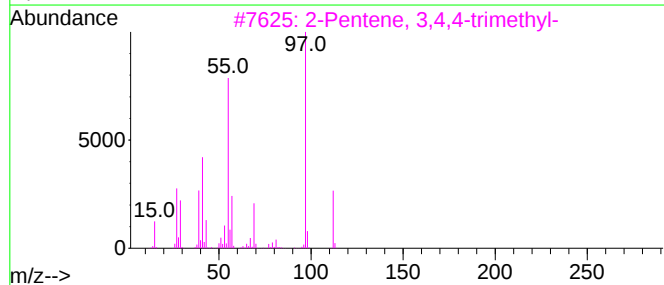
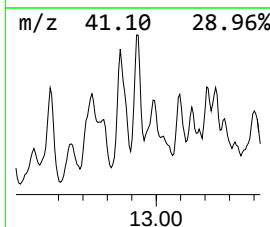
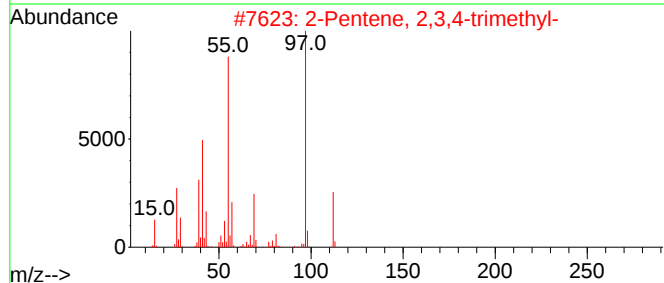
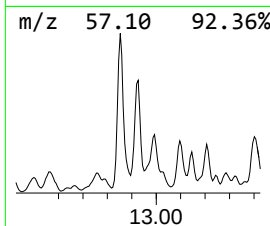
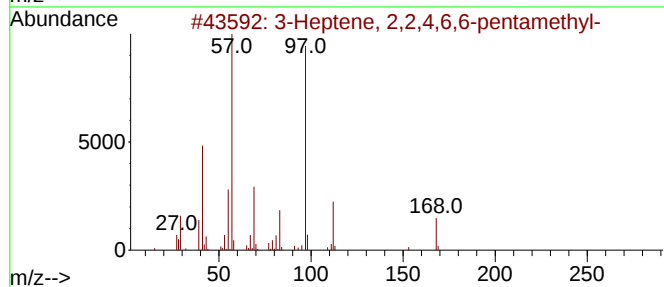
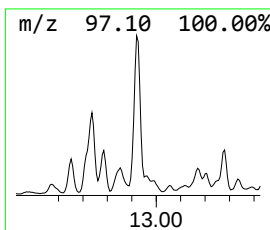
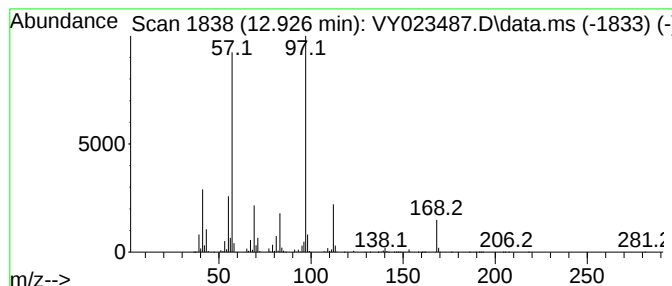
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 4 3-Heptene, 2,2,4,6,6-pentam... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.926	51.14 ug/l	2377540	1,4-Dichlorobenzene-d4	13.347

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			3-Heptene, 2,2,4,6,6-pentamethyl-	168	C12H24	000123-48-8	95
2			2-Pentene, 2,3,4-trimethyl-	112	C8H16	000565-77-5	64
3			2-Pentene, 3,4,4-trimethyl-	112	C8H16	000598-96-9	59
4			2-Pentene, 2,4,4-trimethyl-	112	C8H16	000107-40-4	59
5			Cyclohexane, 1,3-dimethyl-	112	C8H16	000591-21-9	58



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

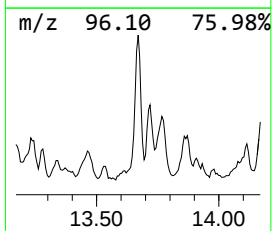
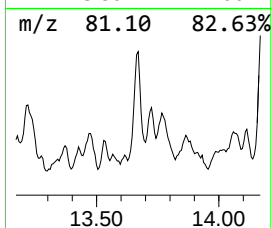
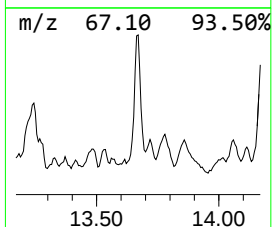
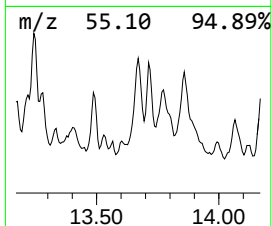
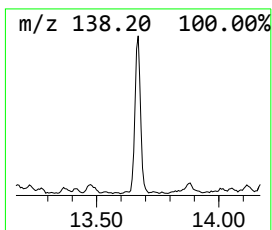
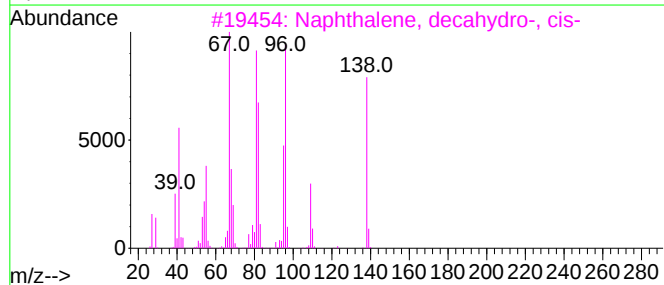
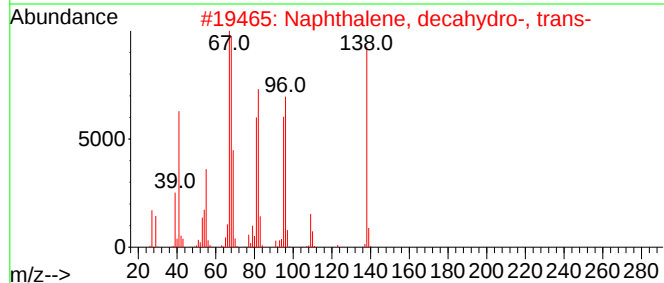
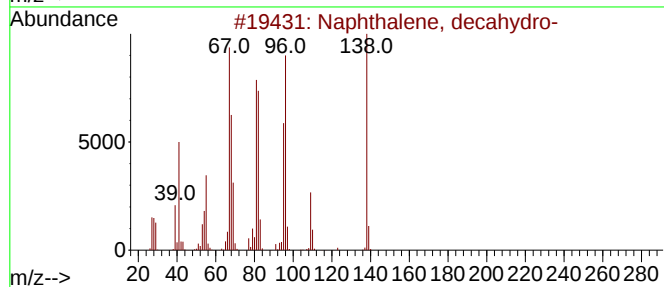
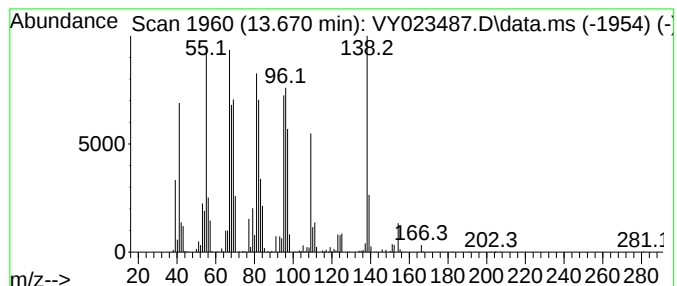
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 5 Naphthalene, decahydro- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.670	43.16 ug/l	2006180	1,4-Dichlorobenzene-d4	13.347

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Naphthalene, decahydro-	138	C10H18	000091-17-8	94
2			Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	90
3			Naphthalene, decahydro-, cis-	138	C10H18	000493-01-6	81
4			2,2-Dimethyl-3-vinylcyclopentanone	138	C9H14O	1000427-24-5	72
5			Spiro[4.5]decane	138	C10H18	000176-63-6	72



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

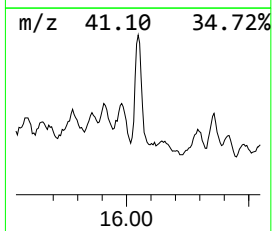
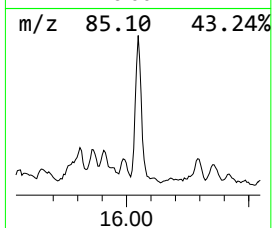
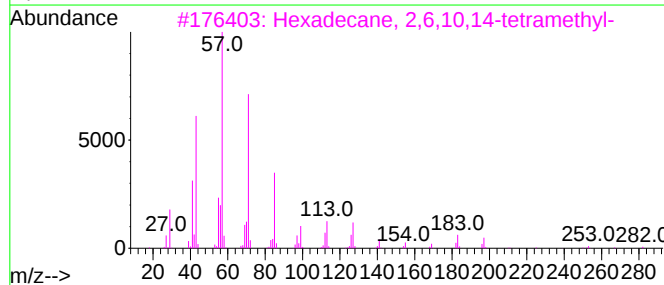
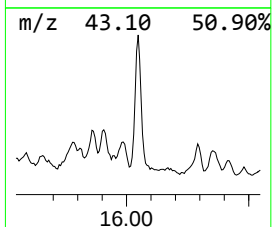
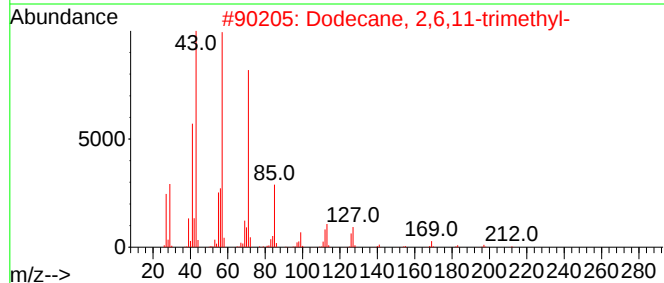
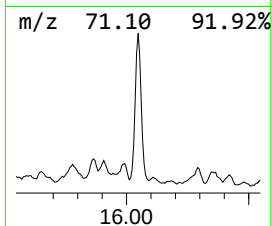
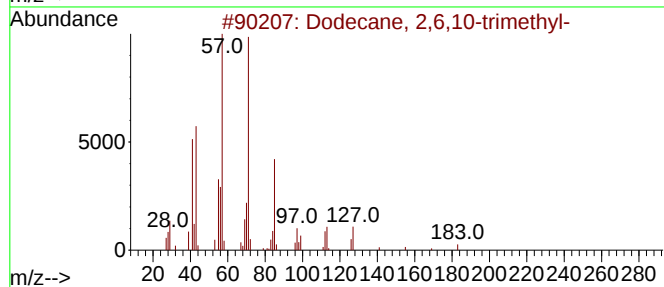
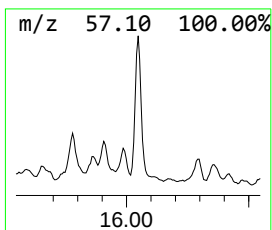
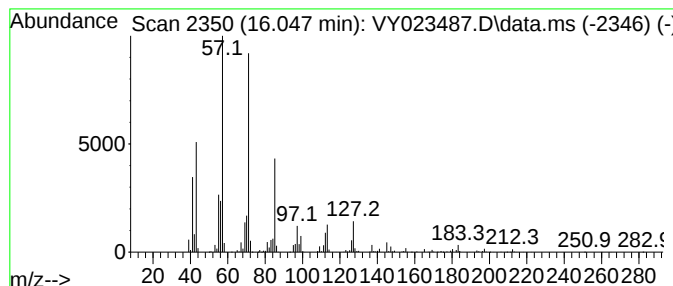
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 10 Dodecane, 2,6,10-trimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.047	38.66 ug/l	1797350	1,4-Dichlorobenzene-d4	13.347

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	91
2			Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	86
3			Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	86
4			Octane, 2-methyl-	128	C9H20	003221-61-2	81
5			Tetradecane, 4-methyl-	212	C15H32	025117-24-2	80



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023487.D
Acq On : 16 Oct 2025 13:27
Operator : SY/MD
Sample : Q3363-02
Misc : 4.15g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO1-039085-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
3-Heptene, 2,2,...	12.926	51.1	ug/l	2377540	4	13.347	2324380	50.0
Naphthalene, de...	13.670	43.2	ug/l	2006180	4	13.347	2324380	50.0
Dodecane, 2,6,1...	16.047	38.7	ug/l	1797350	4	13.347	2324380	50.0

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: PR132-SO3-028010-202510
 Lab Sample ID: Q3363-03
 Analytical Method: 8260D
 Sample Wt/Vol: 3.6 g

Level: LOW
 Final Vol: 5000 uL

Date Collected: 10/15/25
 Date Received: 10/15/25
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 54.8
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	12.7	U	1	2.90	12.7	ug/Kg	10/16/25 13:51	VY101625
74-87-3	Chloromethane	12.7	U	1	2.90	12.7	ug/Kg	10/16/25 13:51	VY101625
75-01-4	Vinyl Chloride	12.7	U	1	2.00	12.7	ug/Kg	10/16/25 13:51	VY101625
74-83-9	Bromomethane	12.7	U	1	2.70	12.7	ug/Kg	10/16/25 13:51	VY101625
75-00-3	Chloroethane	12.7	U	1	3.20	12.7	ug/Kg	10/16/25 13:51	VY101625
75-69-4	Trichlorofluoromethane	12.7	U	1	3.10	12.7	ug/Kg	10/16/25 13:51	VY101625
76-13-1	1,1,2-Trichlorotrifluoroethane	12.7	U	1	2.70	12.7	ug/Kg	10/16/25 13:51	VY101625
75-35-4	1,1-Dichloroethene	12.7	U	1	2.50	12.7	ug/Kg	10/16/25 13:51	VY101625
67-64-1	Acetone	110		1	12.0	63.4	ug/Kg	10/16/25 13:51	VY101625
75-15-0	Carbon Disulfide	6.50	J	1	2.70	12.7	ug/Kg	10/16/25 13:51	VY101625
1634-04-4	Methyl tert-butyl Ether	12.7	U	1	1.90	12.7	ug/Kg	10/16/25 13:51	VY101625
79-20-9	Methyl Acetate	12.7	U	1	3.90	12.7	ug/Kg	10/16/25 13:51	VY101625
75-09-2	Methylene Chloride	25.3	U	1	8.90	25.3	ug/Kg	10/16/25 13:51	VY101625
156-60-5	trans-1,2-Dichloroethene	12.7	U	1	2.20	12.7	ug/Kg	10/16/25 13:51	VY101625
75-34-3	1,1-Dichloroethane	12.7	U	1	2.00	12.7	ug/Kg	10/16/25 13:51	VY101625
110-82-7	Cyclohexane	12.7	U	1	2.00	12.7	ug/Kg	10/16/25 13:51	VY101625
78-93-3	2-Butanone	37.1	J	1	16.6	63.4	ug/Kg	10/16/25 13:51	VY101625
56-23-5	Carbon Tetrachloride	12.7	U	1	2.50	12.7	ug/Kg	10/16/25 13:51	VY101625
156-59-2	cis-1,2-Dichloroethene	12.7	U	1	1.90	12.7	ug/Kg	10/16/25 13:51	VY101625
74-97-5	Bromochloromethane	12.7	U	1	2.90	12.7	ug/Kg	10/16/25 13:51	VY101625
67-66-3	Chloroform	12.7	U	1	2.10	12.7	ug/Kg	10/16/25 13:51	VY101625
71-55-6	1,1,1-Trichloroethane	12.7	U	1	2.40	12.7	ug/Kg	10/16/25 13:51	VY101625
108-87-2	Methylcyclohexane	79.7		1	2.30	12.7	ug/Kg	10/16/25 13:51	VY101625
71-43-2	Benzene	4.40	J	1	2.00	12.7	ug/Kg	10/16/25 13:51	VY101625
107-06-2	1,2-Dichloroethane	12.7	U	1	2.00	12.7	ug/Kg	10/16/25 13:51	VY101625
79-01-6	Trichloroethene	12.7	U	1	2.10	12.7	ug/Kg	10/16/25 13:51	VY101625
78-87-5	1,2-Dichloropropane	12.7	U	1	2.30	12.7	ug/Kg	10/16/25 13:51	VY101625
75-27-4	Bromodichloromethane	12.7	U	1	2.00	12.7	ug/Kg	10/16/25 13:51	VY101625
108-10-1	4-Methyl-2-Pentanone	63.4	U	1	9.10	63.4	ug/Kg	10/16/25 13:51	VY101625
108-88-3	Toluene	12.7	U	1	2.00	12.7	ug/Kg	10/16/25 13:51	VY101625
10061-02-6	t-1,3-Dichloropropene	12.7	U	1	1.60	12.7	ug/Kg	10/16/25 13:51	VY101625
10061-01-5	cis-1,3-Dichloropropene	12.7	U	1	1.60	12.7	ug/Kg	10/16/25 13:51	VY101625
79-00-5	1,1,2-Trichloroethane	12.7	U	1	2.30	12.7	ug/Kg	10/16/25 13:51	VY101625
591-78-6	2-Hexanone	63.4	U	1	9.40	63.4	ug/Kg	10/16/25 13:51	VY101625
124-48-1	Dibromochloromethane	12.7	U	1	2.20	12.7	ug/Kg	10/16/25 13:51	VY101625
106-93-4	1,2-Dibromoethane	12.7	U	1	2.20	12.7	ug/Kg	10/16/25 13:51	VY101625
127-18-4	Tetrachloroethene	12.7	U	1	2.70	12.7	ug/Kg	10/16/25 13:51	VY101625
108-90-7	Chlorobenzene	12.7	U	1	2.30	12.7	ug/Kg	10/16/25 13:51	VY101625
100-41-4	Ethyl Benzene	12.7	U	1	1.70	12.7	ug/Kg	10/16/25 13:51	VY101625
179601-23-1	m/p-Xylenes	5.30	J	1	3.10	25.3	ug/Kg	10/16/25 13:51	VY101625
95-47-6	o-Xylene	12.0	J	1	2.10	12.7	ug/Kg	10/16/25 13:51	VY101625
100-42-5	Styrene	12.7	U	1	1.80	12.7	ug/Kg	10/16/25 13:51	VY101625
75-25-2	Bromoform	12.7	U	1	2.20	12.7	ug/Kg	10/16/25 13:51	VY101625

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: PR132-SO3-028010-202510
 Lab Sample ID: Q3363-03
 Analytical Method: 8260D
 Sample Wt/Vol: 3.6 g

Level : LOW
 Final Vol: 5000 uL

Date Collected: 10/15/25
 Date Received: 10/15/25
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 54.8
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	12.7	U	1	2.00	12.7	ug/Kg	10/16/25 13:51	VY101625
79-34-5	1,1,2,2-Tetrachloroethane	12.7	U	1	3.10	12.7	ug/Kg	10/16/25 13:51	VY101625
541-73-1	1,3-Dichlorobenzene	12.7	U	1	4.30	12.7	ug/Kg	10/16/25 13:51	VY101625
106-46-7	1,4-Dichlorobenzene	12.7	U	1	4.00	12.7	ug/Kg	10/16/25 13:51	VY101625
95-50-1	1,2-Dichlorobenzene	12.7	U	1	3.70	12.7	ug/Kg	10/16/25 13:51	VY101625
96-12-8	1,2-Dibromo-3-Chloropropane	12.7	U	1	4.70	12.7	ug/Kg	10/16/25 13:51	VY101625
120-82-1	1,2,4-Trichlorobenzene	12.7	U	1	7.50	12.7	ug/Kg	10/16/25 13:51	VY101625
87-61-6	1,2,3-Trichlorobenzene	12.7	U	1	8.10	12.7	ug/Kg	10/16/25 13:51	VY101625
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	62.0			63 - 155	124%	SPK: 50		
1868-53-7	Dibromofluoromethane	53.7			70 - 134	107%	SPK: 50		
2037-26-5	Toluene-d8	54.6			74 - 123	109%	SPK: 50		
460-00-4	4-Bromofluorobenzene	59.9			17 - 146	120%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	619000							
540-36-3	1,4-Difluorobenzene	1210000							
3114-55-4	Chlorobenzene-d5	1180000							
3855-82-1	1,4-Dichlorobenzene-d4	476000							
TENTATIVE IDENTIFIED COMPOUNDS									
015869-94-0	Octane, 3,6-dimethyl-	170	J			12.0	ug/Kg		
108-67-8	1,3,5-Trimethylbenzene	12.3	J			12.7	ug/Kg		
000141-70-8	Heptane, 2,2,6,6-tetramethyl-4-met	250	J			12.9	ug/Kg		
000123-48-8	3-Heptene, 2,2,4,6,6-pentamethyl-	240	J			12.9	ug/Kg		
95-63-6	1,2,4-Trimethylbenzene	14.2	J			13.0	ug/Kg		
000091-17-8	Naphthalene, decahydro-	150	J			13.7	ug/Kg		
017301-23-4	Undecane, 2,6-dimethyl-	160	J			14.6	ug/Kg		
002051-30-1	Octane, 2,6-dimethyl-	150	J			15.1	ug/Kg		

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Quant Time: Oct 17 01:56:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.713	168	618759	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	1206292	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	1183423	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	475817	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	320933	62.026	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	124.060%
35) Dibromofluoromethane	7.640	113	398228	53.727	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	107.460%
50) Toluene-d8	10.109	98	1506924	54.592	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	109.180%
62) 4-Bromofluorobenzene	12.408	95	546271	59.943	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	119.880%

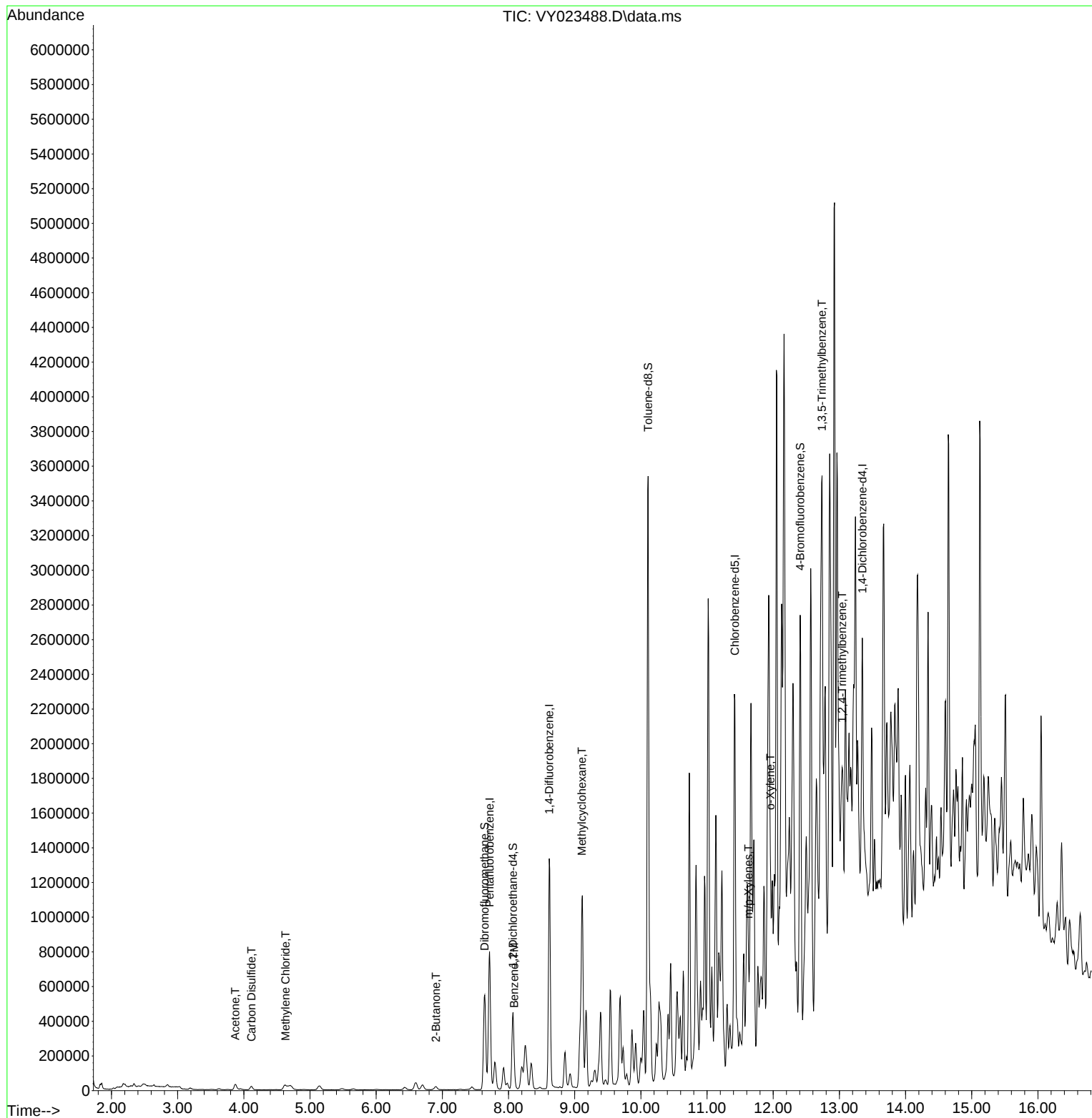
Target Compounds					Qvalue
16) Acetone	3.872	43	52254	42.421	ug/l 95
17) Carbon Disulfide	4.116	76	40643	2.573	ug/l 99
20) Methylene Chloride	4.628	84	18484	2.775	ug/l 92
25) 2-Butanone	6.902	43	22012	14.637	ug/l 90
39) Methylcyclohexane	9.109	83	401744	31.444	ug/l 90
40) Benzene	8.085	78	53508	1.722	ug/l 97
68) m/p-Xylenes	11.627	106	34630	2.072	ug/l # 69
69) o-Xylene	11.956	106	74372	4.745	ug/l 90
80) 1,3,5-Trimethylbenzene	12.737	105	123045	4.856	ug/l 97
84) 1,2,4-Trimethylbenzene	13.042	105	141492	5.595	ug/l 98

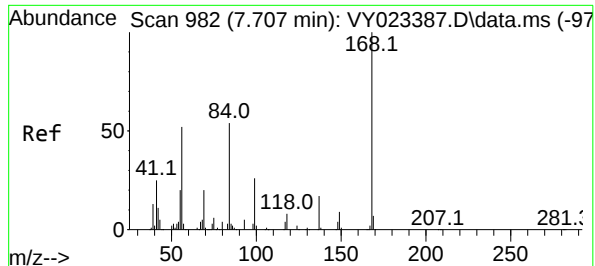
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Quant Time: Oct 17 01:56:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

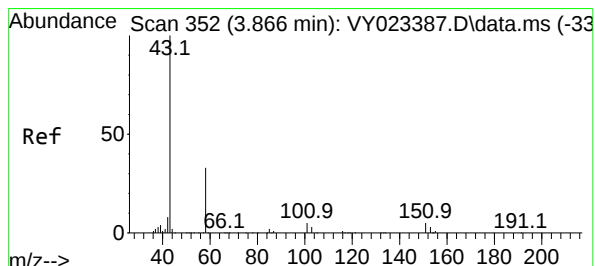
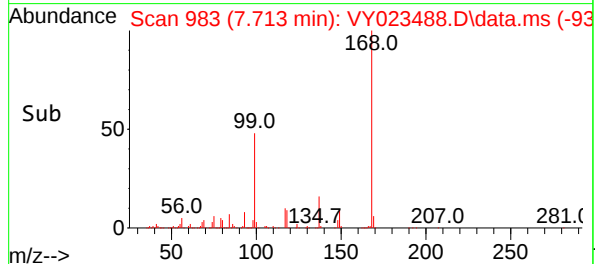
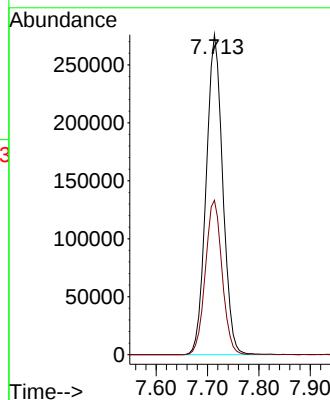
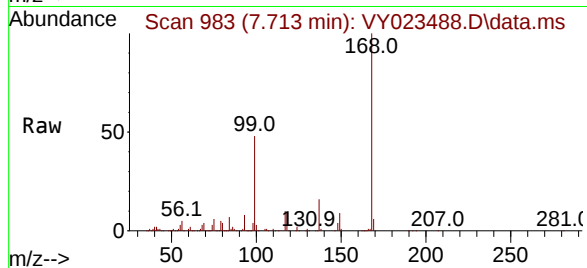




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 91
Delta R.T. 0.006 min
Lab File: VY023488.D
Acq: 16 Oct 2025 13:51

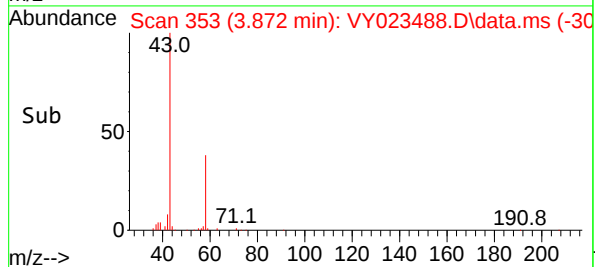
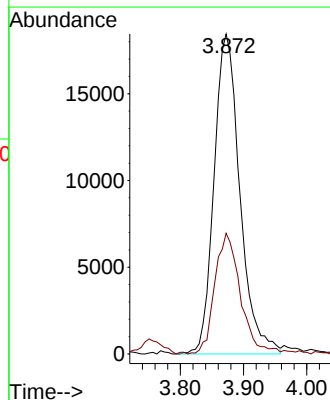
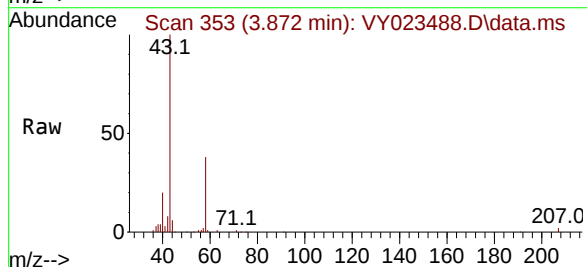
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

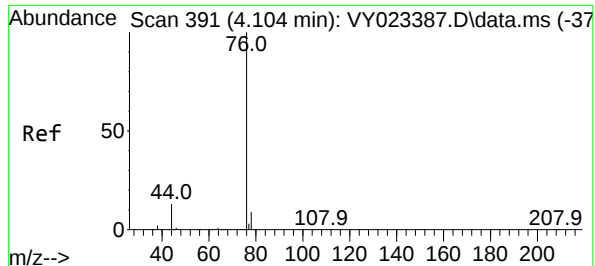
Tgt Ion:168 Resp: 618759
Ion Ratio Lower Upper
168 100
99 48.3 39.7 59.5



#16
Acetone
Concen: 42.421 ug/l
RT: 3.872 min Scan# 353
Delta R.T. 0.006 min
Lab File: VY023488.D
Acq: 16 Oct 2025 13:51

Tgt Ion: 43 Resp: 52254
Ion Ratio Lower Upper
43 100
58 37.2 27.7 41.5

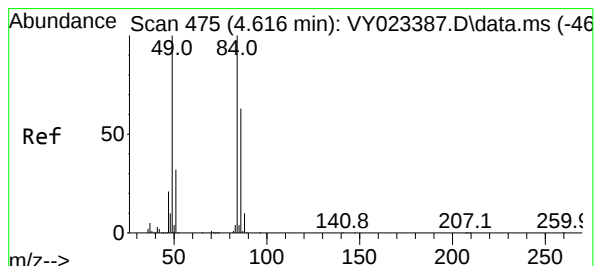
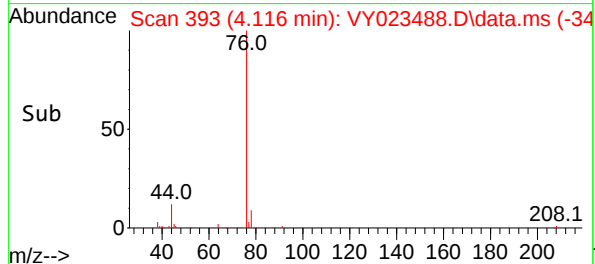
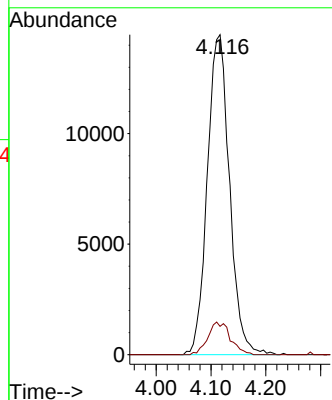
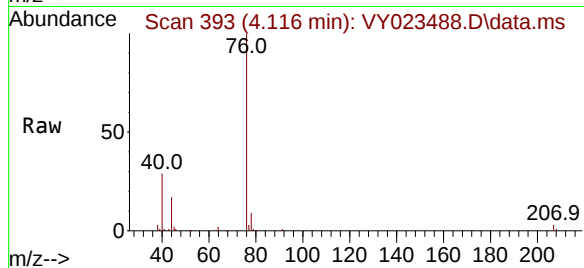




#17
Carbon Disulfide
Concen: 2.573 ug/l
RT: 4.116 min Scan# 391
Delta R.T. 0.012 min
Lab File: VY023488.D
Acq: 16 Oct 2025 13:51

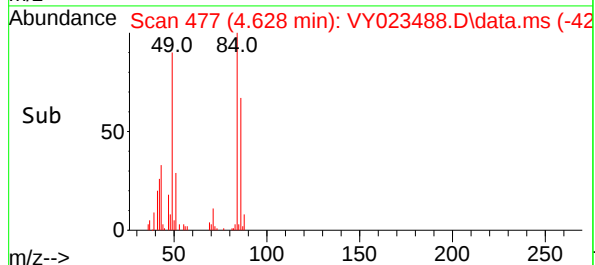
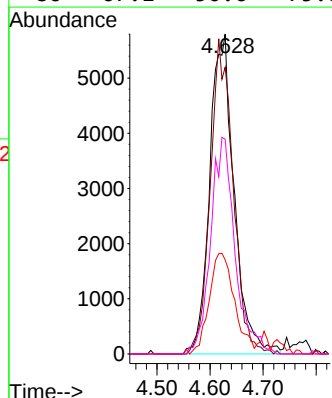
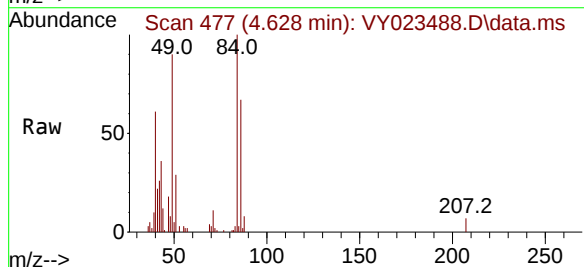
Instrument : MSVOA_Y
ClientSampleId : PR132-SO3-028010-20251015

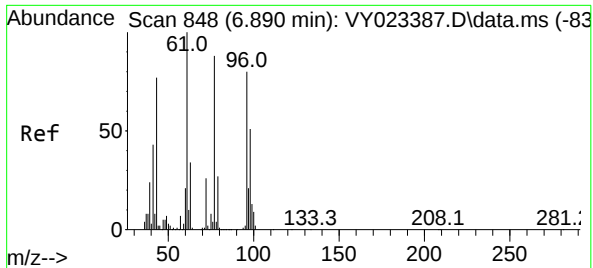
Tgt Ion: 76 Resp: 40643
Ion Ratio Lower Upper
76 100
78 8.8 7.3 10.9



#20
Methylene Chloride
Concen: 2.775 ug/l
RT: 4.628 min Scan# 477
Delta R.T. 0.012 min
Lab File: VY023488.D
Acq: 16 Oct 2025 13:51

Tgt Ion: 84 Resp: 18484
Ion Ratio Lower Upper
84 100
49 89.6 80.2 120.4
51 29.4 25.9 38.9
86 67.1 50.6 75.8





#25

2-Butanone

Concen: 14.637 ug/l

RT: 6.902 min Scan# 81

Delta R.T. 0.012 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

Instrument :

MSVOA_Y

ClientSampleId :

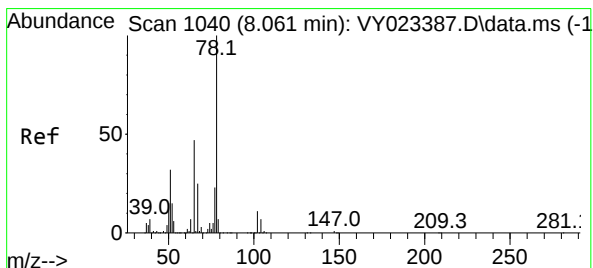
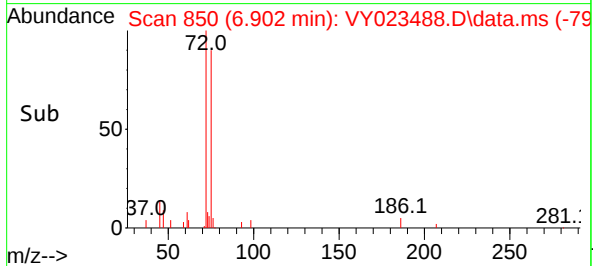
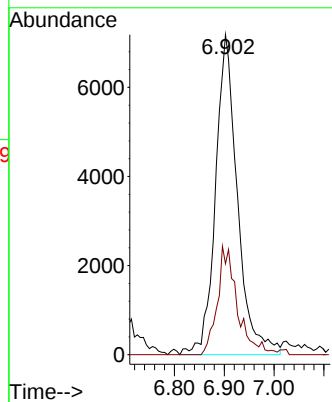
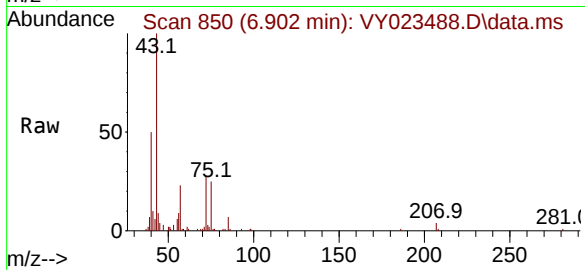
PR132-SO3-028010-20251015

Tgt Ion: 43 Resp: 22012

Ion Ratio Lower Upper

43 100

72 28.4 27.4 41.2



#33

1,2-Dichloroethane-d4

Concen: 62.026 ug/l

RT: 8.067 min Scan# 1041

Delta R.T. 0.006 min

Lab File: VY023488.D

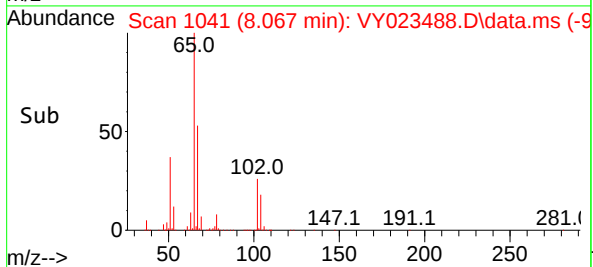
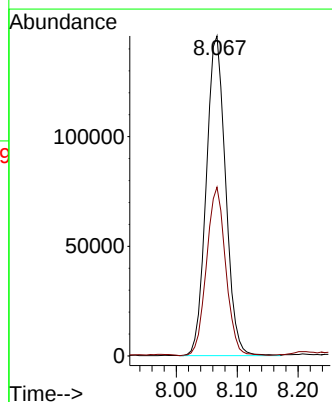
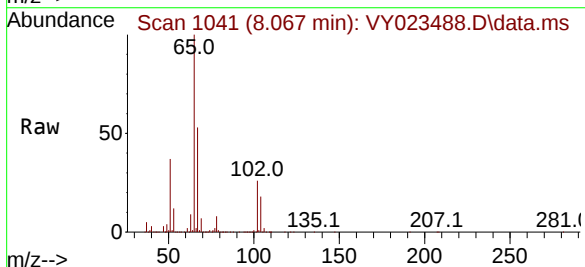
Acq: 16 Oct 2025 13:51

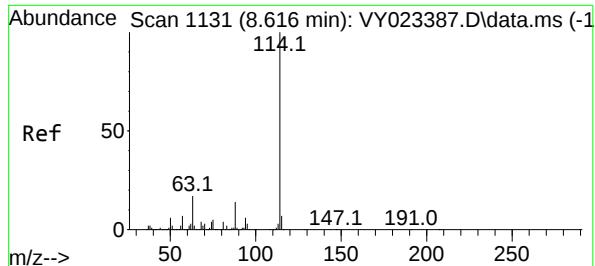
Tgt Ion: 65 Resp: 320933

Ion Ratio Lower Upper

65 100

67 52.4 0.0 105.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. -0.000 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO3-028010-20251015

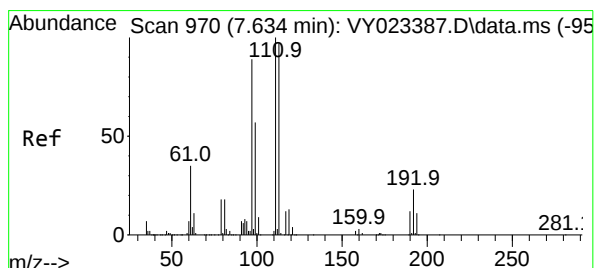
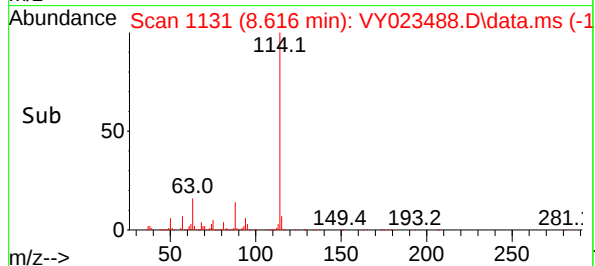
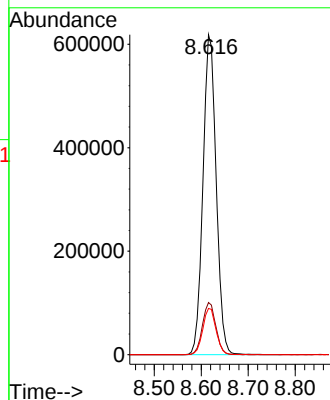
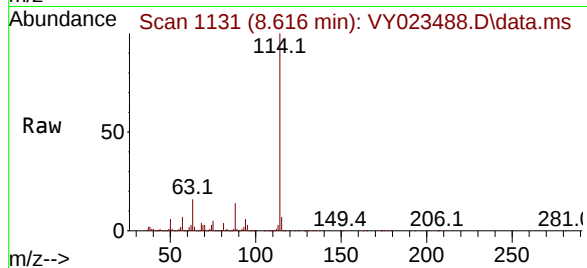
Tgt Ion:114 Resp: 1206292

Ion Ratio Lower Upper

114 100

63 16.3 0.0 34.2

88 14.5 0.0 28.4



#35

Dibromofluoromethane

Concen: 53.727 ug/l

RT: 7.640 min Scan# 971

Delta R.T. 0.006 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

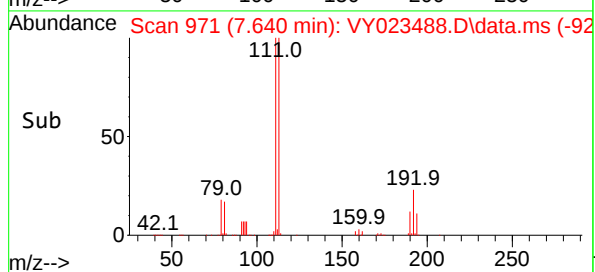
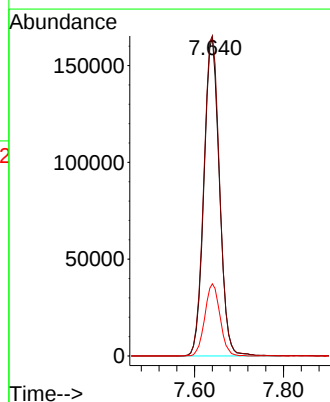
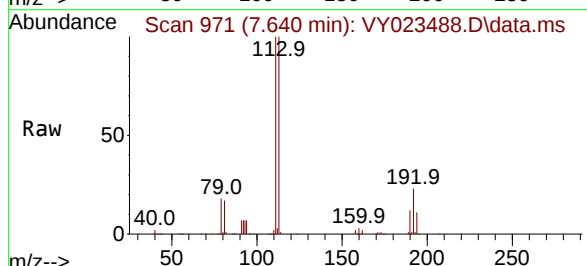
Tgt Ion:113 Resp: 398228

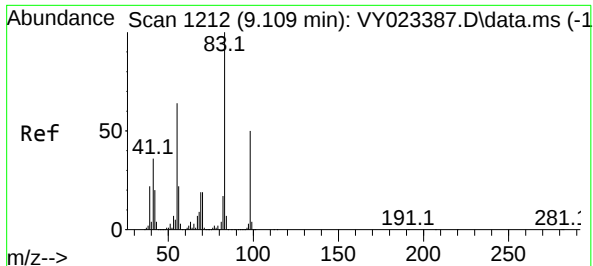
Ion Ratio Lower Upper

113 100

111 102.6 81.8 122.6

192 22.4 18.0 27.0





#39

Methylcyclohexane

Concen: 31.444 ug/l

RT: 9.109 min Scan# 11

Delta R.T. -0.000 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO3-028010-20251015

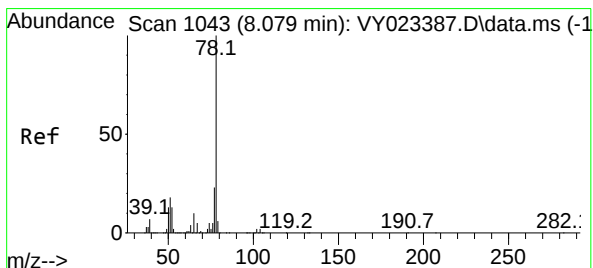
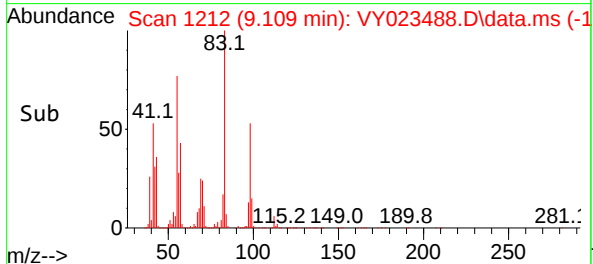
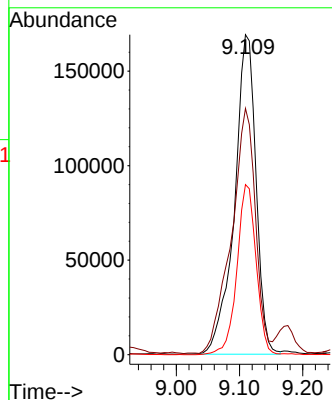
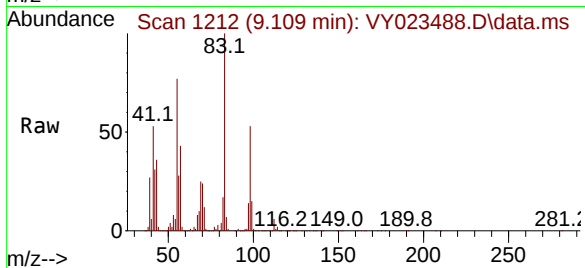
Tgt Ion: 83 Resp: 401744

Ion Ratio Lower Upper

83 100

55 76.6 51.4 77.2

98 53.2 40.4 60.6



#40

Benzene

Concen: 1.722 ug/l

RT: 8.085 min Scan# 1044

Delta R.T. 0.006 min

Lab File: VY023488.D

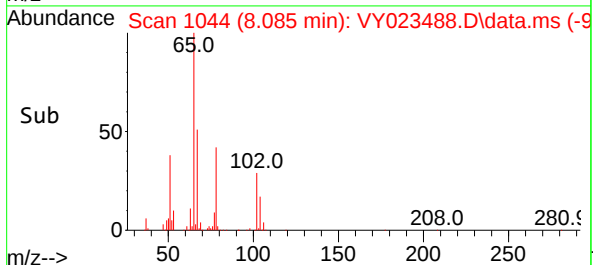
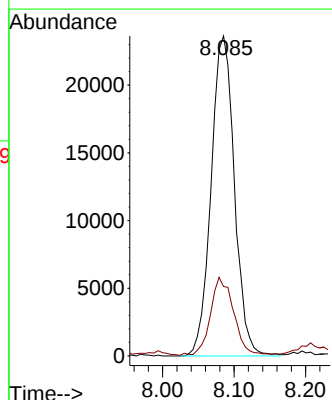
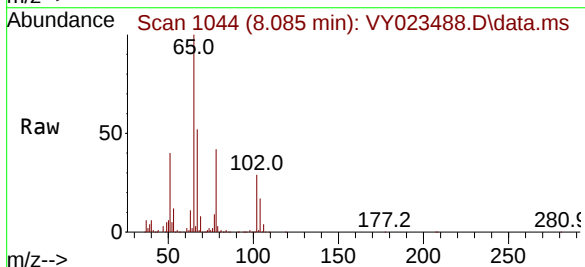
Acq: 16 Oct 2025 13:51

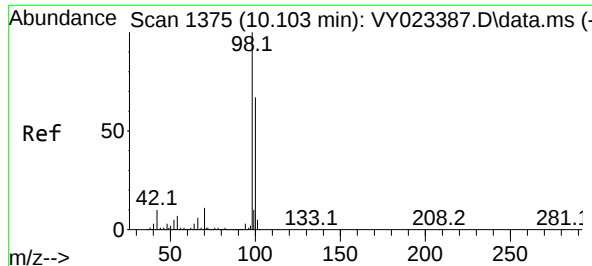
Tgt Ion: 78 Resp: 53508

Ion Ratio Lower Upper

78 100

77 21.5 18.3 27.5





#50

Toluene-d8

Concen: 54.592 ug/l

RT: 10.109 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

Instrument :

MSVOA_Y

ClientSampleId :

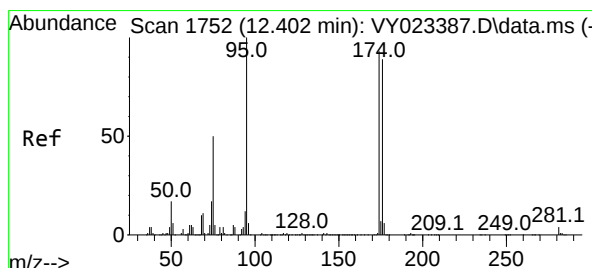
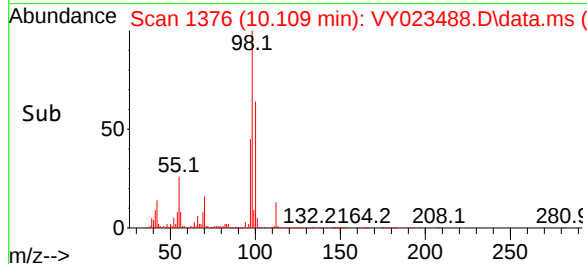
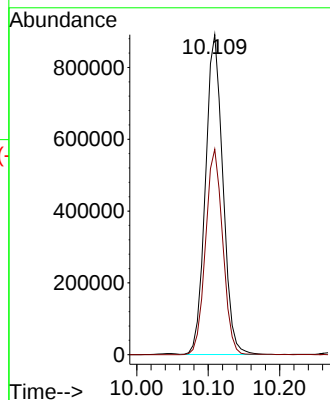
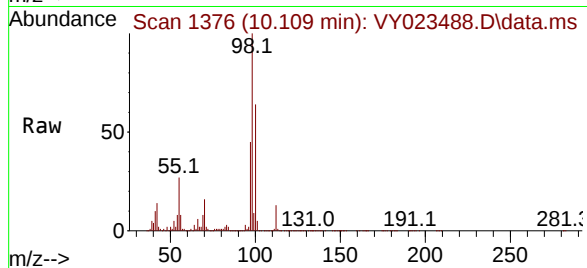
PR132-SO3-028010-20251015

Tgt Ion: 98 Resp: 1506924

Ion Ratio Lower Upper

98 100

100 63.4 53.0 79.4



#62

4-Bromofluorobenzene

Concen: 59.943 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. 0.006 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

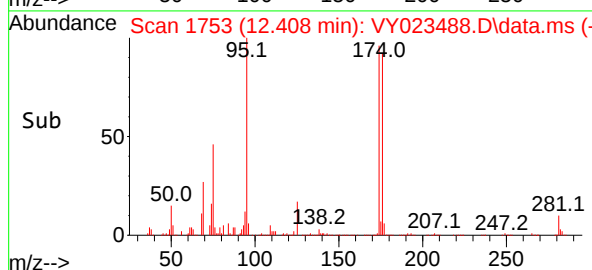
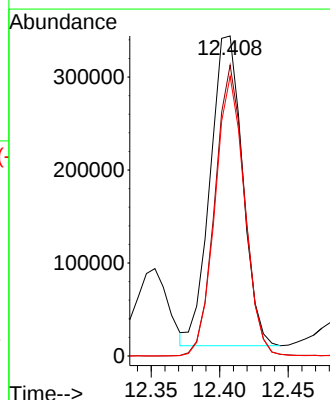
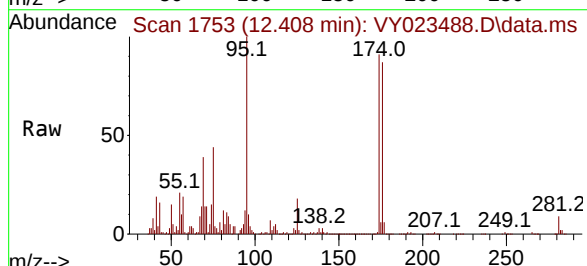
Tgt Ion: 95 Resp: 546271

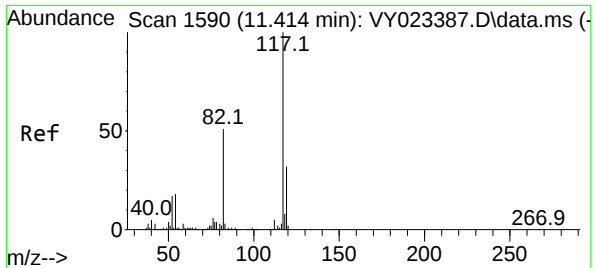
Ion Ratio Lower Upper

95 100

174 85.8 0.0 192.8

176 82.5 0.0 187.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 1591

Delta R.T. 0.006 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO3-028010-20251015

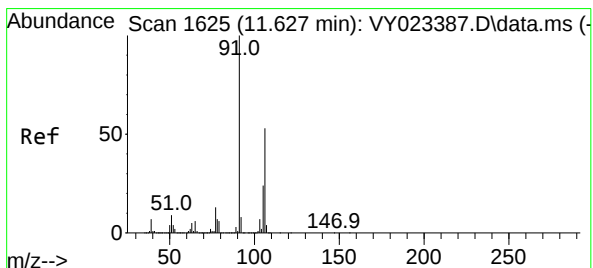
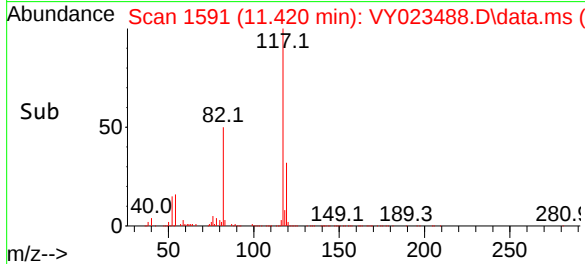
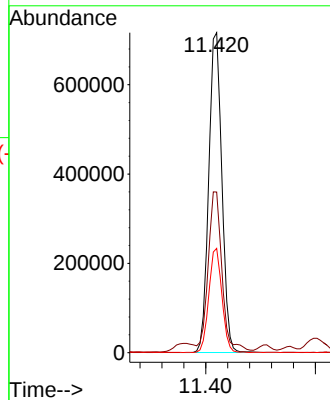
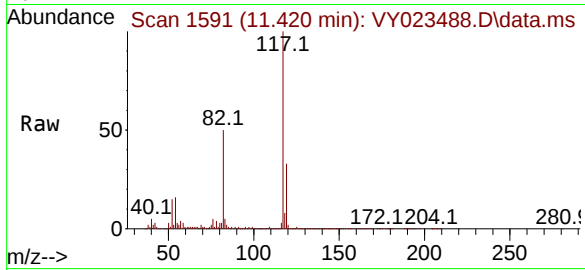
Tgt Ion:117 Resp: 1183423

Ion Ratio Lower Upper

117 100

82 49.2 41.0 61.4

119 32.5 25.6 38.4



#68

m/p-Xylenes

Concen: 2.072 ug/l

RT: 11.627 min Scan# 1625

Delta R.T. -0.000 min

Lab File: VY023488.D

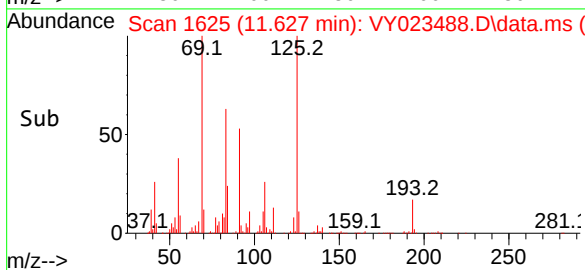
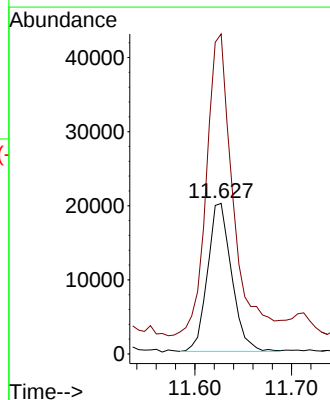
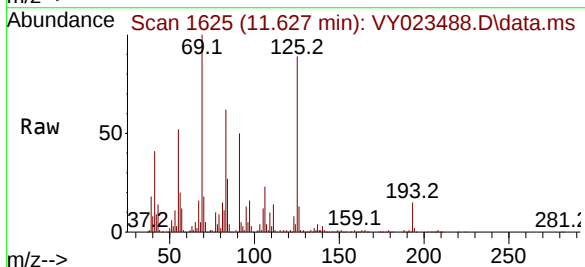
Acq: 16 Oct 2025 13:51

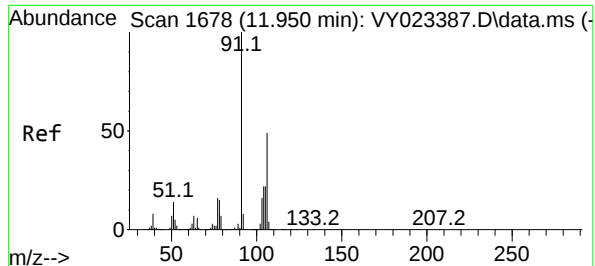
Tgt Ion:106 Resp: 34630

Ion Ratio Lower Upper

106 100

91 236.8 152.6 229.0#





#69

o-Xylene

Concen: 4.745 ug/l

RT: 11.956 min Scan# 1

Delta R.T. 0.006 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

Instrument :

MSVOA_Y

ClientSampleId :

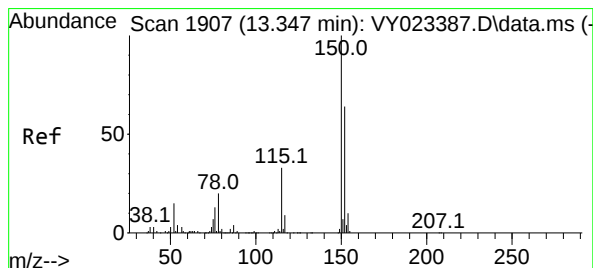
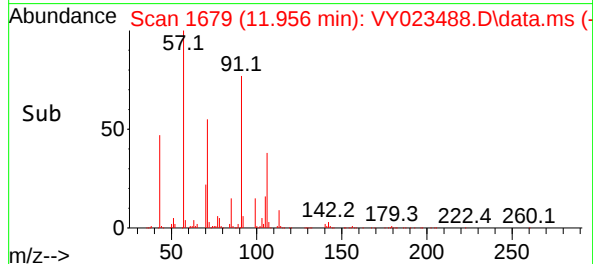
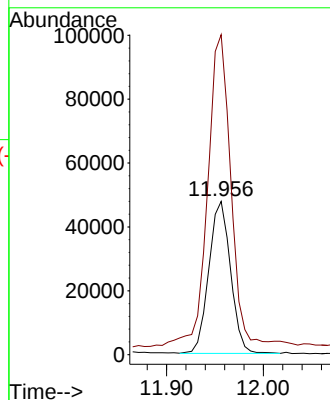
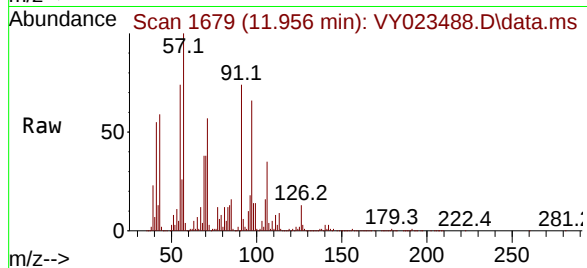
PR132-SO3-028010-20251015

Tgt Ion:106 Resp: 74372

Ion Ratio Lower Upper

106 100

91 218.0 101.4 304.1



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.346 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

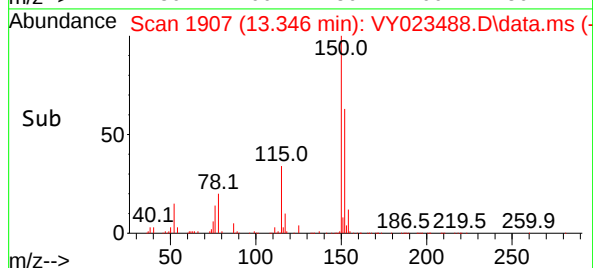
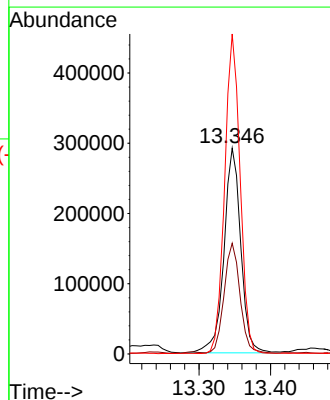
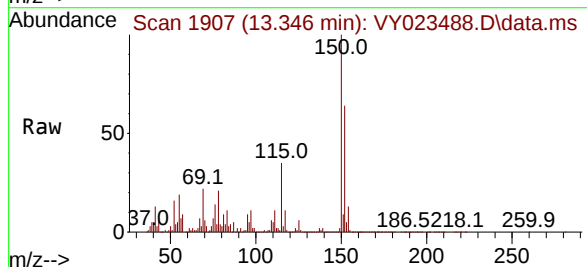
Tgt Ion:152 Resp: 475817

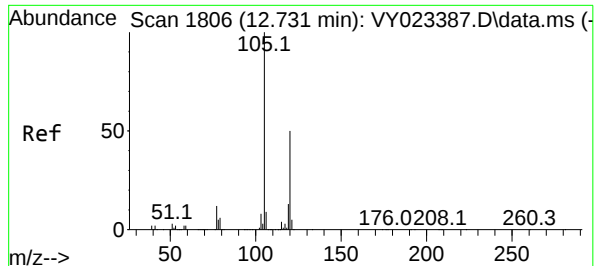
Ion Ratio Lower Upper

152 100

115 50.6 27.1 81.2

150 143.4 0.0 347.4





#80

1,3,5-Trimethylbenzene

Concen: 4.856 ug/l

RT: 12.737 min Scan# 1806

Delta R.T. 0.006 min

Lab File: VY023488.D

Acq: 16 Oct 2025 13:51

Instrument :

MSVOA_Y

ClientSampleId :

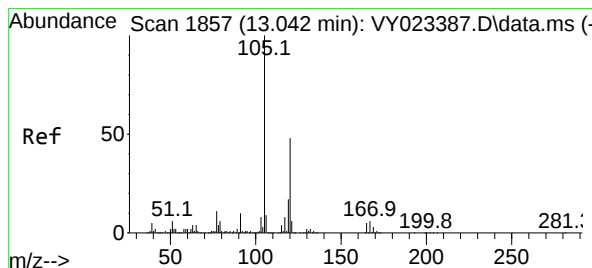
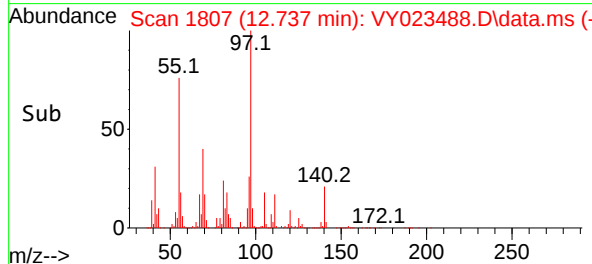
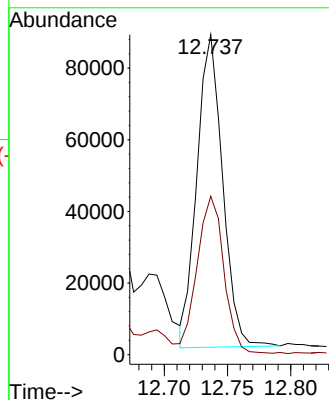
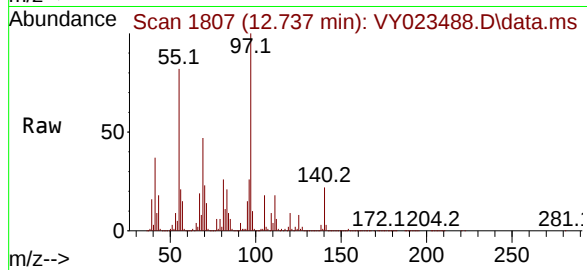
PR132-SO3-028010-20251015

Tgt Ion:105 Resp: 123045

Ion Ratio Lower Upper

105 100

120 52.8 25.4 76.4



#84

1,2,4-Trimethylbenzene

Concen: 5.595 ug/l

RT: 13.042 min Scan# 1857

Delta R.T. -0.000 min

Lab File: VY023488.D

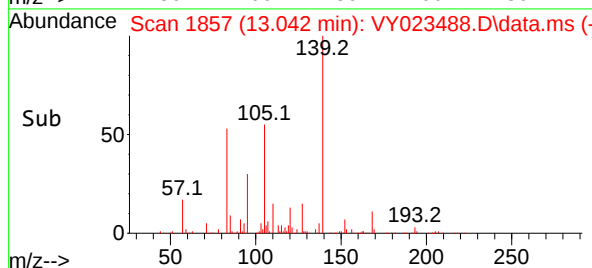
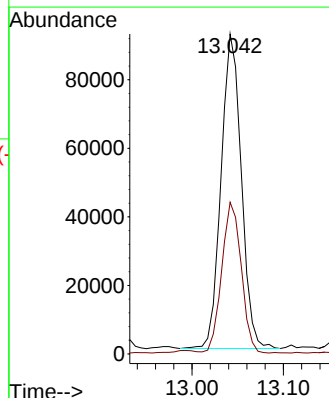
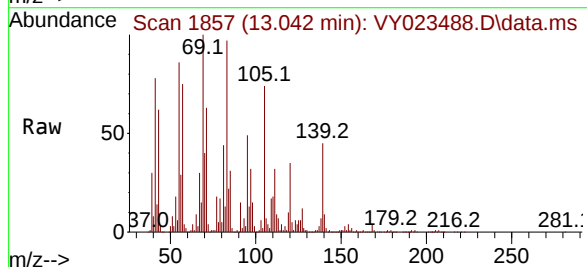
Acq: 16 Oct 2025 13:51

Tgt Ion:105 Resp: 141492

Ion Ratio Lower Upper

105 100

120 46.0 23.8 71.2



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M
Title : SW846 8260

Signal : TIC: VY023488.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.616	463	475	481	rBV2	27524	96786	1.40%	0.053%
2	6.604	789	801	808	rBV3	40987	137222	1.98%	0.076%
3	7.640	959	971	977	rBV	544800	1360163	19.63%	0.750%
4	7.713	977	983	990	rVV	795710	1808280	26.10%	0.998%
5	7.793	990	996	1009	rVV2	156118	401508	5.80%	0.222%
6	7.927	1009	1018	1024	rVV	124365	302200	4.36%	0.167%
7	8.067	1033	1041	1053	rVV2	441460	1032202	14.90%	0.570%
8	8.201	1053	1063	1066	rVV3	127809	314776	4.54%	0.174%
9	8.250	1066	1071	1080	rVV3	249687	755253	10.90%	0.417%
10	8.341	1080	1086	1095	rVB	146556	343604	4.96%	0.190%
11	8.616	1122	1131	1147	rBV	1326734	2631250	37.98%	1.452%
12	8.853	1162	1170	1177	rBV	204388	438194	6.33%	0.242%
13	8.933	1177	1183	1191	rVB2	76984	173659	2.51%	0.096%
14	9.115	1199	1213	1218	rBV3	1106613	2890836	41.73%	1.595%
15	9.170	1218	1222	1230	rVB	439054	828107	11.95%	0.457%
16	9.304	1238	1244	1249	rBV4	66257	130359	1.88%	0.072%
17	9.390	1249	1258	1266	rVB2	415624	950190	13.72%	0.524%
18	9.536	1276	1282	1291	rBV2	544051	1096806	15.83%	0.605%
19	9.689	1295	1307	1311	rBV2	504299	1093577	15.79%	0.603%
20	9.731	1311	1314	1320	rVB2	181086	294827	4.26%	0.163%
21	9.786	1320	1323	1329	rVB4	63252	109189	1.58%	0.060%
22	9.865	1329	1336	1341	rBV	318890	658271	9.50%	0.363%
23	9.920	1341	1345	1352	rVB3	229749	445457	6.43%	0.246%
24	9.999	1352	1358	1360	rBV3	144280	261185	3.77%	0.144%
25	10.042	1360	1365	1369	rVB2	360543	622619	8.99%	0.344%
26	10.109	1369	1376	1389	rVB	3489083	6927714	100.00%	3.822%
27	10.231	1389	1396	1399	rBV2	216001	396876	5.73%	0.219%
28	10.274	1399	1403	1415	rVB4	447940	1308452	18.89%	0.722%
29	10.414	1416	1426	1428	rBV	372443	737295	10.64%	0.407%
30	10.451	1428	1432	1440	rVB	648190	1088046	15.71%	0.600%
31	10.548	1440	1448	1452	rBV3	485378	1108476	16.00%	0.612%
32	10.597	1452	1456	1459	rVB	245471	370832	5.35%	0.205%
33	10.640	1459	1463	1468	rVB	575706	884541	12.77%	0.488%
34	10.688	1468	1471	1473	rBV2	80020	104805	1.51%	0.058%
35	10.731	1473	1478	1484	rVB	1702533	2654154	38.31%	1.464%
36	10.835	1484	1495	1502	rBV	1171469	2585245	37.32%	1.426%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y1007255.M
Title : SW846 8260

37	10.902	1502	1506	1509	rBV2	398297	619210	8.94%	0.342%
38	10.963	1512	1516	1520	rVB	830553	1116148	16.11%	0.616%
39	11.018	1520	1525	1531	rVB	2473498	4148587	59.88%	2.289%
40	11.072	1531	1534	1538	rVB	430083	555994	8.03%	0.307%
41	11.133	1538	1544	1548	rBV2	1303823	2262876	32.66%	1.249%
42	11.176	1548	1551	1555	rBV3	374555	658413	9.50%	0.363%
43	11.225	1555	1559	1567	rVB	1127175	2134465	30.81%	1.178%
44	11.304	1567	1572	1575	rBV2	356645	563324	8.13%	0.311%
45	11.347	1575	1579	1583	rVB5	131997	172114	2.48%	0.095%
46	11.414	1584	1590	1596	rBV	2040881	3564430	51.45%	1.967%
47	11.493	1600	1603	1608	rBV2	78035	112909	1.63%	0.062%
48	11.554	1608	1613	1616	rBV	521402	779478	11.25%	0.430%
49	11.609	1616	1622	1626	rBV5	820715	1754105	25.32%	0.968%
50	11.664	1626	1631	1635	rBV	1607907	2694752	38.90%	1.487%
51	11.706	1635	1638	1643	rVB2	1191287	1866576	26.94%	1.030%
52	11.767	1643	1648	1651	rBV2	462076	806762	11.65%	0.445%
53	11.816	1652	1656	1659	rBV3	158179	273862	3.95%	0.151%
54	11.859	1659	1663	1667	rVB2	706406	1031960	14.90%	0.569%
55	11.932	1667	1675	1681	rBV4	2383997	6074870	87.69%	3.352%
56	11.987	1681	1684	1686	rVB	307410	295826	4.27%	0.163%
57	12.017	1686	1689	1690	rBV2	343536	357396	5.16%	0.197%
58	12.048	1690	1694	1699	rVB	3315384	4653746	67.18%	2.568%
59	12.127	1699	1707	1709	rBV4	1967663	3524422	50.87%	1.945%
60	12.164	1709	1713	1719	rVB3	3244328	5787294	83.54%	3.193%
61	12.298	1729	1735	1742	rVB5	1660517	3815532	55.08%	2.105%
62	12.408	1747	1753	1759	rVB3	2334305	4193748	60.54%	2.314%
63	12.499	1759	1768	1772	rBV4	1057682	2872712	41.47%	1.585%
64	12.566	1775	1779	1786	rVB2	2552460	4722654	68.17%	2.606%
65	12.651	1786	1793	1799	rBV6	1341469	3822179	55.17%	2.109%
66	12.737	1799	1807	1811	rBV3	2438391	5973919	86.23%	3.296%
67	12.786	1812	1815	1820	rVB2	1424529	2191902	31.64%	1.209%
68	12.853	1820	1826	1833	rBV2	2765495	6403443	92.43%	3.533%
69	12.926	1833	1838	1841	rBV	3829277	6194837	89.42%	3.418%
70	12.962	1841	1844	1852	rVB3	2242756	3818589	55.12%	2.107%
71	13.090	1862	1865	1871	rBV4	1044285	1963649	28.34%	1.083%
72	13.212	1882	1885	1886	rBV3	696425	815636	11.77%	0.450%
73	13.243	1887	1890	1893	rVV	1744147	2395342	34.58%	1.322%
74	13.273	1893	1895	1901	rVB5	767856	1207826	17.43%	0.666%
75	13.346	1902	1907	1921	rVB3	1483114	3231420	46.64%	1.783%
76	13.487	1926	1930	1934	rVB3	941877	1409121	20.34%	0.777%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M
Title : SW846 8260

77	13.529	1935	1937	1941	rVB4	288609	318644	4.60%	0.176%
78	13.670	1954	1960	1964	rBV4	2040728	3824416	55.20%	2.110%
79	13.718	1964	1968	1972	rVV4	888333	1775992	25.64%	0.980%
80	13.779	1975	1978	1984	rVV5	941604	2348240	33.90%	1.296%
81	13.840	1984	1988	1992	rVV4	981947	2238309	32.31%	1.235%
82	13.889	1993	1996	2000	rVV5	1065367	1680580	24.26%	0.927%
83	13.932	2001	2003	2009	rVB2	738968	1023559	14.77%	0.565%
84	13.999	2009	2014	2018	rBV4	852552	1291649	18.64%	0.713%
85	14.066	2019	2025	2030	rVB5	878122	1763810	25.46%	0.973%
86	14.121	2030	2034	2038	rBV6	385684	614962	8.88%	0.339%
87	14.182	2038	2044	2059	rBV7	1896031	5252358	75.82%	2.898%
88	14.304	2060	2064	2066	rBV5	518076	751369	10.85%	0.415%
89	14.340	2066	2070	2074	rVB2	1454792	1967263	28.40%	1.085%
90	14.535	2099	2102	2105	rBV4	392986	546126	7.88%	0.301%
91	14.602	2108	2113	2116	rVV4	983422	1865187	26.92%	1.029%
92	14.645	2116	2120	2127	rVB2	2496075	4072015	58.78%	2.247%
93	14.761	2137	2139	2142	rBV3	339199	422582	6.10%	0.233%
94	14.858	2152	2155	2159	rVB3	759650	998626	14.41%	0.551%
95	15.120	2194	2198	2204	rBV	2535034	3937286	56.83%	2.172%
96	15.346	2232	2235	2242	rBV6	344955	711526	10.27%	0.393%
97	15.511	2257	2262	2267	rVB3	1161214	2160148	31.18%	1.192%
98	16.047	2346	2350	2357	rVB	1226821	2120085	30.60%	1.170%
99	16.358	2397	2401	2407	rVB4	502971	875305	12.63%	0.483%
100	16.480	2417	2421	2428	rBV4	222926	500874	7.23%	0.276%

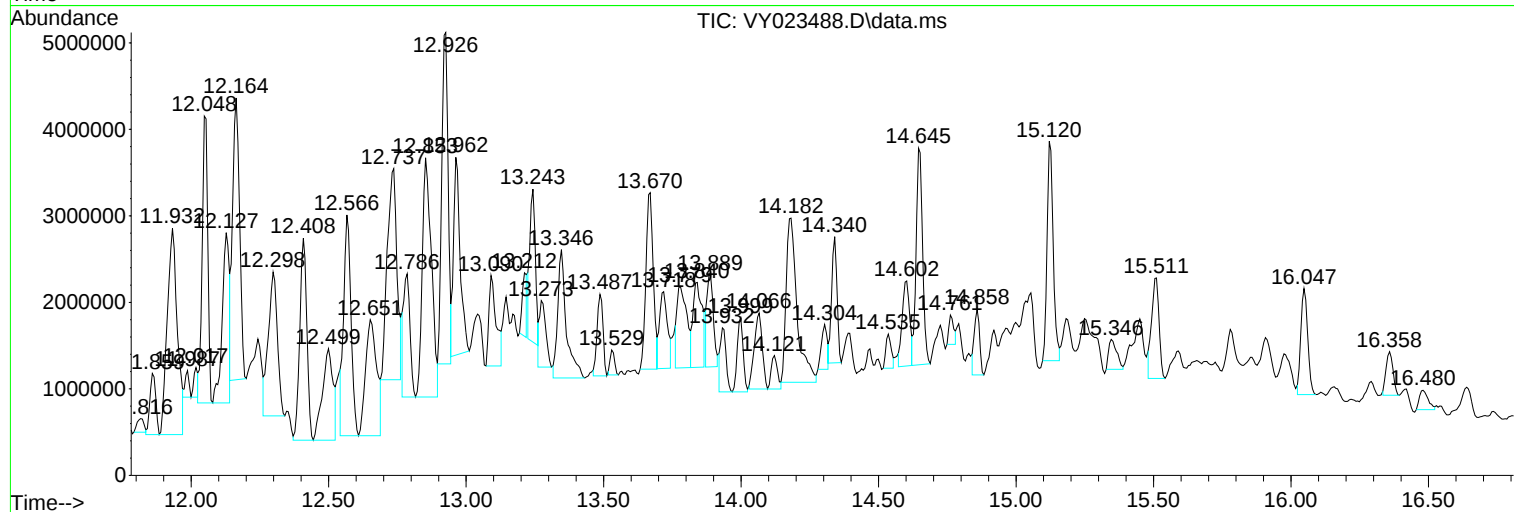
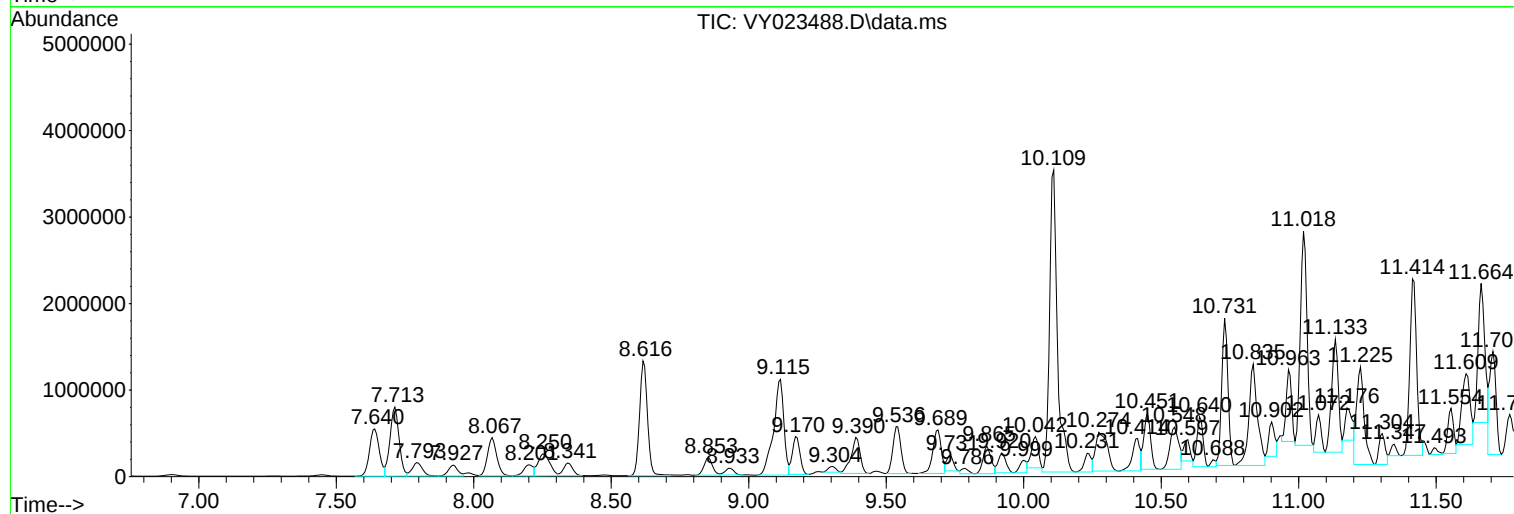
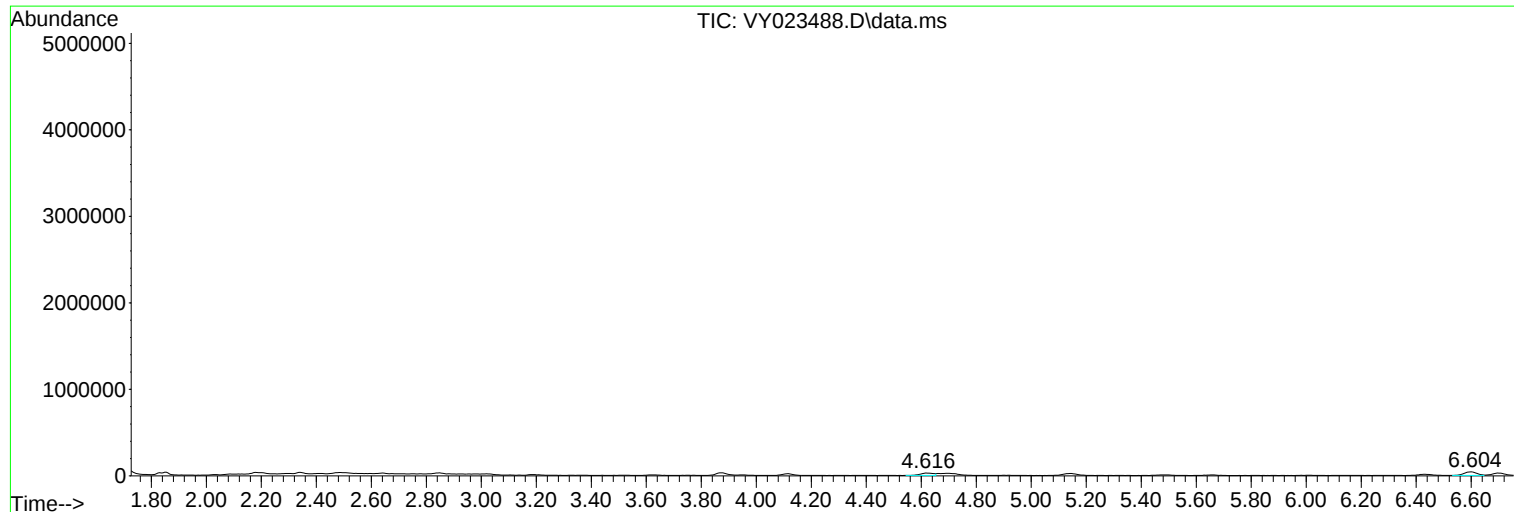
Sum of corrected areas: 181245895

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

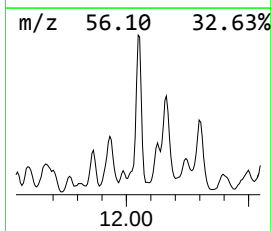
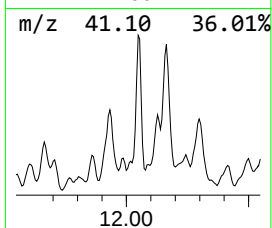
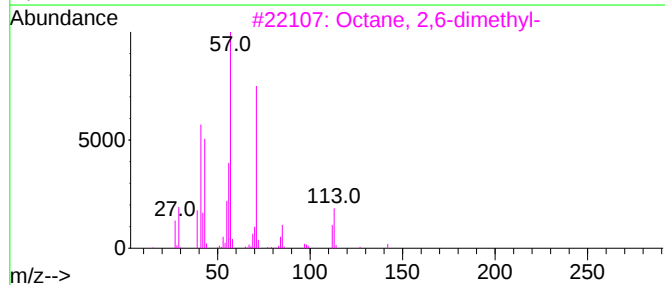
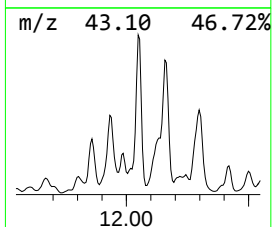
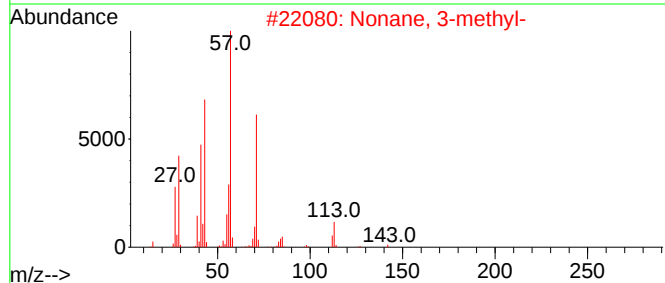
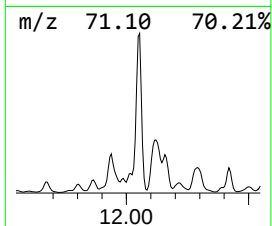
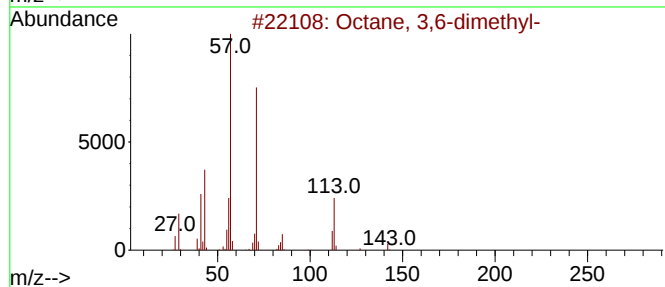
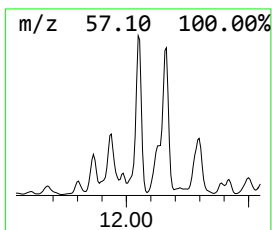
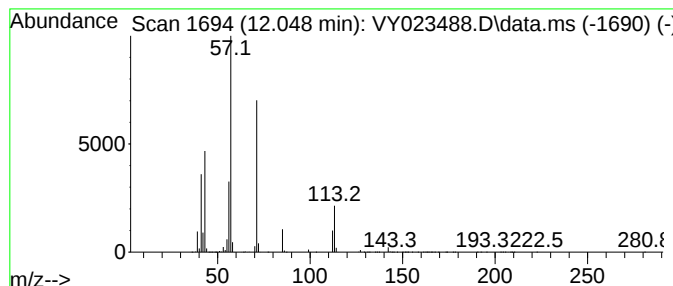
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 1 Octane, 3,6-dimethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.048	65.28 ug/l	4653750	Chlorobenzene-d5	11.420

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Octane, 3,6-dimethyl-	142	C10H22	015869-94-0	91
2			Nonane, 3-methyl-	142	C10H22	005911-04-6	91
3			Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	87
4			Sulfurous acid, decyl 2-ethylhex...	334	C18H38O3S	1000309-19-3	64
5			Undecane, 6,6-dimethyl-	184	C13H28	017312-76-4	64



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

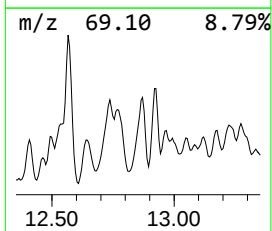
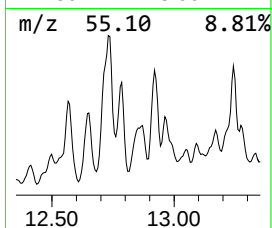
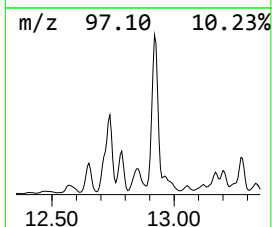
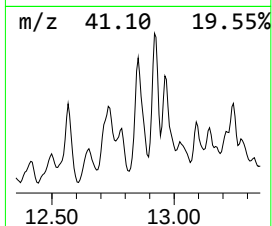
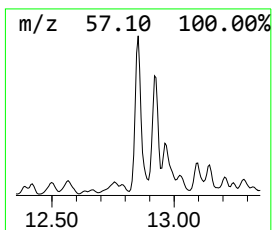
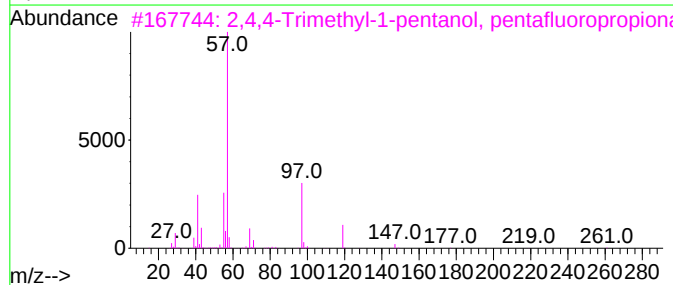
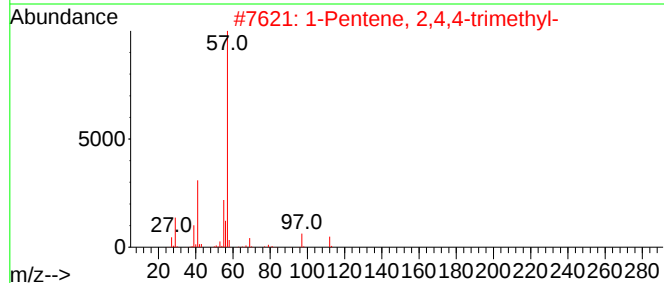
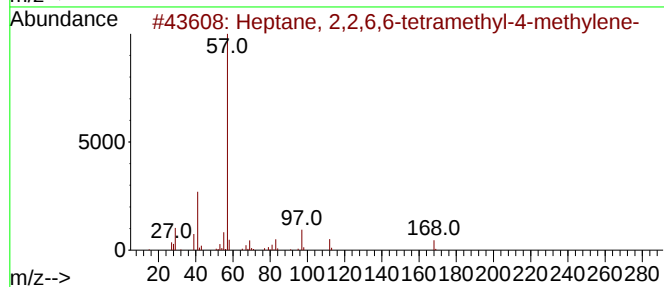
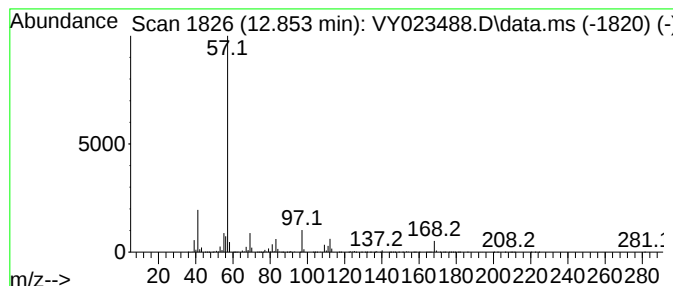
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 5 Heptane, 2,2,6,6-tetramethyl... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.853	99.08 ug/l	6403440	1,4-Dichlorobenzene-d4	13.346	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane, 2,2,6,6-tetramethyl-4-m...	168	C12H24	000141-70-8	87
2	1-Pentene, 2,4,4-trimethyl-	112	C8H16	000107-39-1	47
3	2,4,4-Trimethyl-1-pentanol, pent...	276	C11H17F5O2	1000365-51-0	43
4	4-Decene, 2,2-dimethyl-, (Z)-	168	C12H24	055499-03-1	38
5	4-Decene, 2,2-dimethyl-, (E)-	168	C12H24	055534-69-5	37



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

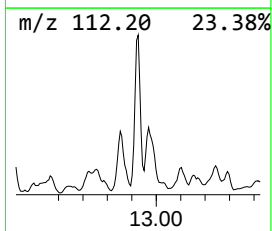
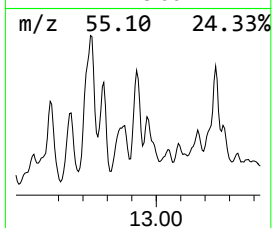
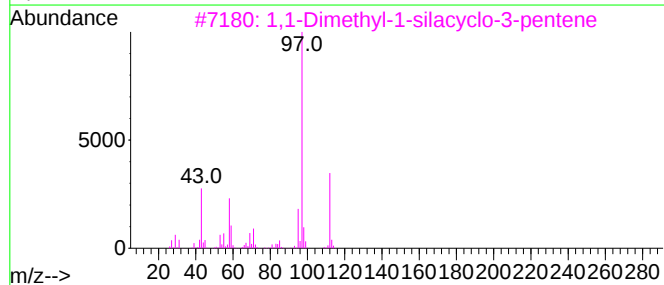
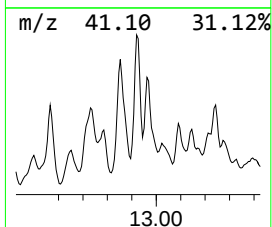
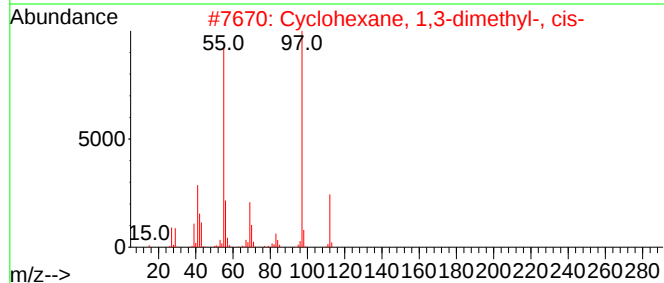
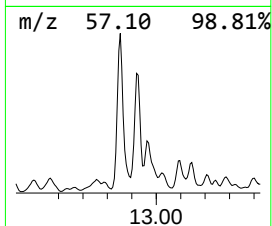
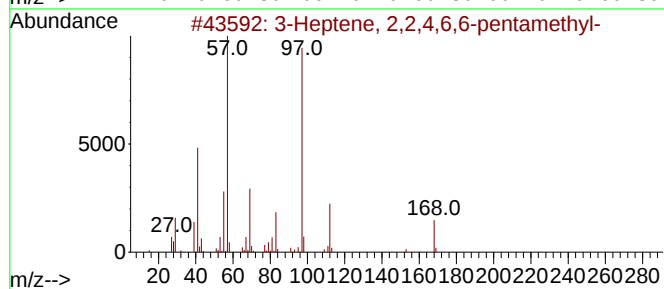
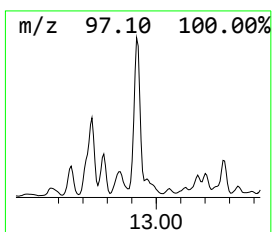
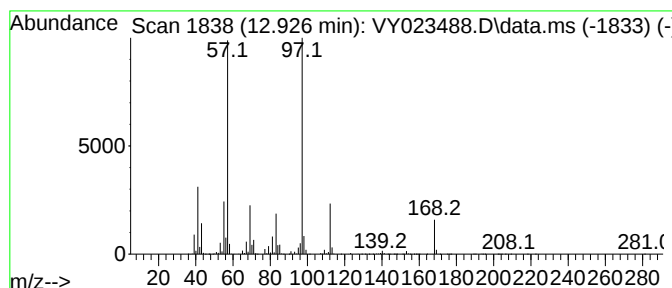
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 6 3-Heptene, 2,2,4,6,6-pentam... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD		R.T.	
12.926	95.85 ug/l	6194840	1,4-Dichlorobenzene-d4		13.346	
Hit# of 5	Tentative ID		MW	MolForm	CAS#	Qual
1	3-Heptene, 2,2,4,6,6-pentamethyl-		168	C12H24	000123-48-8	93
2	Cyclohexane, 1,3-dimethyl-, cis-		112	C8H16	000638-04-0	59
3	1,1-Dimethyl-1-silacyclo-3-pentene		112	C6H12Si	016054-12-9	58
4	3-Cyclohexen-1-ol, 3-methyl-		112	C7H12O	053783-91-8	58
5	2-Pentene, 2,3,4-trimethyl-		112	C8H16	000565-77-5	58



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

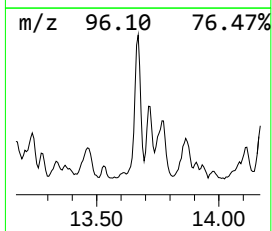
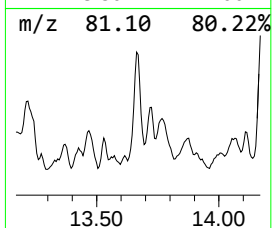
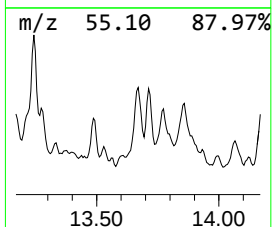
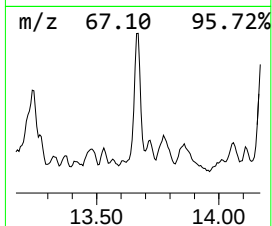
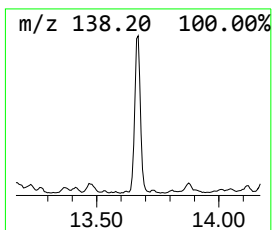
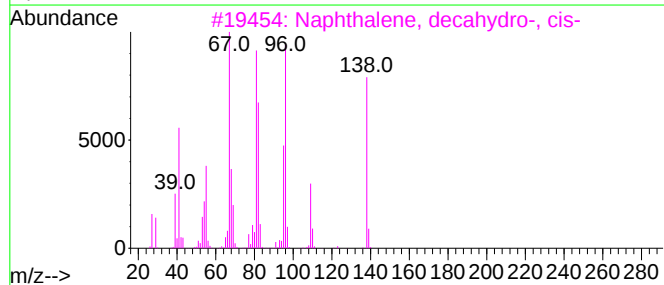
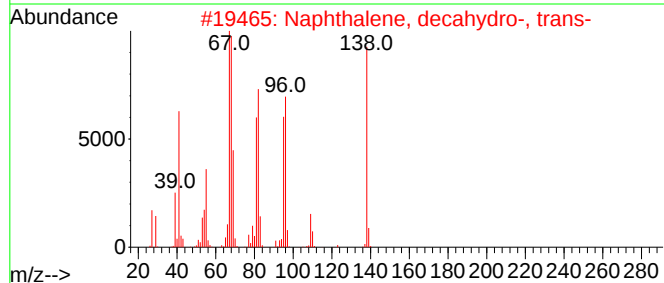
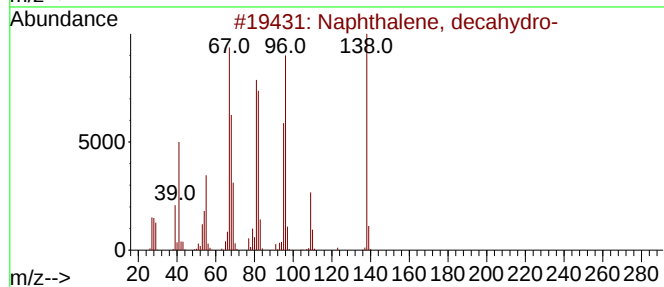
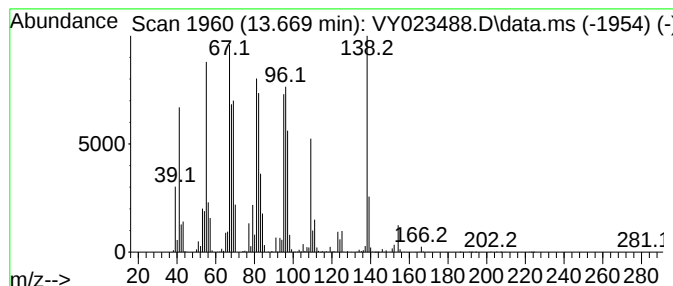
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 7 Naphthalene, decahydro- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.669	59.18 ug/l	3824420	1,4-Dichlorobenzene-d4	13.346

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Naphthalene, decahydro-	138	C10H18	000091-17-8	94
2			Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	90
3			Naphthalene, decahydro-, cis-	138	C10H18	000493-01-6	87
4			Spiro[4.5]decane	138	C10H18	000176-63-6	87
5			2,2-Dimethyl-3-vinylcyclopentanone	138	C9H14O	1000427-24-5	72



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

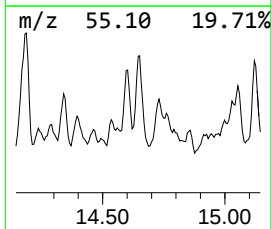
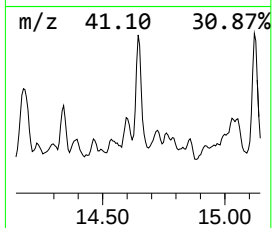
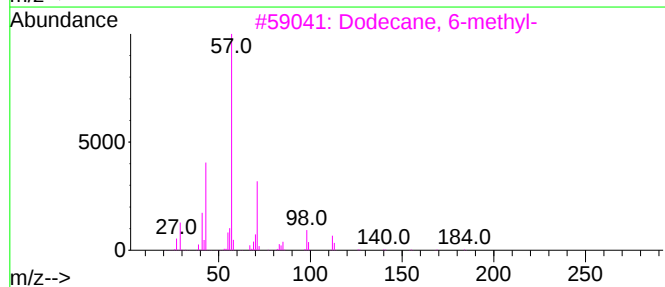
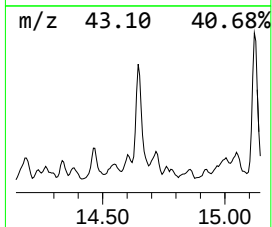
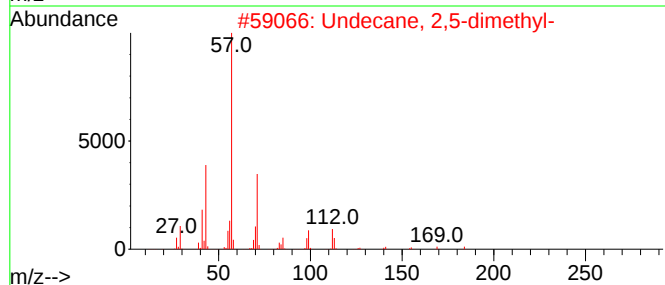
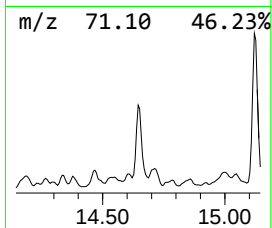
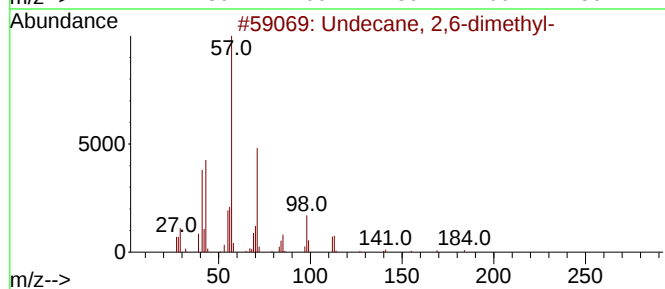
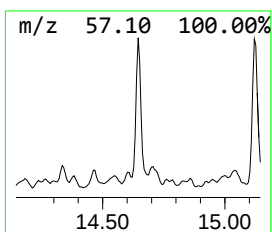
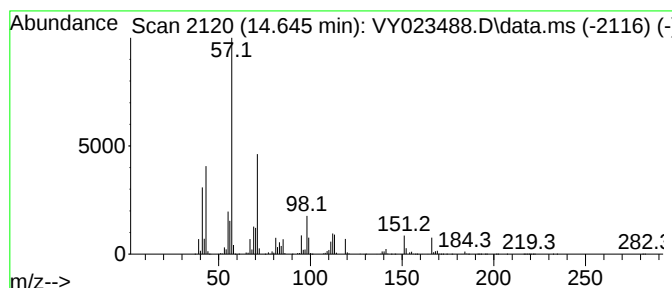
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 9 Undecane, 2,6-dimethyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD		R.T.	
14.645	63.01 ug/l	4072020	1,4-Dichlorobenzene-d4		13.346	
Hit# of 5	Tentative ID		MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-		184	C13H28	017301-23-4	93
2	Undecane, 2,5-dimethyl-		184	C13H28	017301-22-3	60
3	Dodecane, 6-methyl-		184	C13H28	006044-71-9	58
4	Sulfurous acid, butyl octyl ester		250	C12H26O3S	1000309-17-5	58
5	Sulfurous acid, decyl 2-ethylhex...		334	C18H38O3S	1000309-19-3	53



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

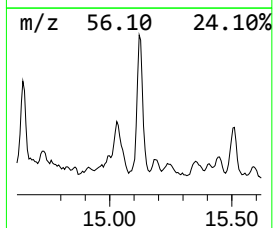
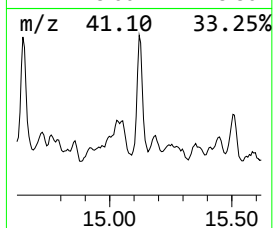
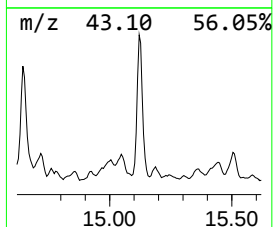
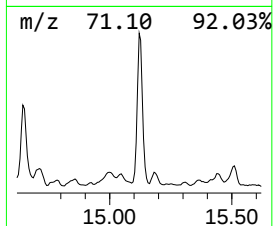
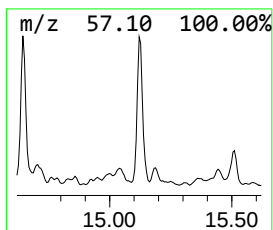
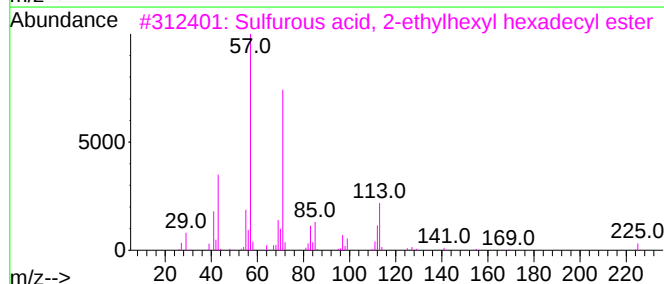
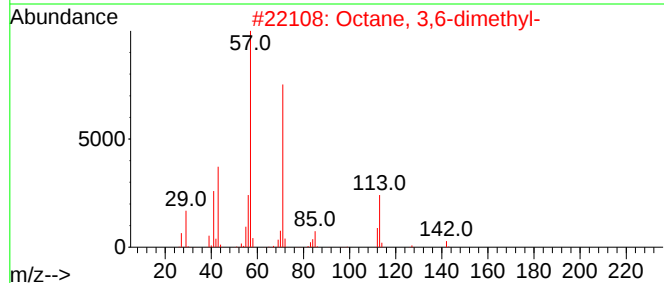
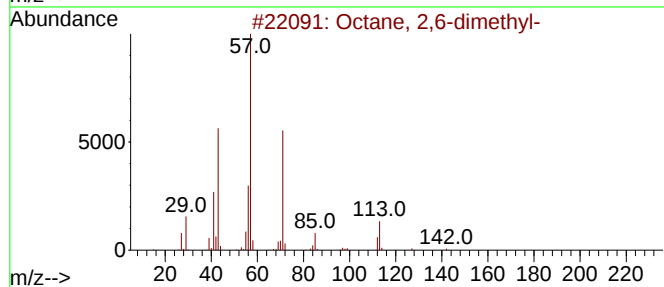
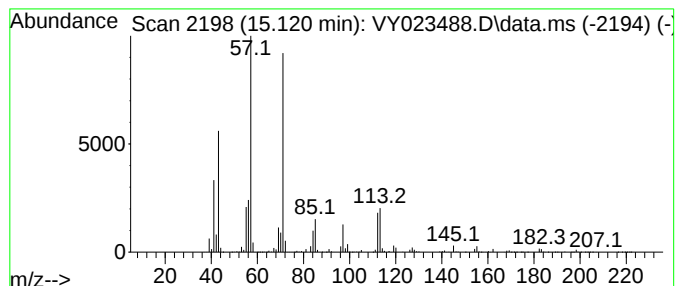
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 10 Octane, 2,6-dimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.121	60.92 ug/l	3937290	1,4-Dichlorobenzene-d4	13.346

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	90
2			Octane, 3,6-dimethyl-	142	C10H22	015869-94-0	80
3			Sulfurous acid, 2-ethylhexyl hex...	418	C24H50O3S	1000309-19-9	72
4			Sulfurous acid, 2-ethylhexyl tri...	376	C21H44O3S	1000309-19-6	64
5			Tridecane, 7-methyl-	198	C14H30	026730-14-3	64



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023488.D
Acq On : 16 Oct 2025 13:51
Operator : SY/MD
Sample : Q3363-03
Misc : 3.60g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-028010-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST0.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Octane, 3,6-dim...	12.048	65.3	ug/l	4653750	3	11.420	3564430	50.0
Heptane, 2,2,6,...	12.853	99.1	ug/l	6403440	4	13.346	3231420	50.0
3-Heptene, 2,2,...	12.926	95.8	ug/l	6194840	4	13.346	3231420	50.0
Naphthalene, de...	13.669	59.2	ug/l	3824420	4	13.346	3231420	50.0
Undecane, 2,6-d...	14.645	63.0	ug/l	4072020	4	13.346	3231420	50.0
Octane, 2,6-dim...	15.121	60.9	ug/l	3937290	4	13.346	3231420	50.0

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: PR132-SO3-010013-202510
 Lab Sample ID: Q3363-04
 Analytical Method: 8260D
 Sample Wt/Vol: 4.47 g

Level : LOW
 Final Vol: 5000 uL

Date Collected: 10/15/25
 Date Received: 10/15/25
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 51.5
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	10.9	U	1	2.50	10.9	ug/Kg	10/16/25 14:14	VY101625
74-87-3	Chloromethane	10.9	U	1	2.50	10.9	ug/Kg	10/16/25 14:14	VY101625
75-01-4	Vinyl Chloride	10.9	U	1	1.70	10.9	ug/Kg	10/16/25 14:14	VY101625
74-83-9	Bromomethane	10.9	U	1	2.30	10.9	ug/Kg	10/16/25 14:14	VY101625
75-00-3	Chloroethane	10.9	U	1	2.70	10.9	ug/Kg	10/16/25 14:14	VY101625
75-69-4	Trichlorofluoromethane	10.9	U	1	2.60	10.9	ug/Kg	10/16/25 14:14	VY101625
76-13-1	1,1,2-Trichlorotrifluoroethane	10.9	U	1	2.30	10.9	ug/Kg	10/16/25 14:14	VY101625
75-35-4	1,1-Dichloroethene	10.9	U	1	2.20	10.9	ug/Kg	10/16/25 14:14	VY101625
67-64-1	Acetone	110		1	10.3	54.3	ug/Kg	10/16/25 14:14	VY101625
75-15-0	Carbon Disulfide	4.90	J	1	2.30	10.9	ug/Kg	10/16/25 14:14	VY101625
1634-04-4	Methyl tert-butyl Ether	10.9	U	1	1.60	10.9	ug/Kg	10/16/25 14:14	VY101625
79-20-9	Methyl Acetate	10.9	U	1	3.30	10.9	ug/Kg	10/16/25 14:14	VY101625
75-09-2	Methylene Chloride	21.7	U	1	7.70	21.7	ug/Kg	10/16/25 14:14	VY101625
156-60-5	trans-1,2-Dichloroethene	10.9	U	1	1.90	10.9	ug/Kg	10/16/25 14:14	VY101625
75-34-3	1,1-Dichloroethane	10.9	U	1	1.70	10.9	ug/Kg	10/16/25 14:14	VY101625
110-82-7	Cyclohexane	10.9	U	1	1.70	10.9	ug/Kg	10/16/25 14:14	VY101625
78-93-3	2-Butanone	34.5	J	1	14.2	54.3	ug/Kg	10/16/25 14:14	VY101625
56-23-5	Carbon Tetrachloride	10.9	U	1	2.10	10.9	ug/Kg	10/16/25 14:14	VY101625
156-59-2	cis-1,2-Dichloroethene	10.9	U	1	1.60	10.9	ug/Kg	10/16/25 14:14	VY101625
74-97-5	Bromochloromethane	10.9	U	1	2.50	10.9	ug/Kg	10/16/25 14:14	VY101625
67-66-3	Chloroform	10.9	U	1	1.80	10.9	ug/Kg	10/16/25 14:14	VY101625
71-55-6	1,1,1-Trichloroethane	10.9	U	1	2.00	10.9	ug/Kg	10/16/25 14:14	VY101625
108-87-2	Methylcyclohexane	30.9		1	2.00	10.9	ug/Kg	10/16/25 14:14	VY101625
71-43-2	Benzene	10.9	U	1	1.70	10.9	ug/Kg	10/16/25 14:14	VY101625
107-06-2	1,2-Dichloroethane	10.9	U	1	1.70	10.9	ug/Kg	10/16/25 14:14	VY101625
79-01-6	Trichloroethene	10.9	U	1	1.80	10.9	ug/Kg	10/16/25 14:14	VY101625
78-87-5	1,2-Dichloropropane	10.9	U	1	2.00	10.9	ug/Kg	10/16/25 14:14	VY101625
75-27-4	Bromodichloromethane	10.9	U	1	1.70	10.9	ug/Kg	10/16/25 14:14	VY101625
108-10-1	4-Methyl-2-Pentanone	54.3	U	1	7.80	54.3	ug/Kg	10/16/25 14:14	VY101625
108-88-3	Toluene	10.9	U	1	1.70	10.9	ug/Kg	10/16/25 14:14	VY101625
10061-02-6	t-1,3-Dichloropropene	10.9	U	1	1.40	10.9	ug/Kg	10/16/25 14:14	VY101625
10061-01-5	cis-1,3-Dichloropropene	10.9	U	1	1.30	10.9	ug/Kg	10/16/25 14:14	VY101625
79-00-5	1,1,2-Trichloroethane	10.9	U	1	2.00	10.9	ug/Kg	10/16/25 14:14	VY101625
591-78-6	2-Hexanone	54.3	U	1	8.00	54.3	ug/Kg	10/16/25 14:14	VY101625
124-48-1	Dibromochloromethane	10.9	U	1	1.90	10.9	ug/Kg	10/16/25 14:14	VY101625
106-93-4	1,2-Dibromoethane	10.9	U	1	1.90	10.9	ug/Kg	10/16/25 14:14	VY101625
127-18-4	Tetrachloroethene	10.9	U	1	2.30	10.9	ug/Kg	10/16/25 14:14	VY101625
108-90-7	Chlorobenzene	10.9	U	1	2.00	10.9	ug/Kg	10/16/25 14:14	VY101625
100-41-4	Ethyl Benzene	10.9	U	1	1.50	10.9	ug/Kg	10/16/25 14:14	VY101625
179601-23-1	m/p-Xylenes	21.7	U	1	2.70	21.7	ug/Kg	10/16/25 14:14	VY101625
95-47-6	o-Xylene	10.9	U	1	1.80	10.9	ug/Kg	10/16/25 14:14	VY101625
100-42-5	Styrene	10.9	U	1	1.50	10.9	ug/Kg	10/16/25 14:14	VY101625
75-25-2	Bromoform	10.9	U	1	1.90	10.9	ug/Kg	10/16/25 14:14	VY101625

Report of Analysis

Client: AECOM	Date Collected: 10/15/25	
Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206	Date Received: 10/15/25	
Client Sample ID: PR132-SO3-010013-202510	SDG No.: Q3363	
Lab Sample ID: Q3363-04	Matrix: SOIL	
Analytical Method: 8260D	% Solid: 51.5	
Sample Wt/Vol: 4.47 g	Test: VOC-TCLVOA-10	
Level: LOW		
Final Vol: 5000 uL		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	10.9	U	1	1.70	10.9	ug/Kg	10/16/25 14:14	VY101625
79-34-5	1,1,2,2-Tetrachloroethane	10.9	U	1	2.60	10.9	ug/Kg	10/16/25 14:14	VY101625
541-73-1	1,3-Dichlorobenzene	10.9	U	1	3.70	10.9	ug/Kg	10/16/25 14:14	VY101625
106-46-7	1,4-Dichlorobenzene	10.9	U	1	3.40	10.9	ug/Kg	10/16/25 14:14	VY101625
95-50-1	1,2-Dichlorobenzene	10.9	U	1	3.10	10.9	ug/Kg	10/16/25 14:14	VY101625
96-12-8	1,2-Dibromo-3-Chloropropane	10.9	U	1	4.00	10.9	ug/Kg	10/16/25 14:14	VY101625
120-82-1	1,2,4-Trichlorobenzene	10.9	U	1	6.50	10.9	ug/Kg	10/16/25 14:14	VY101625
87-61-6	1,2,3-Trichlorobenzene	10.9	U	1	6.90	10.9	ug/Kg	10/16/25 14:14	VY101625
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	61.0			63 - 155	122%	SPK: 50		
1868-53-7	Dibromofluoromethane	53.4			70 - 134	107%	SPK: 50		
2037-26-5	Toluene-d8	53.5			74 - 123	107%	SPK: 50		
460-00-4	4-Bromofluorobenzene	55.6			17 - 146	111%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	633000							
540-36-3	1,4-Difluorobenzene	1210000							
3114-55-4	Chlorobenzene-d5	1200000							
3855-82-1	1,4-Dichlorobenzene-d4	469000							
TENTATIVE IDENTIFIED COMPOUNDS									
000091-17-8	Naphthalene, decahydro-	120	J			13.7	ug/Kg		
017301-23-4	Undecane, 2,6-dimethyl-	120	J			14.6	ug/Kg		

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

Quant Time: Oct 17 01:57:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

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

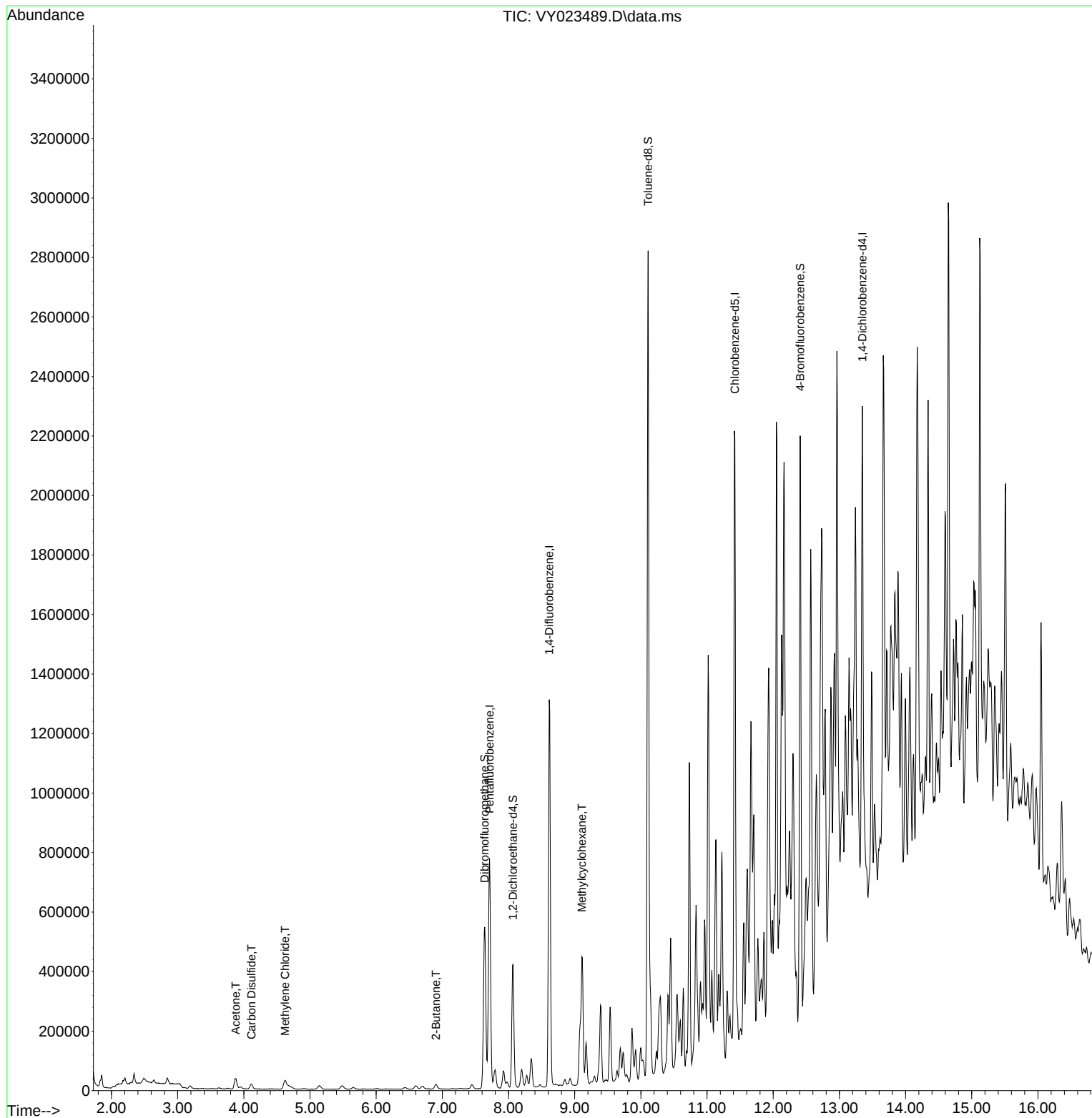
Internal Standards						
1) Pentafluorobenzene	7.713	168	632583	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	1213308	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	1199753	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	468564	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	322725	61.009	ug/l	0.00
Spiked Amount	50.000	Range 50 - 163	Recovery	= 122.020%		
35) Dibromofluoromethane	7.640	113	398193	53.411	ug/l	0.00
Spiked Amount	50.000	Range 54 - 147	Recovery	= 106.820%		
50) Toluene-d8	10.109	98	1485951	53.521	ug/l	0.00
Spiked Amount	50.000	Range 58 - 134	Recovery	= 107.040%		
62) 4-Bromofluorobenzene	12.408	95	509548	55.590	ug/l	0.00
Spiked Amount	50.000	Range 30 - 143	Recovery	= 111.180%		
Target Compounds						
						Qvalue
16) Acetone	3.879	43	65057	51.660	ug/l	99
17) Carbon Disulfide	4.116	76	36184	2.240	ug/l	99
20) Methylene Chloride	4.622	84	22635	3.324	ug/l #	89
25) 2-Butanone	6.903	43	24436	15.894	ug/l	92
39) Methylcyclohexane	9.110	83	183052	14.244	ug/l	92

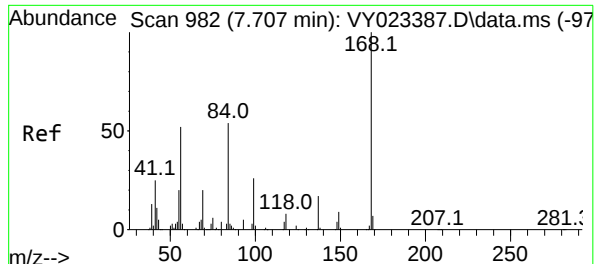
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

Quant Time: Oct 17 01:57:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

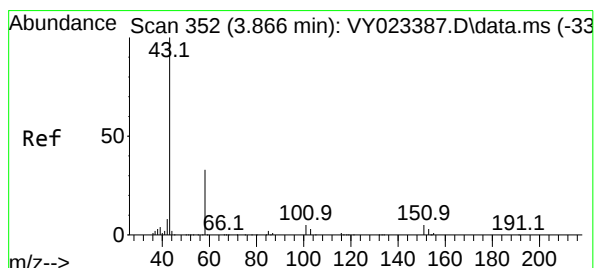
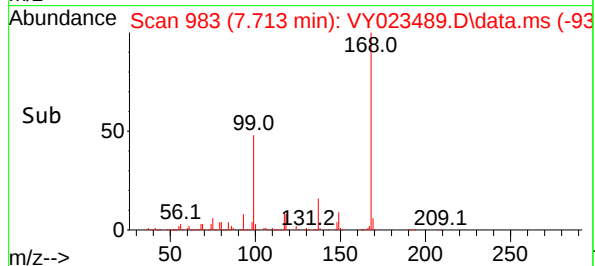
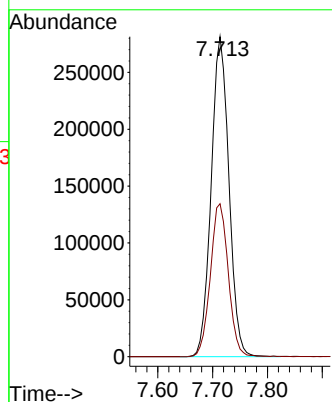
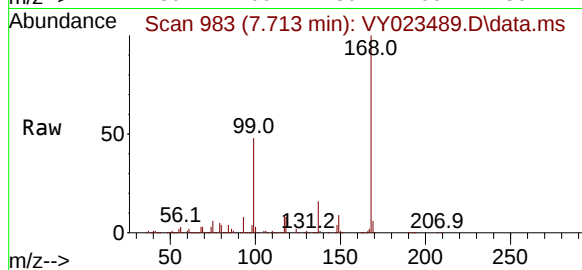




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 91
Delta R.T. 0.006 min
Lab File: VY023489.D
Acq: 16 Oct 2025 14:14

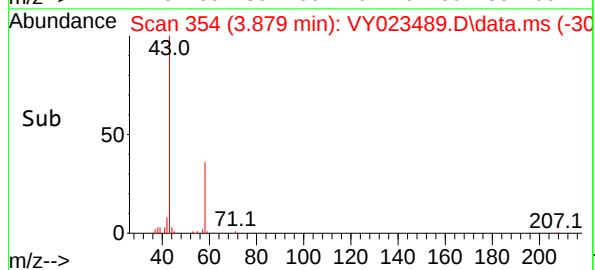
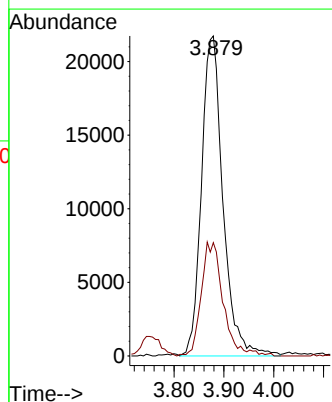
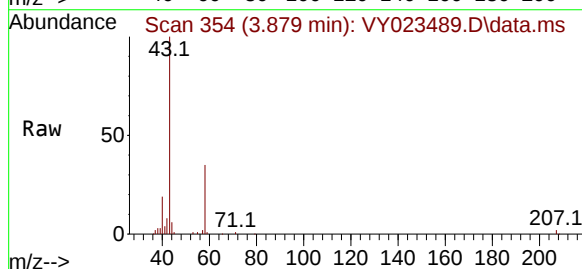
Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

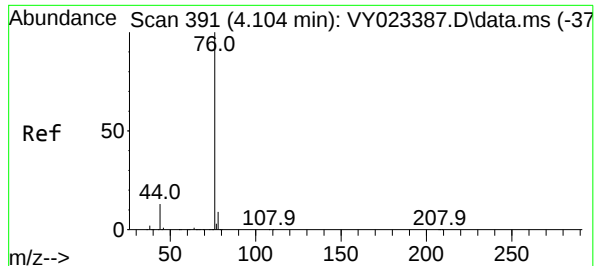
Tgt Ion:168 Resp: 632583
Ion Ratio Lower Upper
168 100
99 47.8 39.7 59.5



#16
Acetone
Concen: 51.660 ug/l
RT: 3.879 min Scan# 354
Delta R.T. 0.012 min
Lab File: VY023489.D
Acq: 16 Oct 2025 14:14

Tgt Ion: 43 Resp: 65057
Ion Ratio Lower Upper
43 100
58 35.4 27.7 41.5





#17

Carbon Disulfide

Concen: 2.240 ug/l

RT: 4.116 min Scan# 391

Delta R.T. 0.012 min

Lab File: VY023489.D

Acq: 16 Oct 2025 14:14

Instrument :

MSVOA_Y

ClientSampleId :

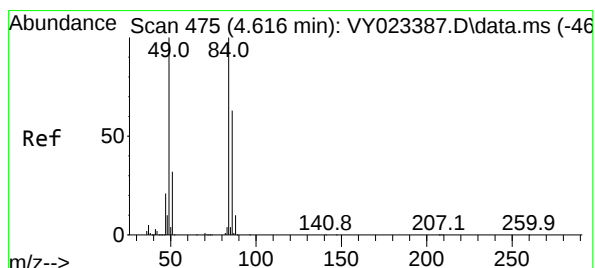
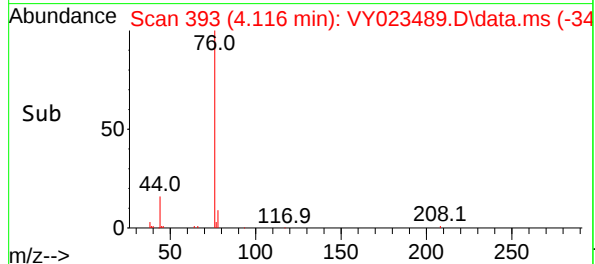
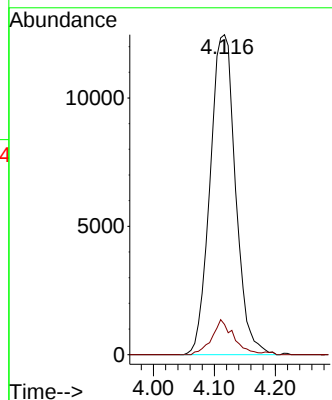
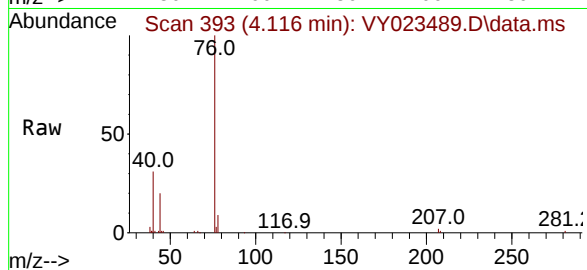
PR132-SO3-010013-20251015

Tgt Ion: 76 Resp: 36184

Ion Ratio Lower Upper

76 100

78 9.4 7.3 10.9



#20

Methylene Chloride

Concen: 3.324 ug/l

RT: 4.622 min Scan# 476

Delta R.T. 0.006 min

Lab File: VY023489.D

Acq: 16 Oct 2025 14:14

Tgt Ion: 84 Resp: 22635

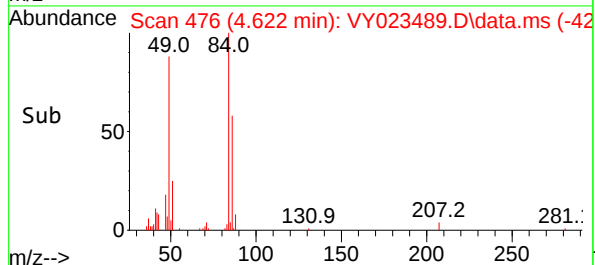
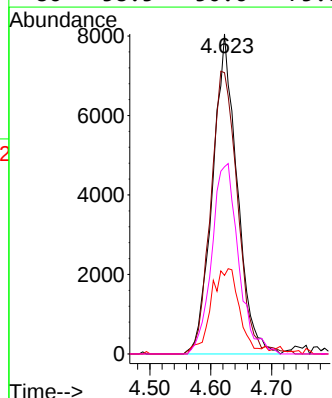
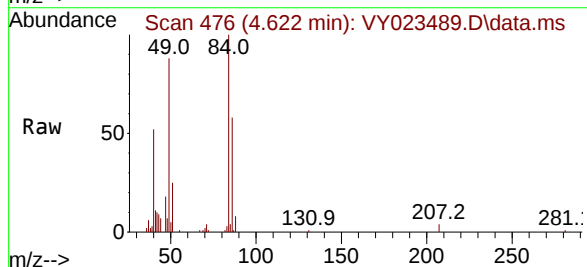
Ion Ratio Lower Upper

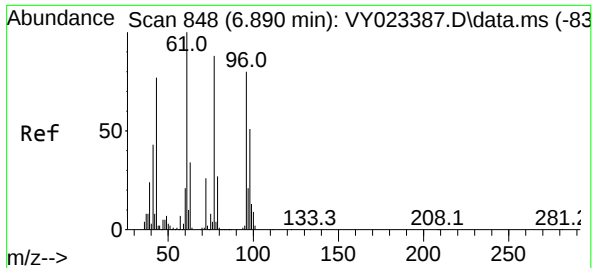
84 100

49 87.9 80.2 120.4

51 24.6 25.9 38.9#

86 58.5 50.6 75.8





#25

2-Butanone

Concen: 15.894 ug/l

RT: 6.903 min Scan# 848

Delta R.T. 0.012 min

Lab File: VY023489.D

Acq: 16 Oct 2025 14:14

Instrument :

MSVOA_Y

ClientSampleId :

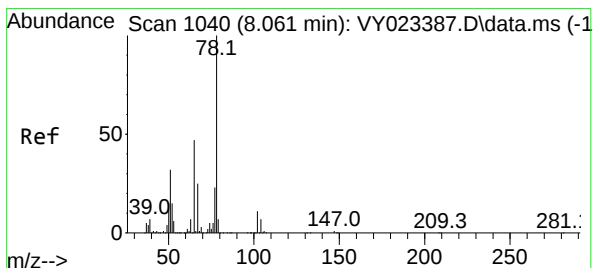
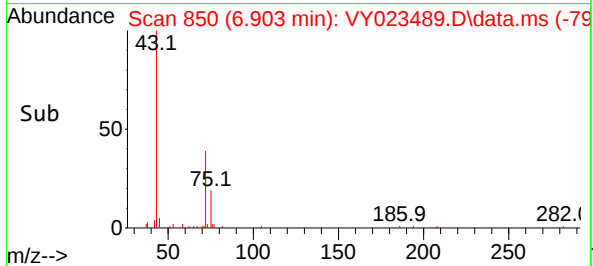
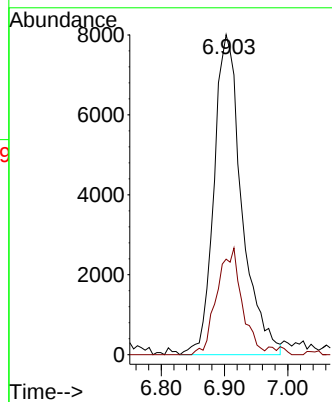
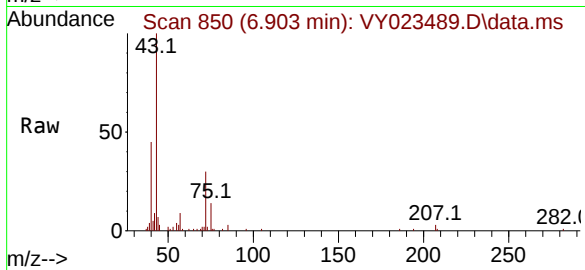
PR132-SO3-010013-20251015

Tgt Ion: 43 Resp: 24436

Ion Ratio Lower Upper

43 100

72 29.8 27.4 41.2



#33

1,2-Dichloroethane-d4

Concen: 61.009 ug/l

RT: 8.067 min Scan# 1041

Delta R.T. 0.006 min

Lab File: VY023489.D

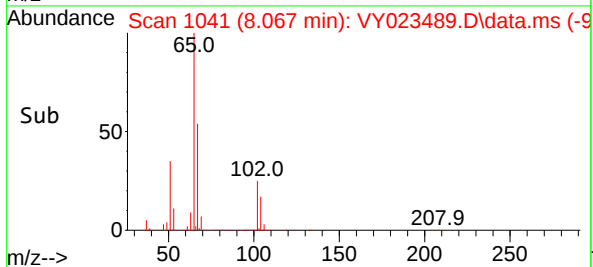
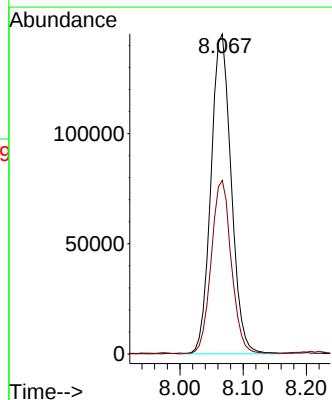
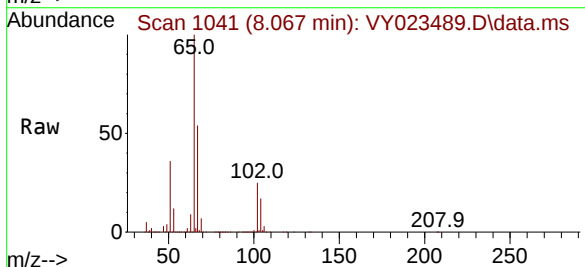
Acq: 16 Oct 2025 14:14

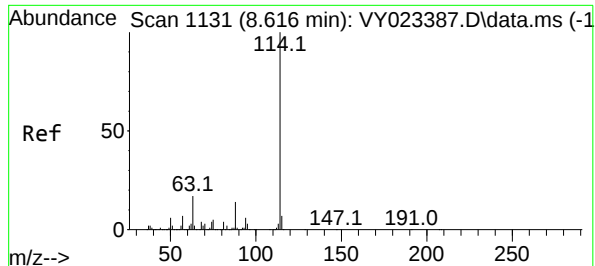
Tgt Ion: 65 Resp: 322725

Ion Ratio Lower Upper

65 100

67 53.4 0.0 105.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VY023489.D

Acq: 16 Oct 2025 14:14

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO3-010013-20251015

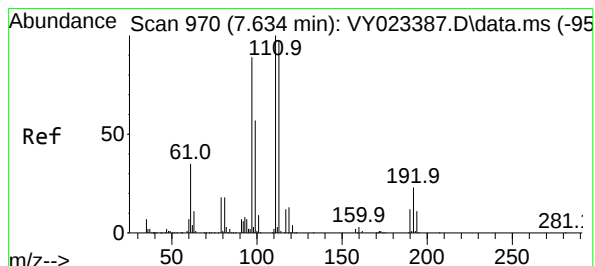
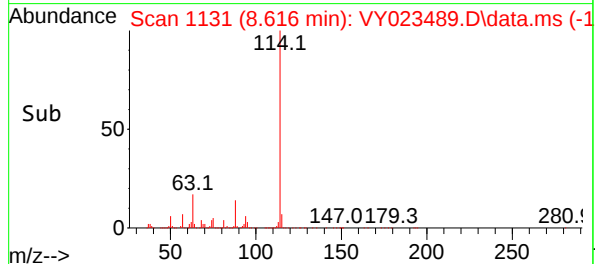
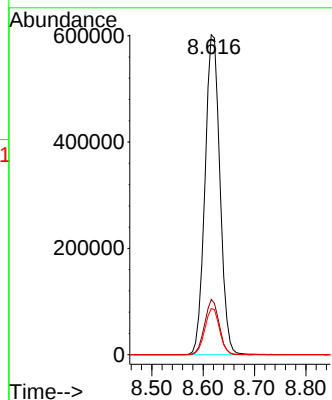
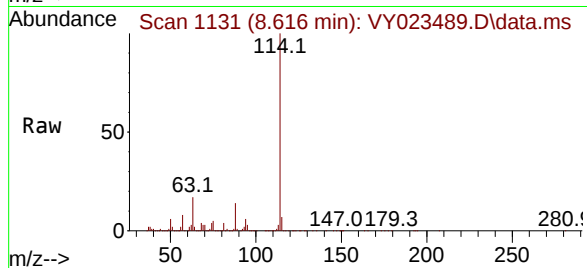
Tgt Ion:114 Resp: 1213308

Ion Ratio Lower Upper

114 100

63 17.3 0.0 34.2

88 14.4 0.0 28.4



#35

Dibromofluoromethane

Concen: 53.411 ug/l

RT: 7.640 min Scan# 971

Delta R.T. 0.006 min

Lab File: VY023489.D

Acq: 16 Oct 2025 14:14

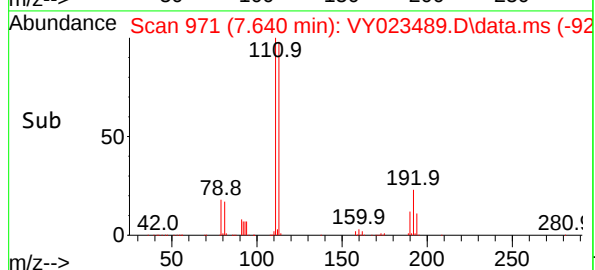
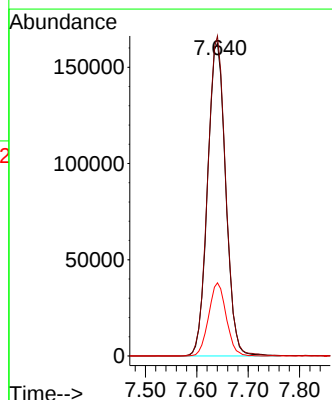
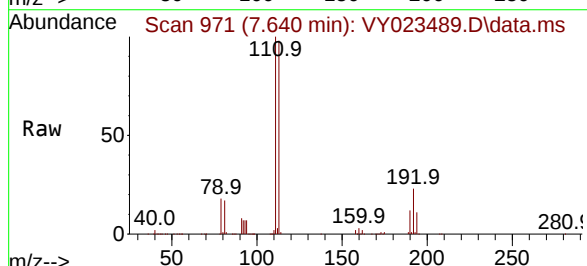
Tgt Ion:113 Resp: 398193

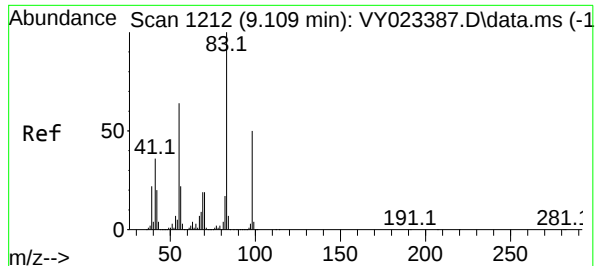
Ion Ratio Lower Upper

113 100

111 101.6 81.8 122.6

192 22.6 18.0 27.0





#39

Methylcyclohexane

Concen: 14.244 ug/l

RT: 9.110 min Scan# 11

Delta R.T. 0.000 min

Lab File: VY023489.D

Acq: 16 Oct 2025 14:14

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO3-010013-20251015

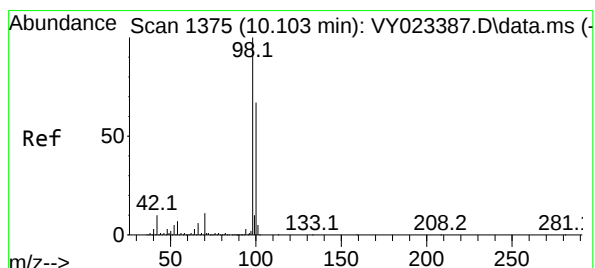
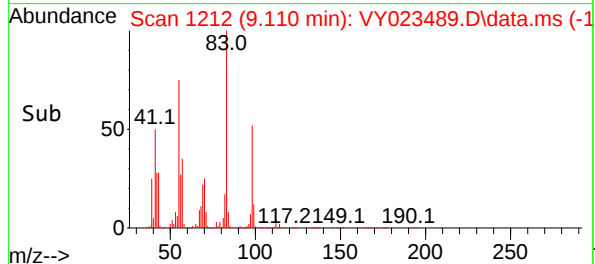
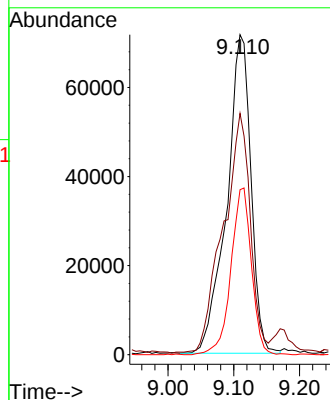
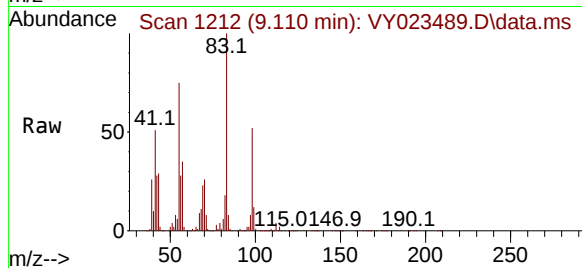
Tgt Ion: 83 Resp: 183052

Ion Ratio Lower Upper

83 100

55 74.9 51.4 77.2

98 51.6 40.4 60.6



#50

Toluene-d8

Concen: 53.521 ug/l

RT: 10.109 min Scan# 1376

Delta R.T. 0.006 min

Lab File: VY023489.D

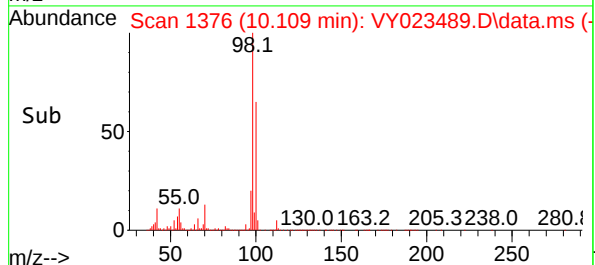
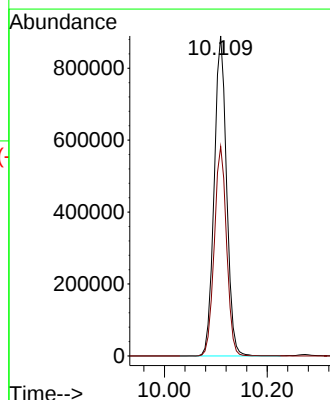
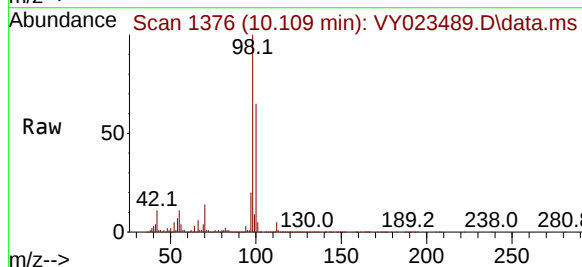
Acq: 16 Oct 2025 14:14

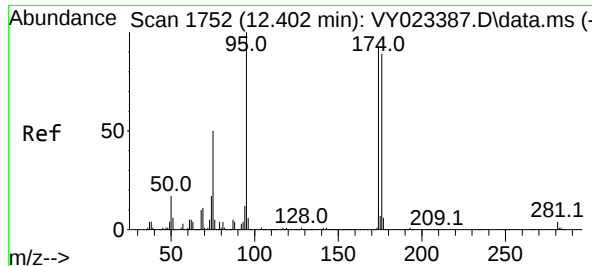
Tgt Ion: 98 Resp: 1485951

Ion Ratio Lower Upper

98 100

100 64.8 53.0 79.4





#62

4-Bromofluorobenzene

Concen: 55.590 ug/l

RT: 12.408 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY023489.D

Acq: 16 Oct 2025 14:14

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO3-010013-20251015

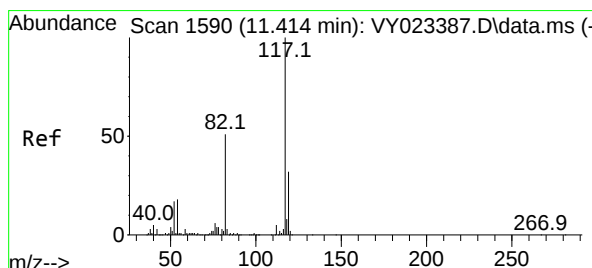
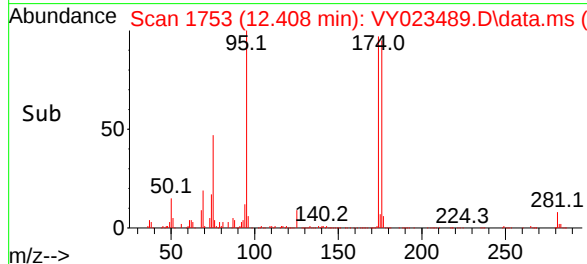
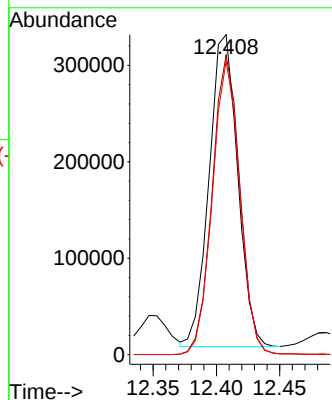
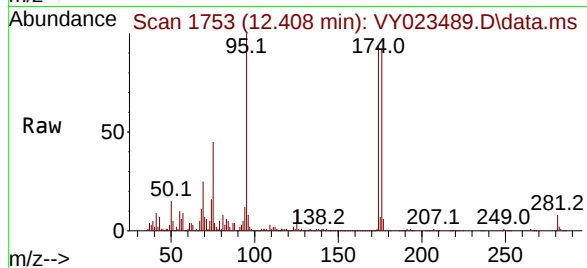
Tgt Ion: 95 Resp: 509548

Ion Ratio Lower Upper

95 100

174 93.0 0.0 192.8

176 90.6 0.0 187.6



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 1591

Delta R.T. 0.006 min

Lab File: VY023489.D

Acq: 16 Oct 2025 14:14

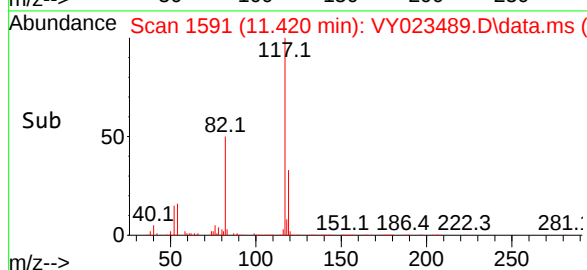
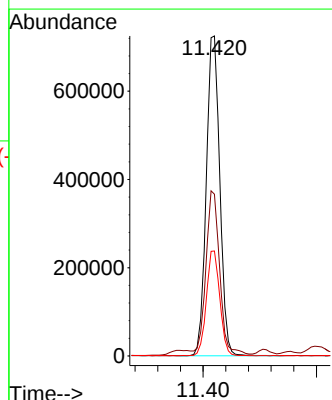
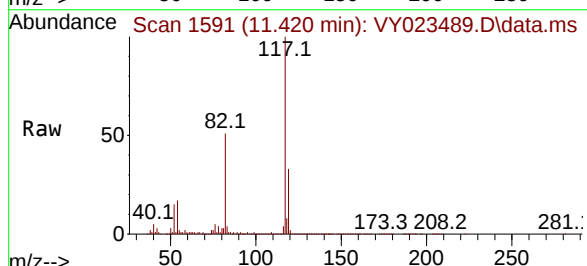
Tgt Ion: 117 Resp: 1199753

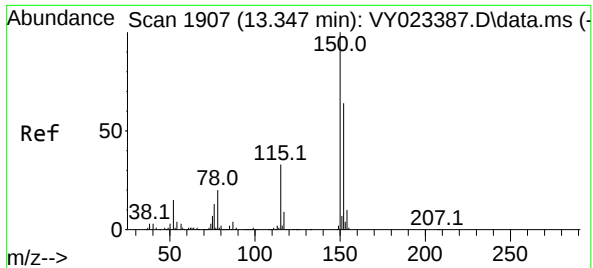
Ion Ratio Lower Upper

117 100

82 49.8 41.0 61.4

119 32.7 25.6 38.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.347 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY023489.D

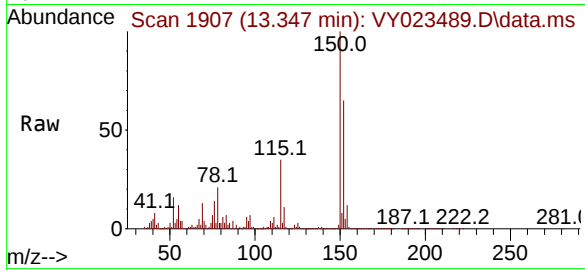
Acq: 16 Oct 2025 14:14

Instrument :

MSVOA_Y

ClientSampleId :

PR132-SO3-010013-20251015



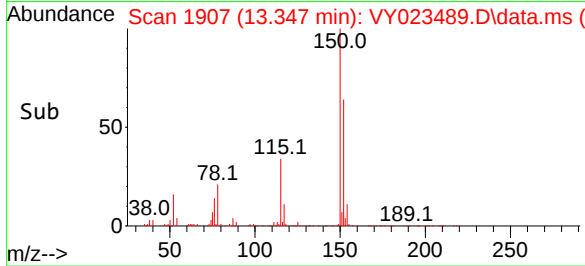
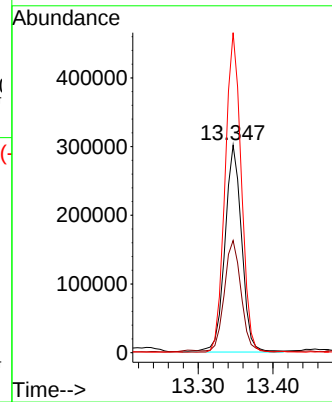
Tgt Ion:152 Resp: 468564

Ion	Ratio	Lower	Upper
-----	-------	-------	-------

152	100		
-----	-----	--	--

115	53.6	27.1	81.2
-----	------	------	------

150	148.9	0.0	347.4
-----	-------	-----	-------



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % 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_Y\methods\82Y100725S.M
Title : SW846 8260

Signal : TIC: VY023489.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.855	13	22	28	rVB2	41075	93281	1.80%	0.084%
2	2.342	97	102	108	rVB	32853	53390	1.03%	0.048%
3	3.879	343	354	361	rBV2	35218	103276	1.99%	0.093%
4	4.623	462	476	502	rBV7	30121	149211	2.87%	0.135%
5	7.640	959	971	977	rBV	543642	1358145	26.14%	1.225%
6	7.713	977	983	991	rVV	774169	1764433	33.96%	1.592%
7	7.799	991	997	1007	rVV3	62842	163403	3.15%	0.147%
8	7.921	1010	1017	1023	rVV2	57787	141997	2.73%	0.128%
9	8.067	1033	1041	1052	rVV	414081	932904	17.96%	0.842%
10	8.201	1055	1063	1069	rVV3	60351	153640	2.96%	0.139%
11	8.274	1069	1075	1080	rVV3	40764	96314	1.85%	0.087%
12	8.341	1080	1086	1097	rVB	95300	220255	4.24%	0.199%
13	8.616	1121	1131	1143	rBV	1301873	2629328	50.61%	2.372%
14	9.110	1199	1212	1218	rBV3	430067	1257548	24.21%	1.135%
15	9.170	1218	1222	1230	rVB	137690	264393	5.09%	0.239%
16	9.390	1249	1258	1265	rVB	258296	562277	10.82%	0.507%
17	9.536	1276	1282	1290	rVB	249871	470939	9.06%	0.425%
18	9.689	1302	1307	1311	rVV2	99335	184825	3.56%	0.167%
19	9.731	1311	1314	1320	rVB3	80425	141693	2.73%	0.128%
20	9.865	1329	1336	1341	rBV2	180537	379868	7.31%	0.343%
21	9.920	1341	1345	1351	rVB	96897	179199	3.45%	0.162%
22	10.000	1351	1358	1361	rBV3	105276	220097	4.24%	0.199%
23	10.109	1369	1376	1390	rBV	2771893	5195351	100.00%	4.687%
24	10.237	1392	1397	1399	rBV2	68587	114093	2.20%	0.103%
25	10.292	1399	1406	1414	rVB5	257048	733549	14.12%	0.662%
26	10.408	1417	1425	1428	rBV	250890	473487	9.11%	0.427%
27	10.451	1428	1432	1439	rVB	436416	723767	13.93%	0.653%
28	10.548	1441	1448	1452	rBV3	238115	515027	9.91%	0.465%
29	10.597	1452	1456	1459	rVB	119389	175100	3.37%	0.158%
30	10.640	1459	1463	1468	rVB	262614	398861	7.68%	0.360%
31	10.688	1468	1471	1473	rBV	50537	71350	1.37%	0.064%
32	10.731	1473	1478	1484	rVB	1013574	1584170	30.49%	1.429%
33	10.835	1484	1495	1502	rBV	533987	1307631	25.17%	1.180%
34	10.902	1502	1506	1509	rBV2	203065	332646	6.40%	0.300%
35	10.963	1513	1516	1520	rVV	393071	585201	11.26%	0.528%
36	11.018	1520	1525	1531	rVV	1274139	2222635	42.78%	2.005%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M
Title : SW846 8260

37	11.073	1531	1534	1538	rVB	207219	263350	5.07%	0.238%
38	11.134	1538	1544	1548	rBV2	643918	1143054	22.00%	1.031%
39	11.176	1548	1551	1554	rVV2	178755	256874	4.94%	0.232%
40	11.225	1554	1559	1567	rVB	692632	1353746	26.06%	1.221%
41	11.304	1567	1572	1576	rBV2	226033	400862	7.72%	0.362%
42	11.347	1576	1579	1584	rVB4	75696	98469	1.90%	0.089%
43	11.414	1585	1590	1601	rVB	2047132	3523288	67.82%	3.179%
44	11.505	1601	1605	1608	rBV2	38655	72359	1.39%	0.065%
45	11.554	1608	1613	1616	rBV	377198	588351	11.32%	0.531%
46	11.609	1616	1622	1626	rVV4	467910	1042005	20.06%	0.940%
47	11.664	1626	1631	1635	rVV	955976	1957942	37.69%	1.766%
48	11.707	1635	1638	1643	rVB2	694060	1094680	21.07%	0.988%
49	11.768	1643	1648	1652	rBV2	278515	485181	9.34%	0.438%
50	11.859	1660	1663	1667	rVB2	284074	404499	7.79%	0.365%
51	11.932	1667	1675	1681	rBV3	1172424	2862775	55.10%	2.583%
52	11.987	1681	1684	1686	rVV2	166116	200225	3.85%	0.181%
53	12.018	1686	1689	1690	rVV	218637	232620	4.48%	0.210%
54	12.048	1690	1694	1699	rVB	1779182	2450085	47.16%	2.210%
55	12.127	1699	1707	1709	rBV4	1054064	1792441	34.50%	1.617%
56	12.164	1709	1713	1719	rVB3	1466120	2746542	52.87%	2.478%
57	12.249	1724	1727	1730	rVV3	507569	898892	17.30%	0.811%
58	12.298	1730	1735	1742	rVB6	748228	1710934	32.93%	1.544%
59	12.408	1747	1753	1759	rBV2	1969439	3309475	63.70%	2.986%
60	12.499	1759	1768	1771	rBV7	430422	1169049	22.50%	1.055%
61	12.566	1775	1779	1786	rVB2	1495599	2656374	51.13%	2.397%
62	12.652	1786	1793	1798	rBV6	737978	1823085	35.09%	1.645%
63	12.731	1799	1806	1811	rVV4	1248935	3226243	62.10%	2.911%
64	12.786	1812	1815	1820	rVB	781979	1198806	23.07%	1.082%
65	12.871	1820	1829	1833	rBV5	856025	2205464	42.45%	1.990%
66	12.926	1833	1838	1841	rVV3	732112	1498924	28.85%	1.352%
67	12.962	1841	1844	1852	rVB2	1717455	2690790	51.79%	2.428%
68	13.090	1862	1865	1870	rBV2	448952	740649	14.26%	0.668%
69	13.145	1871	1874	1877	rBV2	499305	721558	13.89%	0.651%
70	13.243	1882	1890	1894	rBV4	1034936	2186212	42.08%	1.972%
71	13.347	1902	1907	1917	rVB	1551584	2652280	51.05%	2.393%
72	13.487	1926	1930	1934	rVV3	646817	923867	17.78%	0.833%
73	13.529	1935	1937	1944	rVB6	255601	448494	8.63%	0.405%
74	13.664	1954	1959	1964	rBV4	1608016	2981170	57.38%	2.690%
75	13.712	1965	1967	1972	rVV3	598808	1020899	19.65%	0.921%
76	13.779	1974	1978	1984	rVV6	664065	1921085	36.98%	1.733%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % 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_Y\methods\82Y100725S.M
Title : SW846 8260

77	13.840	1985	1988	1993	rVV5	762687	1824745	35.12%	1.646%
78	13.883	1993	1995	2000	rVV3	819590	1298417	24.99%	1.171%
79	13.938	2001	2004	2008	rVB	635128	834605	16.06%	0.753%
80	13.999	2009	2014	2018	rBV6	547086	855668	16.47%	0.772%
81	14.066	2019	2025	2030	rBV5	624311	1304787	25.11%	1.177%
82	14.121	2030	2034	2037	rBV4	290372	407538	7.84%	0.368%
83	14.176	2038	2043	2051	rBV5	1644949	3551170	68.35%	3.204%
84	14.340	2066	2070	2074	rVB2	1285721	1729830	33.30%	1.561%
85	14.535	2099	2102	2105	rBV4	391645	562490	10.83%	0.507%
86	14.596	2108	2112	2117	rVV3	895644	1794573	34.54%	1.619%
87	14.645	2117	2120	2127	rVB2	1902515	3016728	58.07%	2.722%
88	14.761	2137	2139	2142	rBV2	301646	365260	7.03%	0.330%
89	14.858	2152	2155	2159	rVB4	633912	831178	16.00%	0.750%
90	15.121	2194	2198	2205	rBV2	1754984	2840368	54.67%	2.563%
91	15.346	2232	2235	2242	rVB8	337885	680060	13.09%	0.614%
92	15.511	2257	2262	2267	rVB3	1133887	2025173	38.98%	1.827%
93	16.047	2345	2350	2356	rVB	872262	1478864	28.47%	1.334%
94	16.358	2397	2401	2407	rVB4	307976	535064	10.30%	0.483%

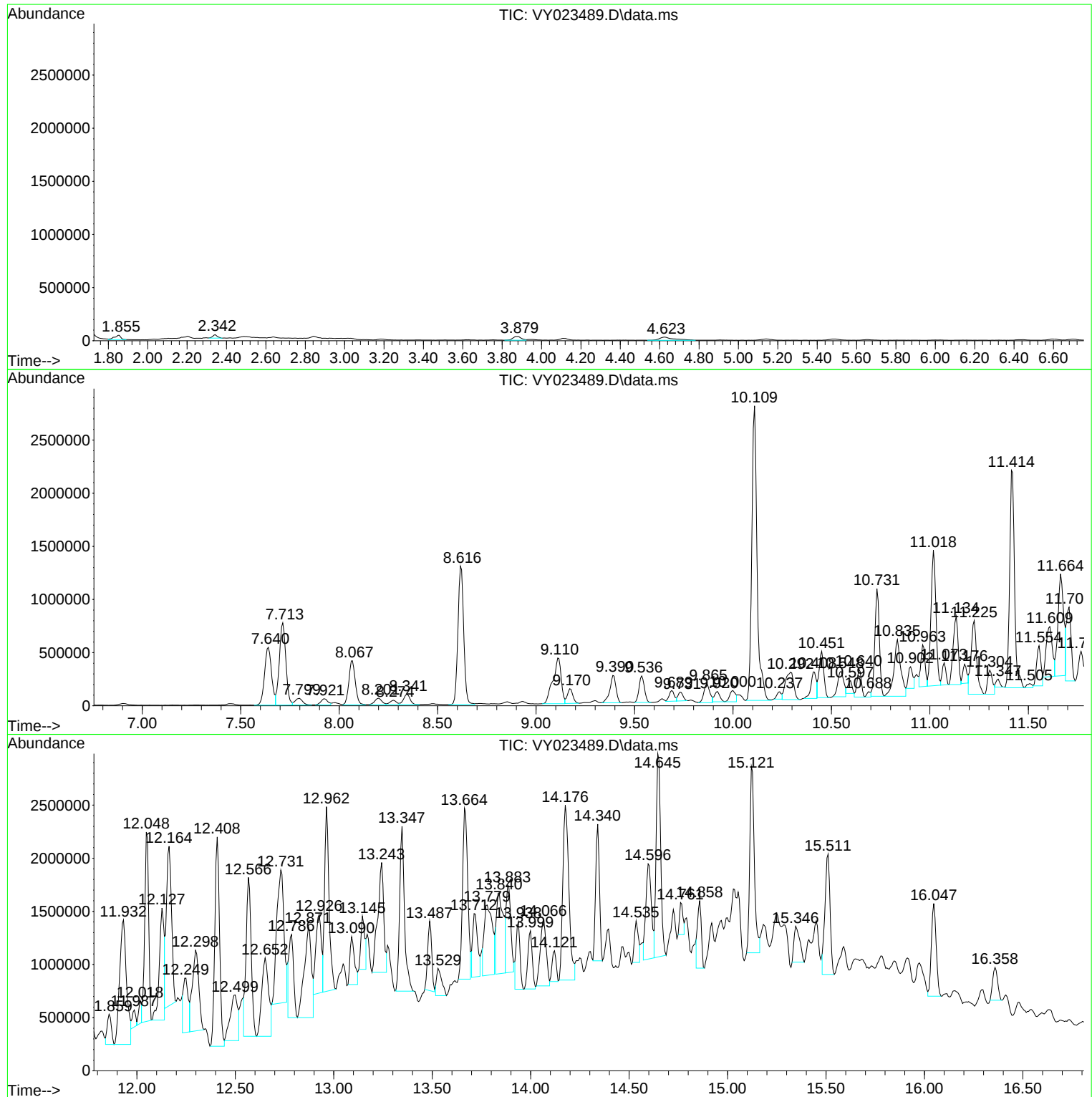
Sum of corrected areas: 110843400

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

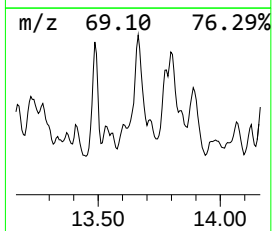
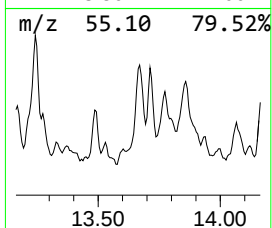
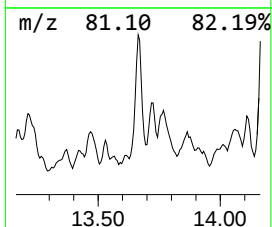
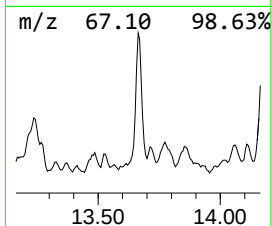
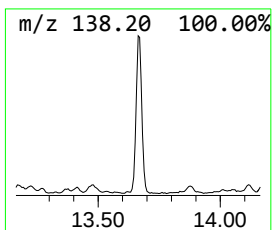
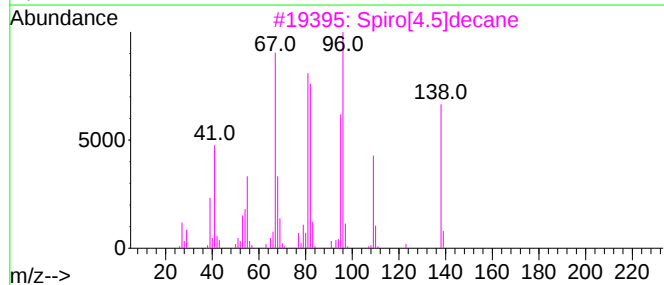
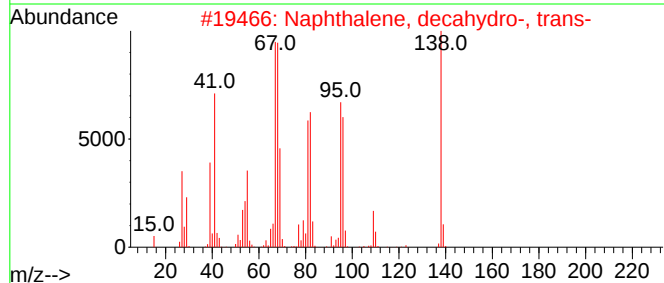
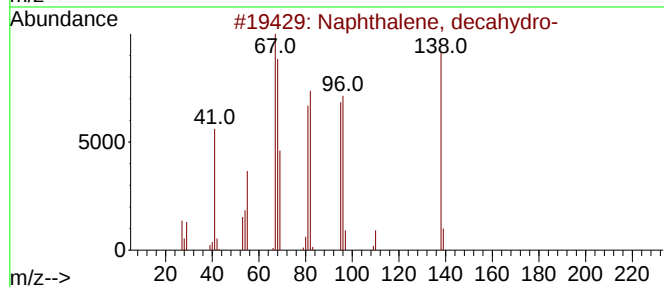
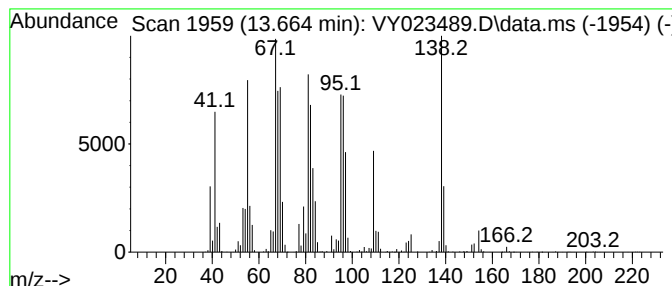
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 7 Naphthalene, decahydro- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.664	56.20 ug/l	2981170	1,4-Dichlorobenzene-d4	13.347

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Naphthalene, decahydro-	138	C10H18	000091-17-8	93
2			Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	87
3			Spiro[4.5]decane	138	C10H18	000176-63-6	64
4			Cyclohexane, 1-methyl-4-(1-methy...	138	C10H18	001124-25-0	60
5			Naphthalene, decahydro-, cis-	138	C10H18	000493-01-6	53



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

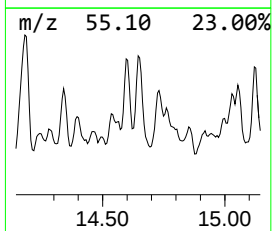
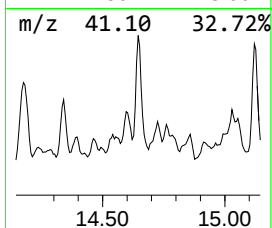
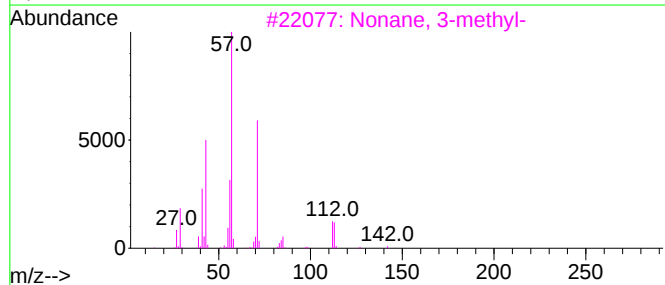
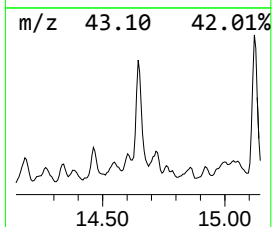
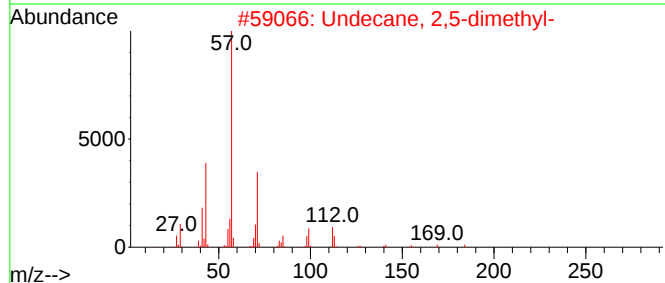
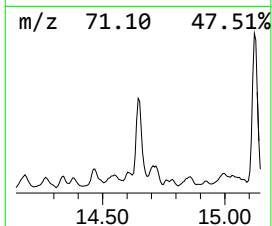
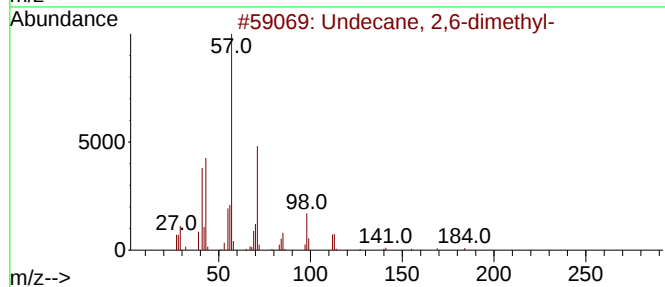
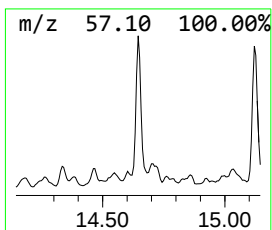
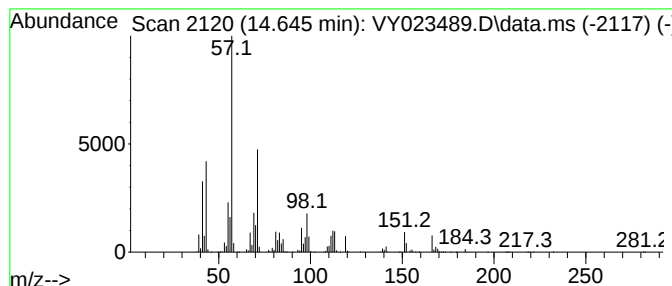
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

Peak Number 9 Undecane, 2,6-dimethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.645	56.87 ug/l	3016730	1,4-Dichlorobenzene-d4	13.347

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	93
2			Undecane, 2,5-dimethyl-	184	C13H28	017301-22-3	70
3			Nonane, 3-methyl-	142	C10H22	005911-04-6	52
4			Sulfurous acid, decyl 2-ethylhex...	334	C18H38O3S	1000309-19-3	50
5			Sulfurous acid, butyl octyl ester	250	C12H26O3S	1000309-17-5	47



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023489.D
Acq On : 16 Oct 2025 14:14
Operator : SY/MD
Sample : Q3363-04
Misc : 4.47g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PR132-SO3-010013-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Naphthalene, de...	13.664	56.2	ug/l	2981170	4	13.347	2652280	50.0
Undecane, 2,6-d...	14.645	56.9	ug/l	3016730	4	13.347	2652280	50.0

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: COMP01-20251015
 Lab Sample ID: Q3363-05
 Analytical Method: 8260D
 Sample Wt/Vol: 5.32 g

Level : LOW
 Final Vol: 5000 uL

Date Collected: 10/15/25
 Date Received: 10/15/25
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 55.4
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	8.50	U	1	1.90	8.50	ug/Kg	10/20/25 12:44	VW102025
74-87-3	Chloromethane	8.50	U	1	1.90	8.50	ug/Kg	10/20/25 12:44	VW102025
75-01-4	Vinyl Chloride	8.50	U	1	1.30	8.50	ug/Kg	10/20/25 12:44	VW102025
74-83-9	Bromomethane	8.50	U	1	1.80	8.50	ug/Kg	10/20/25 12:44	VW102025
75-00-3	Chloroethane	8.50	U	1	2.10	8.50	ug/Kg	10/20/25 12:44	VW102025
75-69-4	Trichlorofluoromethane	8.50	U	1	2.10	8.50	ug/Kg	10/20/25 12:44	VW102025
76-13-1	1,1,2-Trichlorotrifluoroethane	8.50	U	1	1.80	8.50	ug/Kg	10/20/25 12:44	VW102025
75-35-4	1,1-Dichloroethene	8.50	U	1	1.70	8.50	ug/Kg	10/20/25 12:44	VW102025
67-64-1	Acetone	210		1	8.00	42.4	ug/Kg	10/20/25 12:44	VW102025
75-15-0	Carbon Disulfide	3.40	J	1	1.80	8.50	ug/Kg	10/20/25 12:44	VW102025
1634-04-4	Methyl tert-butyl Ether	8.50	U	1	1.20	8.50	ug/Kg	10/20/25 12:44	VW102025
79-20-9	Methyl Acetate	8.50	U	1	2.60	8.50	ug/Kg	10/20/25 12:44	VW102025
75-09-2	Methylene Chloride	17.0	U	1	6.00	17.0	ug/Kg	10/20/25 12:44	VW102025
156-60-5	trans-1,2-Dichloroethene	8.50	U	1	1.50	8.50	ug/Kg	10/20/25 12:44	VW102025
75-34-3	1,1-Dichloroethane	8.50	U	1	1.40	8.50	ug/Kg	10/20/25 12:44	VW102025
110-82-7	Cyclohexane	8.50	U	1	1.30	8.50	ug/Kg	10/20/25 12:44	VW102025
78-93-3	2-Butanone	53.2		1	11.1	42.4	ug/Kg	10/20/25 12:44	VW102025
56-23-5	Carbon Tetrachloride	8.50	U	1	1.60	8.50	ug/Kg	10/20/25 12:44	VW102025
156-59-2	cis-1,2-Dichloroethene	8.50	U	1	1.30	8.50	ug/Kg	10/20/25 12:44	VW102025
74-97-5	Bromochloromethane	8.50	U	1	2.00	8.50	ug/Kg	10/20/25 12:44	VW102025
67-66-3	Chloroform	8.50	U	1	1.40	8.50	ug/Kg	10/20/25 12:44	VW102025
71-55-6	1,1,1-Trichloroethane	8.50	U	1	1.60	8.50	ug/Kg	10/20/25 12:44	VW102025
108-87-2	Methylcyclohexane	8.50	U	1	1.50	8.50	ug/Kg	10/20/25 12:44	VW102025
71-43-2	Benzene	8.50	U	1	1.30	8.50	ug/Kg	10/20/25 12:44	VW102025
107-06-2	1,2-Dichloroethane	8.50	U	1	1.30	8.50	ug/Kg	10/20/25 12:44	VW102025
79-01-6	Trichloroethene	8.50	U	1	1.40	8.50	ug/Kg	10/20/25 12:44	VW102025
78-87-5	1,2-Dichloropropane	8.50	U	1	1.50	8.50	ug/Kg	10/20/25 12:44	VW102025
75-27-4	Bromodichloromethane	8.50	U	1	1.30	8.50	ug/Kg	10/20/25 12:44	VW102025
108-10-1	4-Methyl-2-Pentanone	42.4	U	1	6.10	42.4	ug/Kg	10/20/25 12:44	VW102025
108-88-3	Toluene	8.50	U	1	1.30	8.50	ug/Kg	10/20/25 12:44	VW102025
10061-02-6	t-1,3-Dichloropropene	8.50	U	1	1.10	8.50	ug/Kg	10/20/25 12:44	VW102025
10061-01-5	cis-1,3-Dichloropropene	8.50	U	1	1.10	8.50	ug/Kg	10/20/25 12:44	VW102025
79-00-5	1,1,2-Trichloroethane	8.50	U	1	1.60	8.50	ug/Kg	10/20/25 12:44	VW102025
591-78-6	2-Hexanone	42.4	U	1	6.30	42.4	ug/Kg	10/20/25 12:44	VW102025
124-48-1	Dibromochloromethane	8.50	U	1	1.50	8.50	ug/Kg	10/20/25 12:44	VW102025
106-93-4	1,2-Dibromoethane	8.50	U	1	1.50	8.50	ug/Kg	10/20/25 12:44	VW102025
127-18-4	Tetrachloroethene	8.50	U	1	1.80	8.50	ug/Kg	10/20/25 12:44	VW102025
108-90-7	Chlorobenzene	8.50	U	1	1.50	8.50	ug/Kg	10/20/25 12:44	VW102025
100-41-4	Ethyl Benzene	8.50	U	1	1.10	8.50	ug/Kg	10/20/25 12:44	VW102025
179601-23-1	m/p-Xylenes	17.0	U	1	2.10	17.0	ug/Kg	10/20/25 12:44	VW102025
95-47-6	o-Xylene	8.50	U	1	1.40	8.50	ug/Kg	10/20/25 12:44	VW102025
100-42-5	Styrene	8.50	U	1	1.20	8.50	ug/Kg	10/20/25 12:44	VW102025
75-25-2	Bromoform	8.50	U	1	1.50	8.50	ug/Kg	10/20/25 12:44	VW102025

Report of Analysis

Client:	AECOM	Date Collected:	10/15/25
Project:	AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206	Date Received:	10/15/25
Client Sample ID:	COMP01-20251015	SDG No.:	Q3363
Lab Sample ID:	Q3363-05	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	55.4
Sample Wt/Vol:	5.32 g	Level :	LOW
		Final Vol:	5000 uL
		Test:	VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	8.50	U	1	1.30	8.50	ug/Kg	10/20/25 12:44	VW102025
79-34-5	1,1,2,2-Tetrachloroethane	8.50	U	1	2.10	8.50	ug/Kg	10/20/25 12:44	VW102025
541-73-1	1,3-Dichlorobenzene	8.50	U	1	2.90	8.50	ug/Kg	10/20/25 12:44	VW102025
106-46-7	1,4-Dichlorobenzene	8.50	U	1	2.60	8.50	ug/Kg	10/20/25 12:44	VW102025
95-50-1	1,2-Dichlorobenzene	8.50	U	1	2.50	8.50	ug/Kg	10/20/25 12:44	VW102025
96-12-8	1,2-Dibromo-3-Chloropropane	8.50	U	1	3.10	8.50	ug/Kg	10/20/25 12:44	VW102025
120-82-1	1,2,4-Trichlorobenzene	8.50	U	1	5.00	8.50	ug/Kg	10/20/25 12:44	VW102025
87-61-6	1,2,3-Trichlorobenzene	8.50	U	1	5.40	8.50	ug/Kg	10/20/25 12:44	VW102025
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	66.7			63 - 155	133%	SPK: 50		
1868-53-7	Dibromofluoromethane	57.1			70 - 134	114%	SPK: 50		
2037-26-5	Toluene-d8	52.0			74 - 123	104%	SPK: 50		
460-00-4	4-Bromofluorobenzene	53.8			17 - 146	108%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	173000							
540-36-3	1,4-Difluorobenzene	385000							
3114-55-4	Chlorobenzene-d5	402000							
3855-82-1	1,4-Dichlorobenzene-d4	189000							

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032382.D
Acq On : 20 Oct 2025 12:44
Operator : SY/MD
Sample : Q3363-05
Misc : 5.32g/5mL/MSVOA_W/SOIL/B
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

Quant Time: Oct 21 01:25:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

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

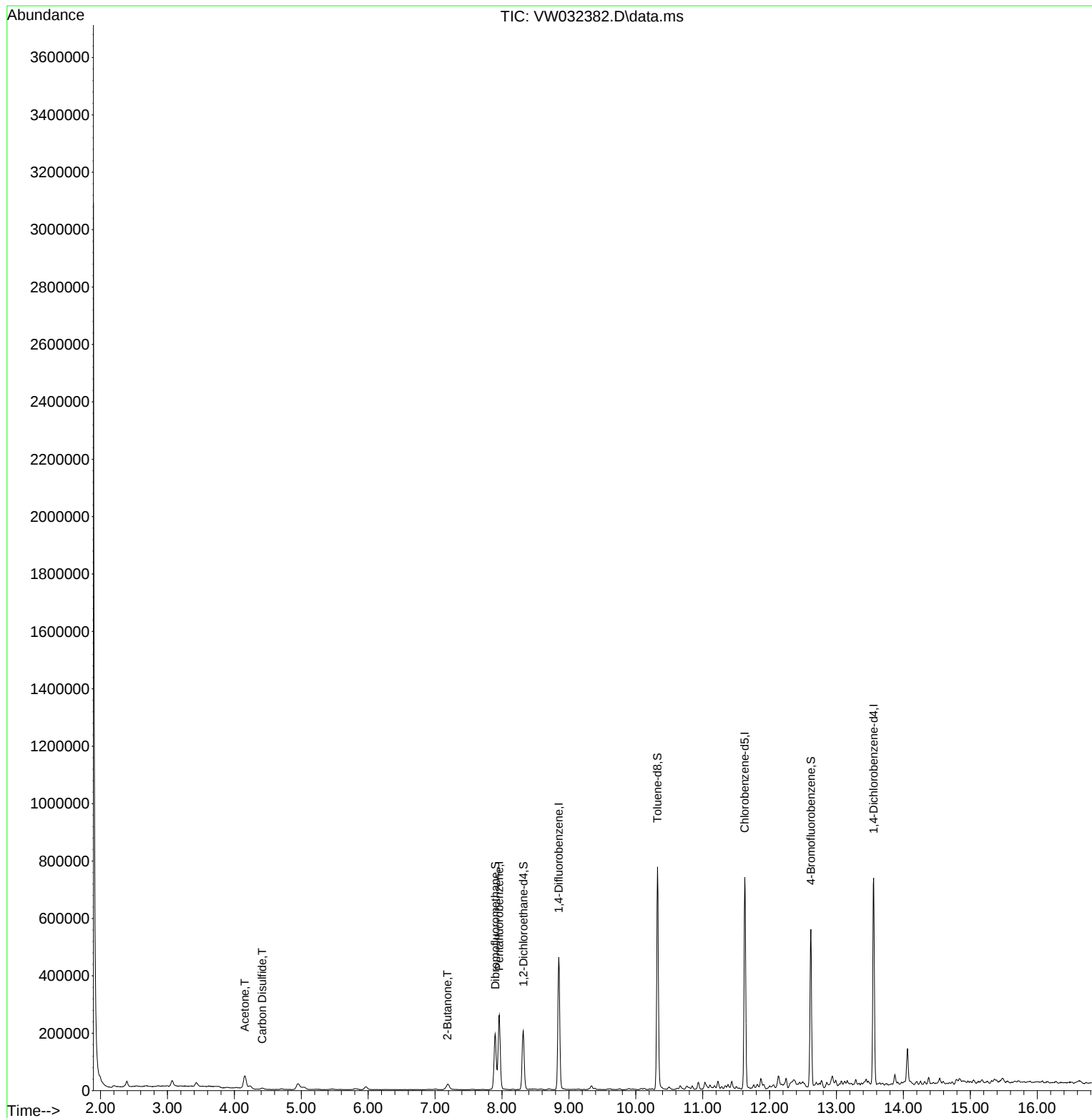
Internal Standards						
1) Pentafluorobenzene	7.959	168	173392	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.849	114	385425	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	401644	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	188999	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.319	65	168574	66.656	ug/l	0.00
Spiked Amount	50.000	Range 63 - 155	Recovery	=	133.320%	
35) Dibromofluoromethane	7.898	113	142606	57.133	ug/l	0.00
Spiked Amount	50.000	Range 70 - 134	Recovery	=	114.260%	
50) Toluene-d8	10.324	98	479079	52.004	ug/l	0.00
Spiked Amount	50.000	Range 74 - 123	Recovery	=	104.000%	
62) 4-Bromofluorobenzene	12.617	95	187434	53.830	ug/l	0.00
Spiked Amount	50.000	Range 17 - 146	Recovery	=	107.660%	
Target Compounds						
						Qvalue
16) Acetone	4.155	43	84947	121.306	ug/l	98
17) Carbon Disulfide	4.417	76	10689	2.005	ug/l #	94
25) 2-Butanone	7.185	43	29917	31.368	ug/l	93

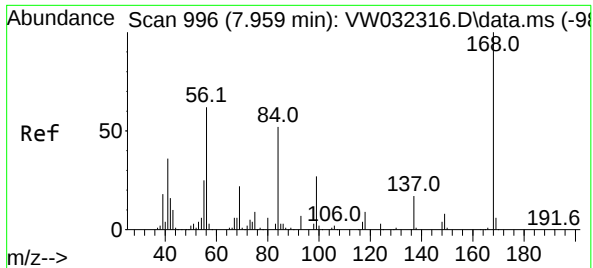
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032382.D
Acq On : 20 Oct 2025 12:44
Operator : SY/MD
Sample : Q3363-05
Misc : 5.32g/5mL/MSVOA_W/SOIL/B
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

Quant Time: Oct 21 01:25:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

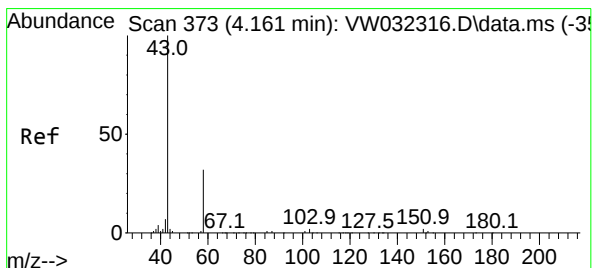
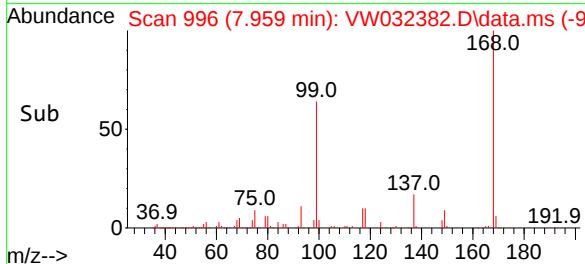
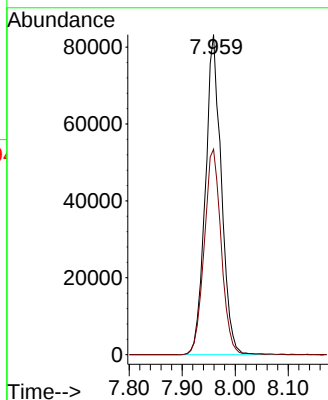
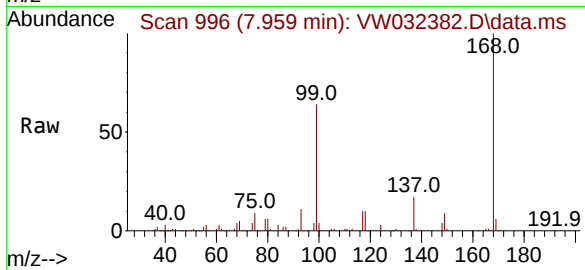




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.959 min Scan# 996
Delta R.T. -0.006 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

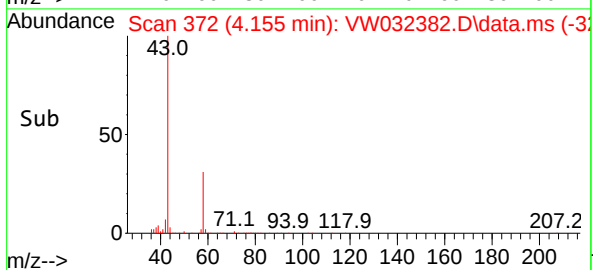
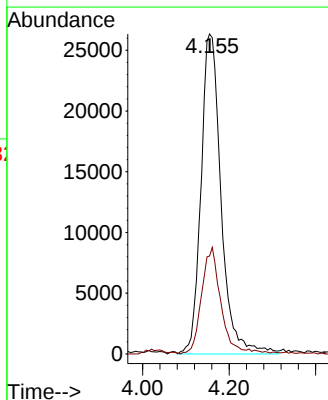
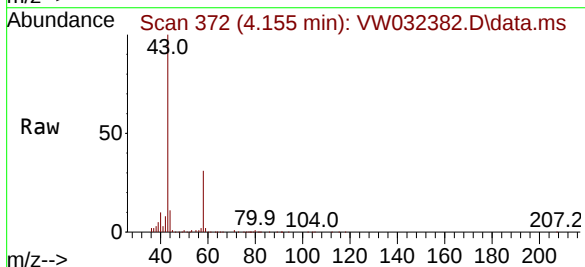
Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

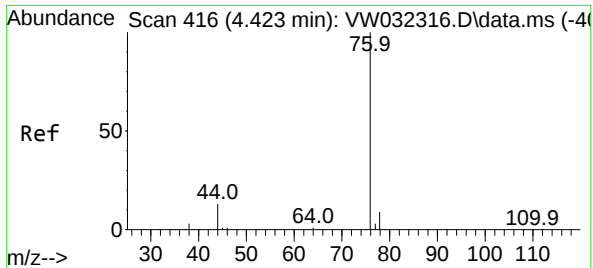
Tgt Ion:168 Resp: 173392
Ion Ratio Lower Upper
168 100
99 64.2 49.3 73.9



#16
Acetone
Concen: 121.306 ug/l
RT: 4.155 min Scan# 372
Delta R.T. -0.006 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

Tgt Ion: 43 Resp: 84947
Ion Ratio Lower Upper
43 100
58 30.3 25.3 37.9

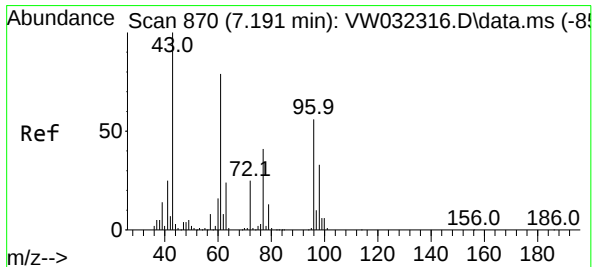
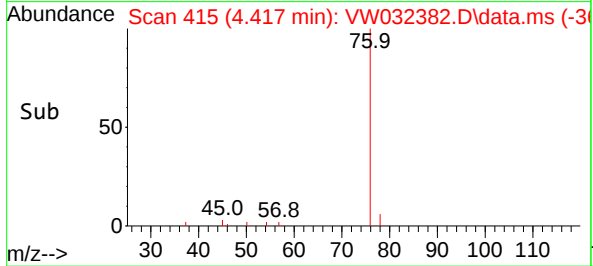
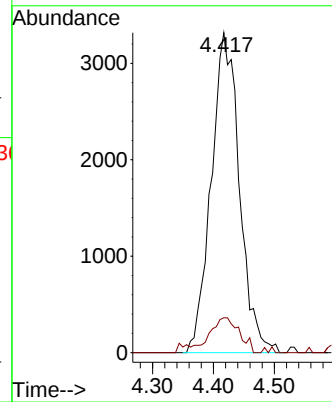
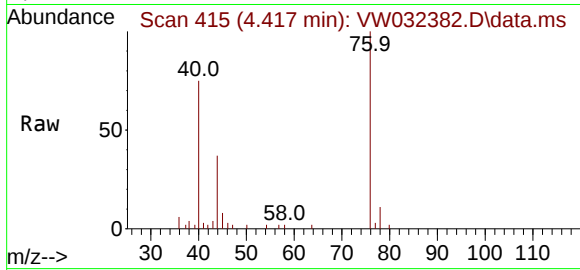




#17
Carbon Disulfide
Concen: 2.005 ug/l
RT: 4.417 min Scan# 416
Delta R.T. -0.006 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

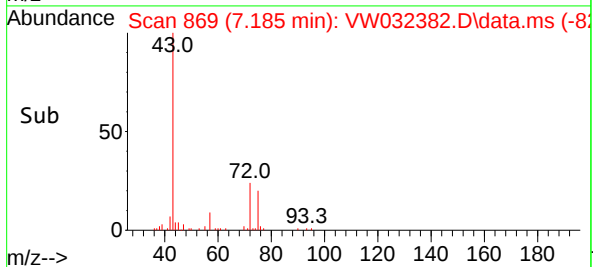
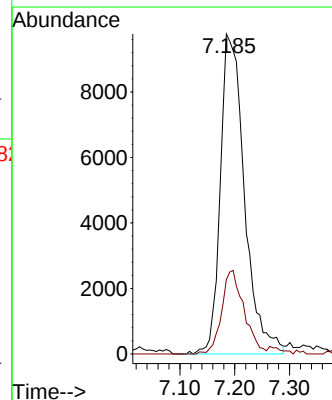
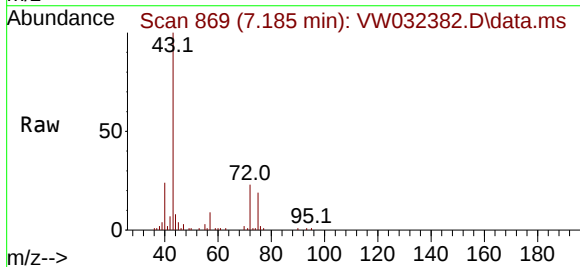
Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

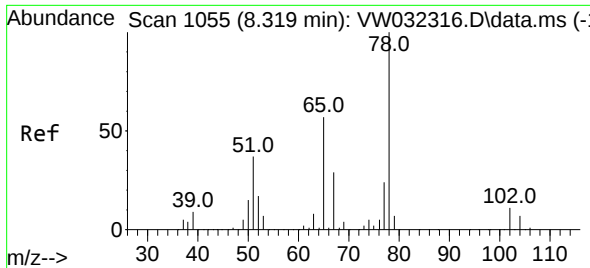
Tgt Ion: 76 Resp: 10689
Ion Ratio Lower Upper
76 100
78 10.9 7.0 10.6#



#25
2-Butanone
Concen: 31.368 ug/l
RT: 7.185 min Scan# 869
Delta R.T. -0.006 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

Tgt Ion: 43 Resp: 29917
Ion Ratio Lower Upper
43 100
72 23.3 21.4 32.2

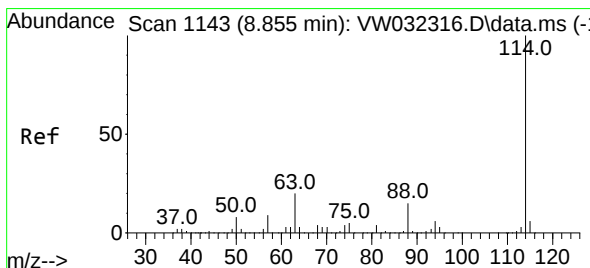
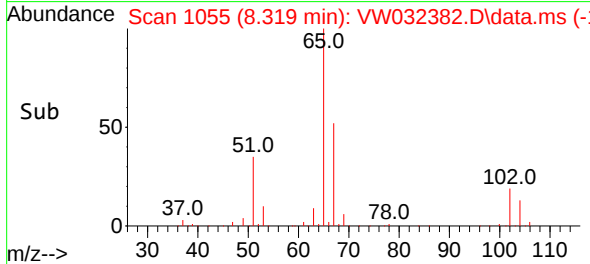
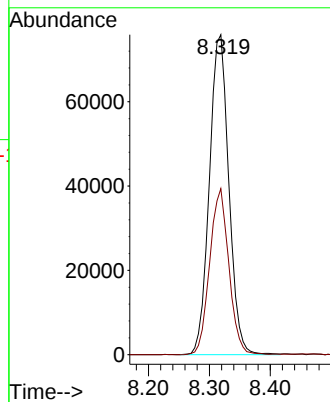
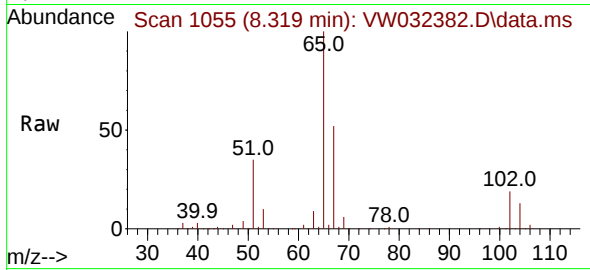




#33
1,2-Dichloroethane-d4
Concen: 66.656 ug/l
RT: 8.319 min Scan# 1055
Delta R.T. -0.000 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

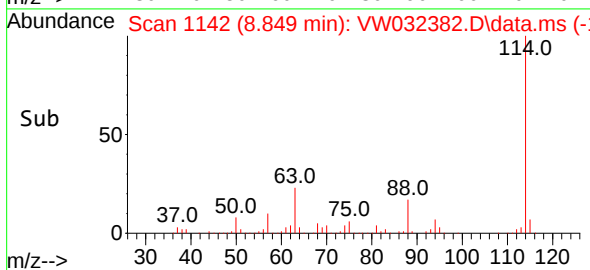
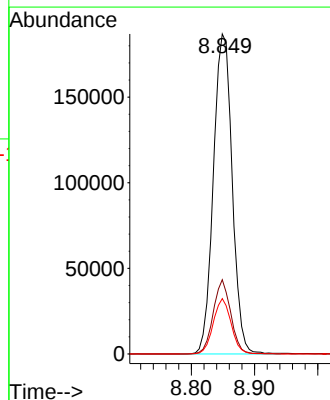
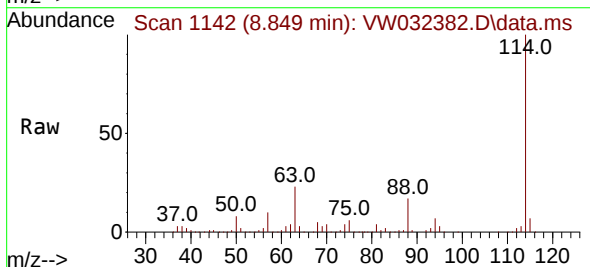
Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

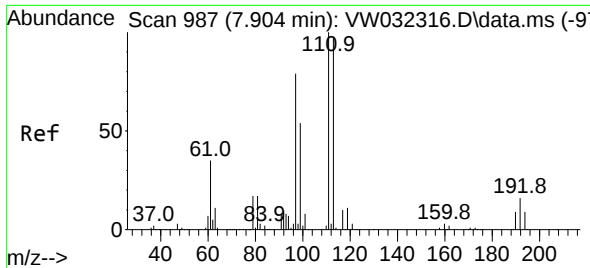
Tgt Ion: 65 Resp: 168574
Ion Ratio Lower Upper
65 100
67 51.1 0.0 99.6



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.849 min Scan# 1142
Delta R.T. -0.006 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

Tgt Ion: 114 Resp: 385425
Ion Ratio Lower Upper
114 100
63 23.2 0.0 40.4
88 17.3 0.0 32.0

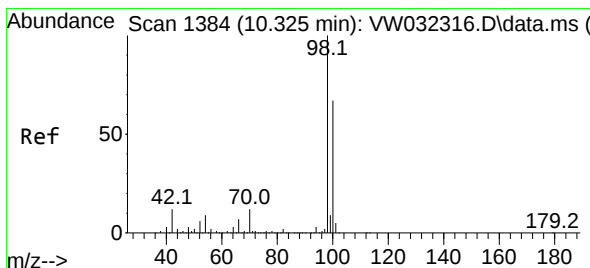
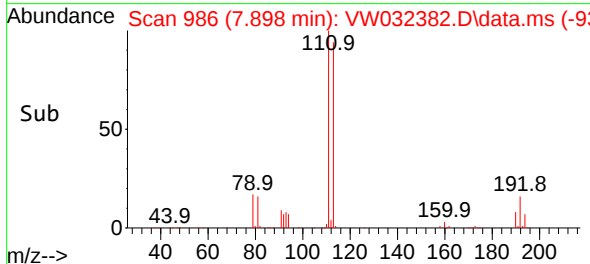
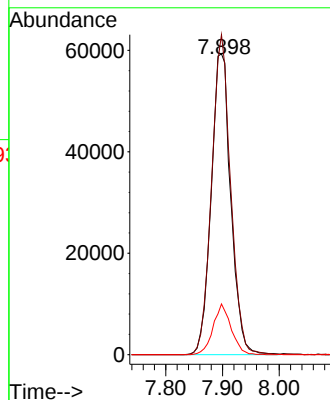
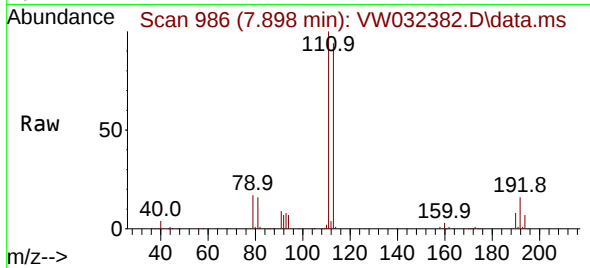




#35
Dibromofluoromethane
Concen: 57.133 ug/l
RT: 7.898 min Scan# 91
Delta R.T. -0.006 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

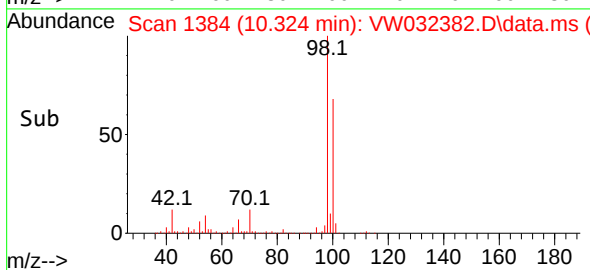
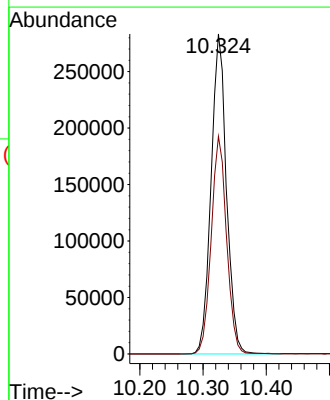
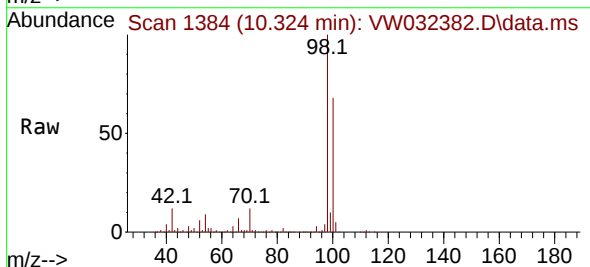
Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

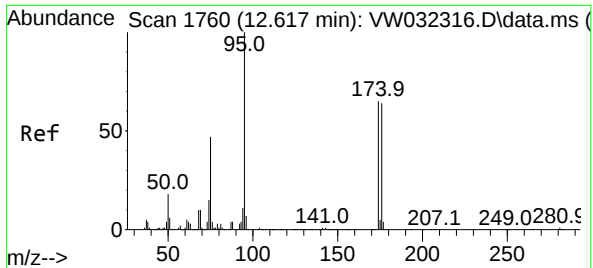
Tgt Ion:113 Resp: 142606
Ion Ratio Lower Upper
113 100
111 102.9 83.9 125.9
192 15.5 14.6 21.8



#50
Toluene-d8
Concen: 52.004 ug/l
RT: 10.324 min Scan# 1384
Delta R.T. -0.000 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

Tgt Ion: 98 Resp: 479079
Ion Ratio Lower Upper
98 100
100 67.9 51.4 77.2

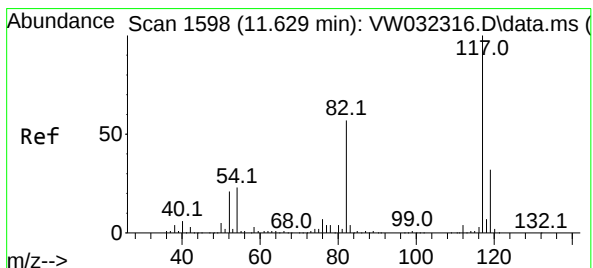
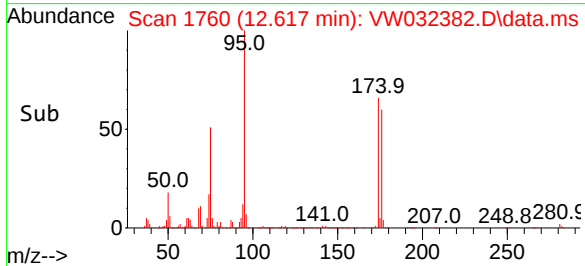
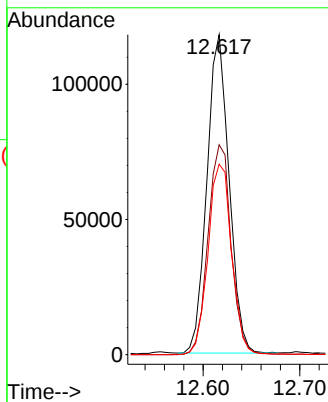
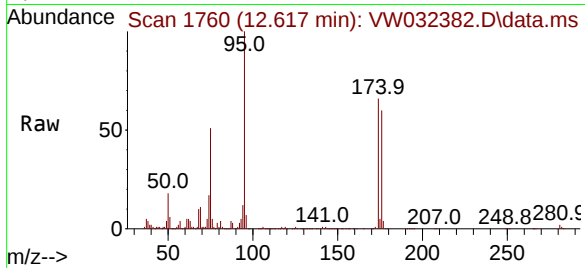




#62
4-Bromofluorobenzene
Concen: 53.830 ug/l
RT: 12.617 min Scan# 1760
Delta R.T. -0.000 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

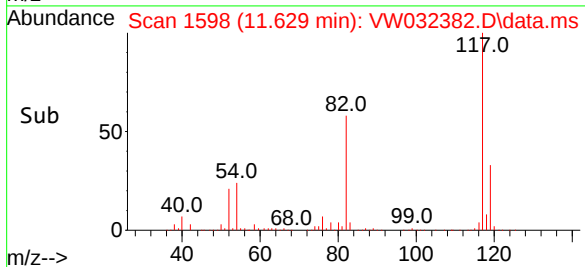
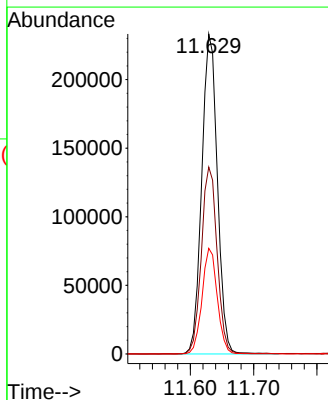
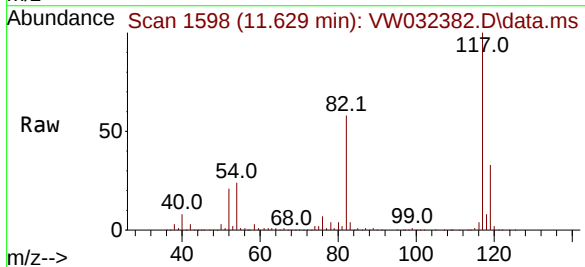
Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

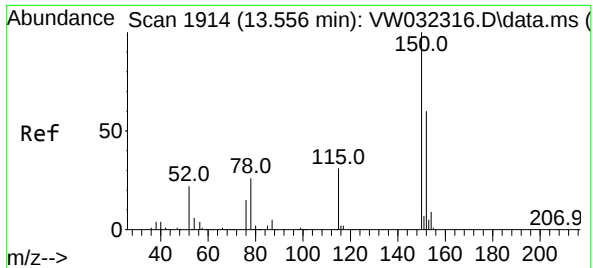
Tgt Ion: 95 Resp: 187434
Ion Ratio Lower Upper
95 100
174 69.0 0.0 145.6
176 63.9 0.0 140.8



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.629 min Scan# 1598
Delta R.T. -0.000 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

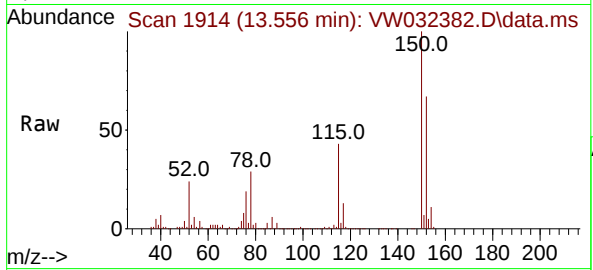
Tgt Ion: 117 Resp: 401644
Ion Ratio Lower Upper
117 100
82 58.3 42.7 64.1
119 33.0 25.2 37.8



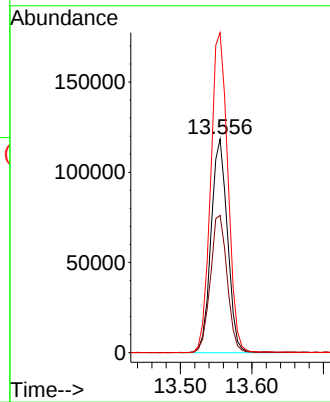
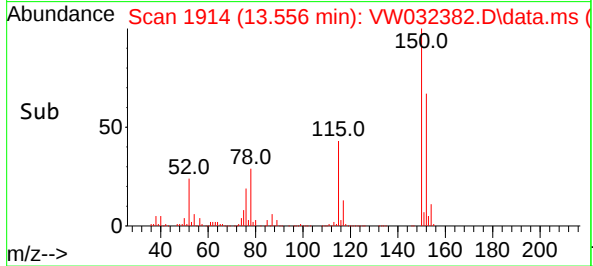


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.556 min Scan# 1914
Delta R.T. -0.000 min
Lab File: VW032382.D
Acq: 20 Oct 2025 12:44

Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015



Tgt Ion:152 Resp: 188999
Ion Ratio Lower Upper
152 100
115 66.0 31.8 95.4
150 156.6 0.0 343.0



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032382.D
Acq On : 20 Oct 2025 12:44
Operator : SY/MD
Sample : Q3363-05
Misc : 5.32g/5mL/MSVOA_W/SOIL/B
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_W\Method\82W100125S.M

Title : SW846 8260

Signal : TIC: VW032382.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.393	75	83	94	rVB	19281	43682	3.22%	0.511%
2	3.070	186	194	204	rBV3	20744	57212	4.21%	0.669%
3	3.429	247	253	263	rVB3	13082	33990	2.50%	0.397%
4	4.155	363	372	380	rBV2	41153	122738	9.04%	1.435%
5	4.953	492	503	513	rBV5	19838	82743	6.10%	0.967%
6	7.191	855	870	881	rBV3	19646	72014	5.31%	0.842%
7	7.898	971	986	991	rBV	194038	475974	35.07%	5.563%
8	7.959	991	996	1008	rVB	258391	560497	41.29%	6.551%
9	8.319	1044	1055	1066	rBV	204063	459350	33.84%	5.369%
10	8.849	1134	1142	1153	rBV	460659	931849	68.65%	10.891%
11	10.324	1376	1384	1401	rBV	775763	1357381	100.00%	15.865%
12	10.934	1475	1484	1490	rBV2	24355	45535	3.35%	0.532%
13	11.032	1494	1500	1509	rBV	24022	62791	4.63%	0.734%
14	11.227	1527	1532	1538	rVB2	24640	42043	3.10%	0.491%
15	11.434	1562	1566	1574	rVB	24715	43203	3.18%	0.505%
16	11.629	1589	1598	1607	rBV	738236	1270727	93.62%	14.852%
17	11.867	1633	1637	1642	rBV	28480	48625	3.58%	0.568%
18	12.129	1673	1680	1687	rBV3	40977	99817	7.35%	1.167%
19	12.245	1692	1699	1704	rVB3	32594	71643	5.28%	0.837%
20	12.330	1704	1713	1714	rBV5	20659	50483	3.72%	0.590%
21	12.361	1715	1718	1725	rVB4	16828	42752	3.15%	0.500%
22	12.617	1752	1760	1766	rBV	549191	920395	67.81%	10.757%
23	12.775	1783	1786	1793	rVB4	25190	45580	3.36%	0.533%
24	12.854	1793	1799	1803	rBV5	18809	39615	2.92%	0.463%
25	12.940	1806	1813	1817	rBV5	29431	63843	4.70%	0.746%
26	13.556	1907	1914	1921	rVB	719794	1190179	87.68%	13.911%
27	13.873	1961	1966	1971	rBV5	33121	58486	4.31%	0.684%
28	14.062	1991	1997	2003	rBV	115630	187379	13.80%	2.190%
29	14.379	2044	2049	2054	rBV5	23162	38032	2.80%	0.445%
30	14.793	2112	2117	2121	rBV6	15764	37365	2.75%	0.437%

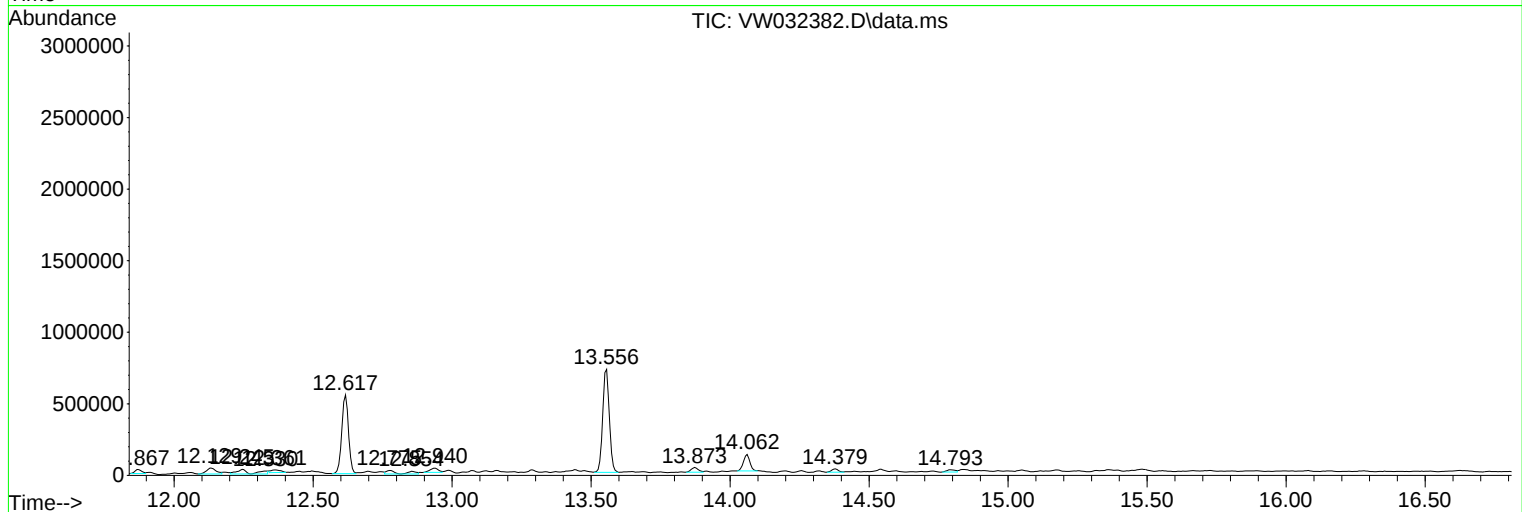
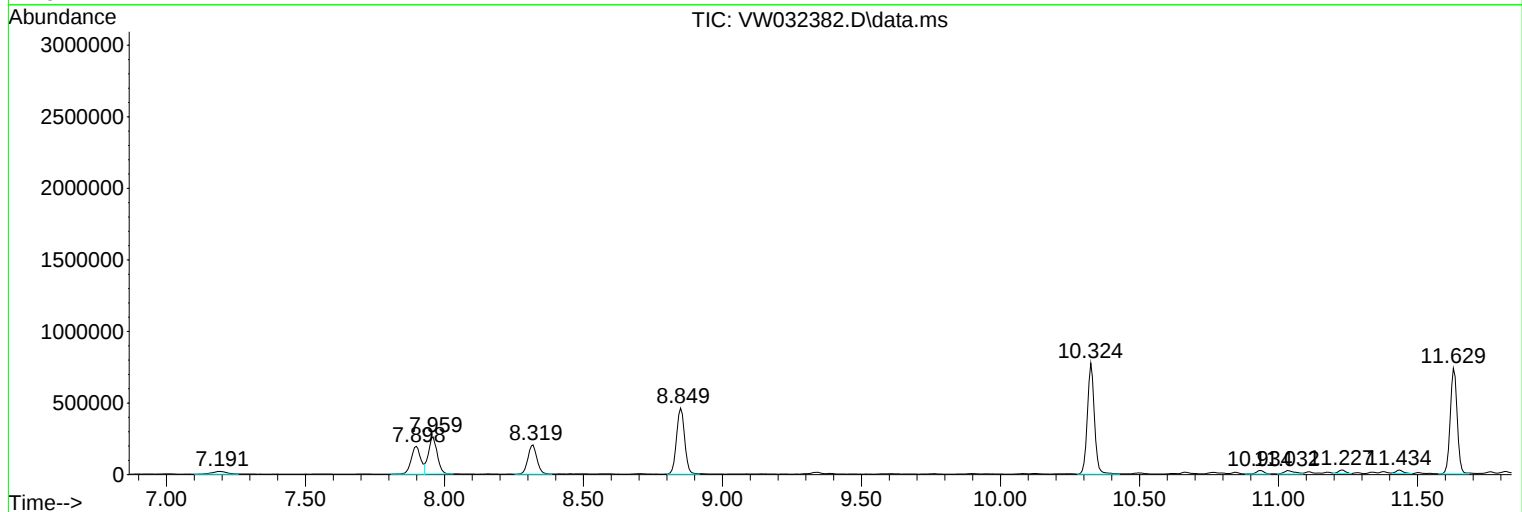
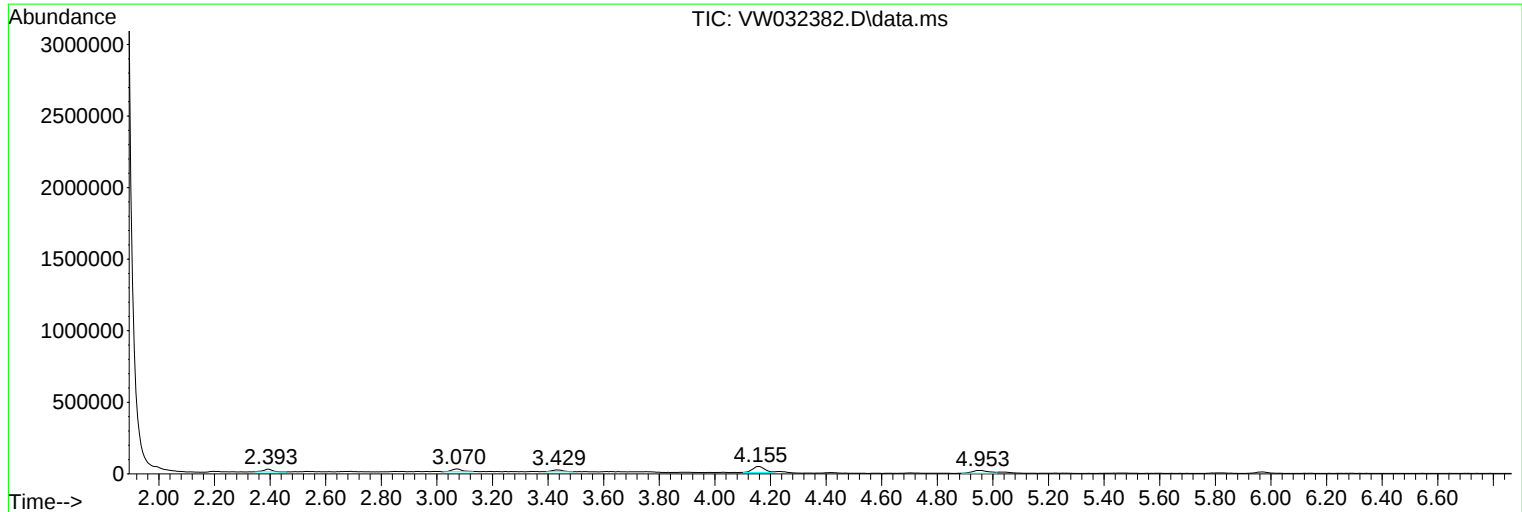
Sum of corrected areas: 8555923

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032382.D
Acq On : 20 Oct 2025 12:44
Operator : SY/MD
Sample : Q3363-05
Misc : 5.32g/5mL/MSVOA_W/SOIL/B
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032382.D
Acq On : 20 Oct 2025 12:44
Operator : SY/MD
Sample : Q3363-05
Misc : 5.32g/5mL/MSVOA_W/SOIL/B
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032382.D
Acq On : 20 Oct 2025 12:44
Operator : SY/MD
Sample : Q3363-05
Misc : 5.32g/5mL/MSVOA_W/SOIL/B
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
COMP01-20251015

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260

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

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



CALIBRATION SUMMARY

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: AECO02
 Lab Code: ACE SDG No.: Q3363
 Instrument ID: MSVOA_W Calibration Date(s): 10/01/2025 10/01/2025
 Heated Purge: (Y/N) Y Calibration Time(s): 13:12 15:20
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:	RRF005 = VW032313.D	RRF010 = VW032314.D	RRF020 = VW032315.D	RRF050 = VW032316.D	RRF100 = VW032317.D	RRF150 = VW032318.D		
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Dichlorodifluoromethane	0.347	0.343	0.345	0.264	0.284	0.299	0.314	11.5
Chloromethane	0.532	0.527	0.516	0.418	0.450	0.463	0.484	9.7
Vinyl Chloride	0.625	0.636	0.606	0.529	0.533	0.538	0.578	8.6
Bromomethane	0.483	0.472	0.435	0.382	0.391	0.386	0.425	10.6
Chloroethane	0.405	0.409	0.394	0.356	0.365	0.361	0.382	6.3
Trichlorofluoromethane	0.426	0.453	0.430	0.418	0.422	0.447	0.433	3.3
1,1,2-Trichlorotrifluoroethane	0.609	0.569	0.524	0.465	0.469	0.478	0.519	11.5
1,1-Dichloroethene	0.588	0.608	0.595	0.521	0.534	0.535	0.564	6.7
Acetone	0.235	0.230	0.209	0.183	0.174	0.181	0.202	13.1
Carbon Disulfide	1.581	1.583	1.581	1.442	1.517	1.521	1.538	3.7
Methyl tert-butyl Ether	1.087	1.161	1.150	1.069	1.094	1.099	1.110	3.3
Methyl Acetate	0.478	0.597	0.612	0.624	0.567	0.592	0.578	9.1
Methylene Chloride	1.280	1.052	0.811	0.631	0.630	0.625	0.838	32.6
trans-1,2-Dichloroethene	0.649	0.640	0.636	0.589	0.613	0.617	0.624	3.6
1,1-Dichloroethane	1.238	1.261	1.244	1.132	1.169	1.172	1.203	4.3
Cyclohexane	1.228	1.108	1.042	0.911	0.931	0.939	1.027	12.1
2-Butanone	0.271	0.293	0.286	0.262	0.262	0.277	0.275	4.6
Carbon Tetrachloride	0.446	0.441	0.427	0.403	0.434	0.429	0.430	3.5
cis-1,2-Dichloroethene	0.768	0.763	0.766	0.716	0.740	0.744	0.749	2.7
Bromochloromethane	0.566	0.588	0.583	0.547	0.553	0.557	0.566	2.9
Chloroform	1.257	1.275	1.271	1.146	1.191	1.178	1.220	4.5
1,1,1-Trichloroethane	0.906	0.910	0.896	0.816	0.835	0.822	0.864	5.1
Methylcyclohexane	0.585	0.542	0.529	0.521	0.568	0.561	0.551	4.5
Benzene	1.518	1.494	1.440	1.345	1.424	1.373	1.432	4.7
1,2-Dichloroethane	0.487	0.497	0.472	0.442	0.461	0.453	0.469	4.4
Trichloroethene	0.354	0.348	0.330	0.312	0.339	0.329	0.335	4.5
1,2-Dichloropropane	0.370	0.371	0.363	0.341	0.355	0.346	0.358	3.4
Bromodichloromethane	0.507	0.517	0.500	0.480	0.513	0.500	0.503	2.6
4-Methyl-2-Pentanone	0.289	0.325	0.318	0.312	0.314	0.317	0.313	3.9
Toluene	0.909	0.905	0.897	0.857	0.908	0.876	0.892	2.4

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



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: AECO02
 Lab Code: ACE SDG No.: Q3363
 Instrument ID: MSVOA_W Calibration Date(s): 10/01/2025 10/01/2025
 Heated Purge: (Y/N) Y Calibration Time(s): 13:12 15:20
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:								
RRF005 = VW032313.D			RRF010 = VW032314.D			RRF020 = VW032315.D		
RRF050 = VW032316.D			RRF100 = VW032317.D			RRF150 = VW032318.D		
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
t-1,3-Dichloropropene	0.451	0.482	0.469	0.478	0.525	0.523	0.488	6.1
cis-1,3-Dichloropropene	0.531	0.571	0.550	0.544	0.591	0.584	0.562	4.2
1,1,2-Trichloroethane	0.304	0.307	0.295	0.280	0.293	0.285	0.294	3.6
2-Hexanone	0.202	0.225	0.226	0.219	0.223	0.228	0.220	4.4
Dibromochloromethane	0.317	0.327	0.334	0.326	0.355	0.343	0.334	4
1,2-Dibromoethane	0.286	0.295	0.288	0.278	0.285	0.287	0.287	2
Tetrachloroethene	0.327	0.325	0.299	0.278	0.287	0.279	0.299	7.3
Chlorobenzene	1.159	1.140	1.109	1.028	1.094	1.070	1.100	4.3
Ethyl Benzene	1.822	1.861	1.843	1.734	1.897	1.845	1.834	3
m/p-Xylenes	0.704	0.720	0.715	0.668	0.730	0.705	0.707	3
o-Xylene	0.632	0.665	0.653	0.637	0.701	0.678	0.661	3.9
Styrene	1.090	1.143	1.199	1.124	1.186	1.186	1.155	3.7
Bromoform	0.179	0.207	0.192	0.189	0.202	0.209	0.196	6
Isopropylbenzene	3.316	3.159	3.364	3.327	3.645	3.714	3.421	6.2
1,1,2,2-Tetrachloroethane	0.867	0.867	0.851	0.808	0.833	0.869	0.849	2.9
1,3-Dichlorobenzene	1.765	1.650	1.625	1.600	1.658	1.722	1.670	3.7
1,4-Dichlorobenzene	1.839	1.673	1.700	1.548	1.661	1.597	1.670	6
1,2-Dichlorobenzene	1.541	1.549	1.557	1.402	1.467	1.540	1.509	4.1
1,2-Dibromo-3-Chloropropane	0.146	0.144	0.150	0.146	0.147	0.160	0.149	3.8
1,2,4-Trichlorobenzene	0.956	0.842	0.865	0.833	0.938	0.997	0.905	7.5
1,2,3-Trichlorobenzene	0.893	0.818	0.839	0.810	0.864	0.895	0.853	4.3
1,2-Dichloroethane-d4	0.738	0.758	0.765	0.695	0.714	0.706	0.729	4
Dibromofluoromethane	0.331	0.335	0.327	0.306	0.331	0.311	0.324	3.8
Toluene-d8	1.182	1.204	1.166	1.193	1.231	1.194	1.195	1.8
4-Bromofluorobenzene	0.472	0.449	0.436	0.448	0.459	0.446	0.452	2.8

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

Method Path : Z:\voasrv\HPCHEM1\MSVOA_W\Method\
 Method File : 82W100125S.M
 Title : SW846 8260
 Last Update : Thu Oct 02 21:24:16 2025
 Response Via : Initial Calibration

Calibration Files

5 =VW032313.D 10 =VW032314.D 20 =VW032315.D 50 =VW032316.D 100 =VW032317.D 150 =VW032318.D

	Compound	5	10	20	50	100	150	Avg	%RSD
1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.347	0.343	0.345	0.264	0.284	0.299	0.314	11.52
3) P	Chloromethane	0.532	0.527	0.516	0.418	0.450	0.463	0.484	9.72
4) C	Vinyl Chloride	0.625	0.636	0.606	0.529	0.533	0.538	0.578	8.63#
5) T	Bromomethane	0.483	0.472	0.435	0.382	0.391	0.386	0.425	10.61
6) T	Chloroethane	0.405	0.409	0.394	0.356	0.365	0.361	0.382	6.27
7) T	Trichlorofluor...	0.426	0.453	0.430	0.418	0.422	0.447	0.433	3.30
8) T	Diethyl Ether	0.389	0.406	0.387	0.344	0.360	0.365	0.375	6.01
9) T	1,1,2-Trichlor...	0.609	0.569	0.524	0.465	0.469	0.478	0.519	11.46
10) T	Methyl Iodide	0.753	0.777	0.790	0.693	0.704	0.726	0.741	5.32
11) T	Tert butyl alc...	0.057	0.062	0.061	0.049	0.049	0.054	0.055	10.36
12) CM	1,1-Dichloroet...	0.588	0.608	0.595	0.521	0.534	0.535	0.564	6.68#
13) T	Acrolein	0.091	0.098	0.102	0.080	0.083	0.084	0.090	9.91
14) T	Allyl chloride	0.983	0.992	0.958	0.911	0.921	0.947	0.952	3.42
15) T	Acrylonitrile	0.189	0.202	0.200	0.187	0.192	0.200	0.195	3.32
16) T	Acetone	0.235	0.230	0.209	0.183	0.174	0.181	0.202	13.10
17) T	Carbon Disulfide	1.581	1.583	1.581	1.442	1.517	1.521	1.538	3.65
18) T	Methyl Acetate	0.478	0.597	0.612	0.624	0.567	0.592	0.578	9.12
19) T	Methyl tert-bu...	1.087	1.161	1.150	1.069	1.094	1.099	1.110	3.33
20) T	Methylene Chlo...	1.280	1.052	0.811	0.631	0.630	0.625	0.838	32.60
21) T	trans-1,2-Dich...	0.649	0.640	0.636	0.589	0.613	0.617	0.624	3.56
22) T	Diisopropyl ether	1.900	2.086	2.085	1.897	1.951	1.958	1.979	4.34
23) T	Vinyl Acetate	1.247	1.325	1.375	1.256	1.349	1.380	1.322	4.40
24) P	1,1-Dichloroet...	1.238	1.261	1.244	1.132	1.169	1.172	1.203	4.34
25) T	2-Butanone	0.271	0.293	0.286	0.262	0.262	0.277	0.275	4.60
26) T	2,2-Dichloropr...	0.659	0.654	0.635	0.576	0.590	0.577	0.615	6.23
27) T	cis-1,2-Dichlo...	0.768	0.763	0.766	0.716	0.740	0.744	0.749	2.65
28) T	Bromochloromet...	0.566	0.588	0.583	0.547	0.553	0.557	0.566	2.93
29) T	Tetrahydrofuran	0.161	0.176	0.180	0.171	0.171	0.179	0.173	4.21
30) C	Chloroform	1.257	1.275	1.271	1.146	1.191	1.178	1.220	4.50#
31) T	Cyclohexane	1.228	1.108	1.042	0.911	0.931	0.939	1.027	12.15
32) T	1,1,1-Trichlor...	0.906	0.910	0.896	0.816	0.835	0.822	0.864	5.15
33) S	1,2-Dichloroet...	0.738	0.758	0.765	0.695	0.714	0.706	0.729	3.95
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...	0.331	0.335	0.327	0.306	0.331	0.311	0.324	3.76
36) T	1,1-Dichloropr...	0.471	0.470	0.455	0.439	0.460	0.446	0.457	2.80
37) T	Ethyl Acetate	0.302	0.315	0.302	0.290	0.305	0.310	0.304	2.83
38) T	Carbon Tetrach...	0.446	0.441	0.427	0.403	0.434	0.429	0.430	3.49
39) T	Methylcyclohexane	0.585	0.542	0.529	0.521	0.568	0.561	0.551	4.46
40) TM	Benzene	1.518	1.494	1.440	1.345	1.424	1.373	1.432	4.66
41) T	Methacrylonitrile	0.143	0.158	0.172	0.164	0.171	0.175	0.164	7.29
42) TM	1,2-Dichloroet...	0.487	0.497	0.472	0.442	0.461	0.453	0.469	4.41
43) T	Isopropyl Acetate	0.498	0.540	0.539	0.520	0.565	0.575	0.540	5.23
44) TM	Trichloroethene	0.354	0.348	0.330	0.312	0.339	0.329	0.335	4.52
45) C	1,2-Dichloropr...	0.370	0.371	0.363	0.341	0.355	0.346	0.358	3.44#
46) T	Dibromomethane	0.224	0.229	0.222	0.211	0.219	0.215	0.220	2.93
47) T	Bromodichlorom...	0.507	0.517	0.500	0.480	0.513	0.500	0.503	2.60
48) T	Methyl methacr...	0.237	0.260	0.257	0.259	0.278	0.284	0.262	6.39
49) T	1,4-Dioxane	0.003	0.003	0.003	0.003	0.003	0.003	0.003	7.47
50) S	Toluene-d8	1.182	1.204	1.166	1.193	1.231	1.194	1.195	1.82
51) T	4-Methyl-2-Pen...	0.289	0.325	0.318	0.312	0.314	0.317	0.313	3.87
52) CM	Toluene	0.909	0.905	0.897	0.857	0.908	0.876	0.892	2.36#
53) T	t-1,3-Dichloro...	0.451	0.482	0.469	0.478	0.525	0.523	0.488	6.14
54) T	cis-1,3-Dichlo...	0.531	0.571	0.550	0.544	0.591	0.584	0.562	4.22
55) T	1,1,2-Trichlor...	0.304	0.307	0.295	0.280	0.293	0.285	0.294	3.58
56) T	Ethyl methacry...	0.354	0.401	0.399	0.408	0.451	0.454	0.411	9.03

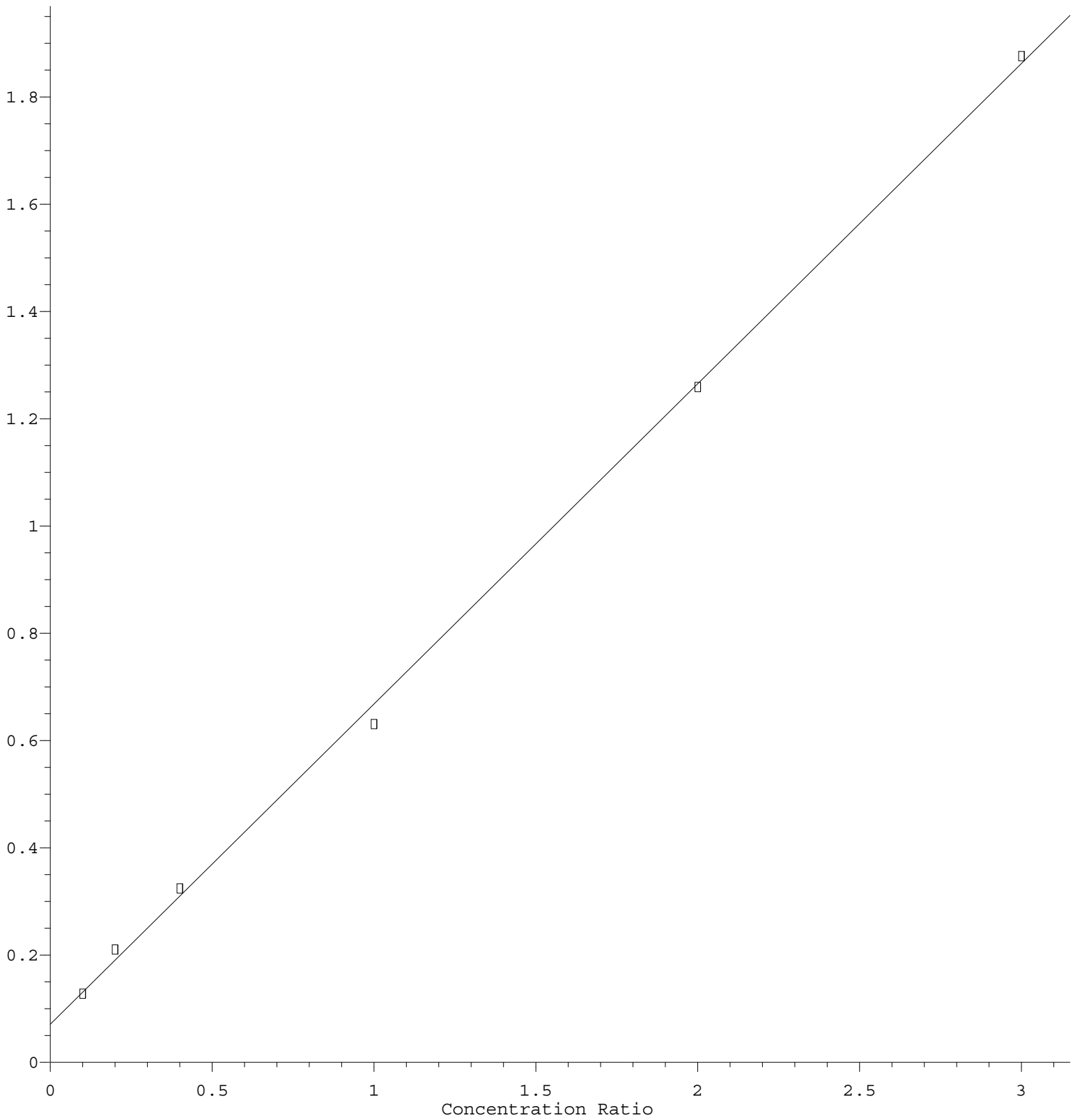
Method Path : Z:\voasrv\HPCHEM1\MSVOA_W\Method\
 Method File : 82W100125S.M

57)	T	1,3-Dichloropr...	0.518	0.545	0.526	0.498	0.519	0.507	0.519	3.10
58)	T	2-Chloroethyl ...	0.177	0.199	0.204	0.241	0.243	0.249	0.219	13.48
59)	T	2-Hexanone	0.202	0.225	0.226	0.219	0.223	0.228	0.220	4.37
60)	T	Dibromochlorom...	0.317	0.327	0.334	0.326	0.355	0.343	0.334	4.05
61)	T	1,2-Dibromoethane	0.286	0.295	0.288	0.278	0.285	0.287	0.287	2.00
62)	S	4-Bromofluorob...	0.472	0.449	0.436	0.448	0.459	0.446	0.452	2.77
63)	I	Chlorobenzene-d5	-----ISTD-----							
64)	T	Tetrachloroethene	0.327	0.325	0.299	0.278	0.287	0.279	0.299	7.28
65)	PM	Chlorobenzene	1.159	1.140	1.109	1.028	1.094	1.070	1.100	4.33
66)	T	1,1,1,2-Tetrac...	0.339	0.351	0.347	0.317	0.351	0.351	0.343	3.98
67)	C	Ethyl Benzene	1.822	1.861	1.843	1.734	1.897	1.845	1.834	2.98#
68)	T	m/p-Xylenes	0.704	0.720	0.715	0.668	0.730	0.705	0.707	3.05
69)	T	o-Xylene	0.632	0.665	0.653	0.637	0.701	0.678	0.661	3.92
70)	T	Styrene	1.090	1.143	1.199	1.124	1.186	1.186	1.155	3.73
71)	P	Bromoform	0.179	0.207	0.192	0.189	0.202	0.209	0.196	5.98
72)	I	1,4-Dichlorobenzen...	-----ISTD-----							
73)	T	Isopropylbenzene	3.316	3.159	3.364	3.327	3.645	3.714	3.421	6.24
74)	T	N-amyl acetate	0.964	1.027	1.080	1.063	1.169	1.245	1.091	9.24
75)	P	1,1,2,2-Tetrac...	0.867	0.867	0.851	0.808	0.833	0.869	0.849	2.88
76)	T	1,2,3-Trichlor...	0.747	0.656	0.640	0.605	0.638	0.662	0.658	7.32
77)	T	Bromobenzene	0.824	0.787	0.807	0.817	0.858	0.853	0.825	3.30
78)	T	n-propylbenzene	4.287	4.025	4.285	4.100	4.439	4.502	4.273	4.34
79)	T	2-Chlorotoluene	2.604	2.575	2.604	2.520	2.625	2.748	2.613	2.90
80)	T	1,3,5-Trimethy...	2.940	2.807	2.855	2.912	3.114	3.120	2.958	4.44
81)	T	trans-1,4-Dich...	0.211	0.235	0.244	0.268	0.293	0.307	0.260	14.03
82)	T	4-Chlorotoluene	2.847	2.743	2.778	2.650	2.810	2.839	2.778	2.65
83)	T	tert-Butylbenzene	2.385	2.347	2.389	2.357	2.551	2.534	2.427	3.74
84)	T	1,2,4-Trimethy...	2.973	2.881	3.046	2.965	3.126	3.055	3.008	2.85
85)	T	sec-Butylbenzene	3.808	3.536	3.562	3.568	3.798	3.981	3.709	4.87
86)	T	p-Isopropyltol...	3.133	2.873	3.086	3.000	3.160	3.213	3.077	4.01
87)	T	1,3-Dichlorobe...	1.765	1.650	1.625	1.600	1.658	1.722	1.670	3.71
88)	T	1,4-Dichlorobe...	1.839	1.673	1.700	1.548	1.661	1.597	1.670	5.97
89)	T	n-Butylbenzene	3.008	2.818	2.942	2.891	3.116	3.253	3.005	5.29
90)	T	Hexachloroethane	0.571	0.535	0.518	0.521	0.575	0.589	0.552	5.52
91)	T	1,2-Dichlorobe...	1.541	1.549	1.557	1.402	1.467	1.540	1.509	4.11
92)	T	1,2-Dibromo-3-...	0.146	0.144	0.150	0.146	0.147	0.160	0.149	3.78
93)	T	1,2,4-Trichlor...	0.956	0.842	0.865	0.833	0.938	0.997	0.905	7.47
94)	T	Hexachlorobuta...	0.478	0.426	0.379	0.362	0.413	0.425	0.414	9.83
95)	T	Naphthalene	1.948	1.919	2.162	2.195	2.280	2.538	2.174	10.51
96)	T	1,2,3-Trichlor...	0.893	0.818	0.839	0.810	0.864	0.895	0.853	4.34

(#) = Out of Range

Methylene Chloride

Response Ratio



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032313.D
 Acq On : 01 Oct 2025 13:12
 Operator : SY/MD
 Sample : VSTDICC005
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDICC005

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:12:34 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:10:58 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.965	168	284753	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.855	114	526707	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	478552	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	234250	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.319	65	21010	5.059	ug/l	0.00
Spiked Amount 50.000	Range 63 - 155		Recovery =	10.120%#		
35) Dibromofluoromethane	7.898	113	17458	5.118	ug/l	0.00
Spiked Amount 50.000	Range 70 - 134		Recovery =	10.240%#		
50) Toluene-d8	10.325	98	62281	4.947	ug/l	0.00
Spiked Amount 50.000	Range 74 - 123		Recovery =	9.900%#		
62) 4-Bromofluorobenzene	12.617	95	24882	5.229	ug/l	0.00
Spiked Amount 50.000	Range 17 - 146		Recovery =	10.460%#		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.046	85	9893	5.537	ug/l	96
3) Chloromethane	2.253	50	15140	5.491	ug/l	96
4) Vinyl Chloride	2.399	62	17809	5.410	ug/l	98
5) Bromomethane	2.832	94	13745	5.682	ug/l	87
6) Chloroethane	2.966	64	11537	5.309	ug/l	97
7) Trichlorofluoromethane	3.302	101	12133	4.923	ug/l	100
8) Diethyl Ether	3.722	74	11070	5.183	ug/l	87
9) 1,1,2-Trichlorotrifluo...	4.112	101	17336	5.865	ug/l #	87
10) Methyl Iodide	4.320	142	21442	5.084	ug/l	98
11) Tert butyl alcohol	5.210	59	8165	25.972	ug/l	97
12) 1,1-Dichloroethene	4.082	96	16745	5.218	ug/l	90
13) Acrolein	3.936	56	12931	25.344	ug/l	97
14) Allyl chloride	4.704	41	27986	5.163	ug/l	90
15) Acrylonitrile	5.411	53	26916	24.226	ug/l	98
16) Acetone	4.167	43	33407	29.049	ug/l	100
17) Carbon Disulfide	4.423	76	45031	5.143	ug/l	100
18) Methyl Acetate	4.710	43	13618	4.134	ug/l	100
19) Methyl tert-butyl Ether	5.466	73	30951	4.897	ug/l	95
20) Methylene Chloride	4.954	84	36441	4.732	ug/l	94
21) trans-1,2-Dichloroethene	5.460	96	18485	5.203	ug/l	98
22) Diisopropyl ether	6.338	45	54095	4.799	ug/l #	87
23) Vinyl Acetate	6.289	43	177543	23.579	ug/l	100
24) 1,1-Dichloroethane	6.252	63	35264	5.149	ug/l	96
25) 2-Butanone	7.203	43	38549	24.612	ug/l	95
26) 2,2-Dichloropropane	7.191	77	18751	5.352	ug/l	97
27) cis-1,2-Dichloroethene	7.197	96	21855	5.120	ug/l	93
28) Bromochloromethane	7.533	49	16126	5.005	ug/l	87
29) Tetrahydrofuran	7.557	42	22855	23.204	ug/l	92
30) Chloroform	7.691	83	35798	5.154	ug/l	93
31) Cyclohexane	7.971	56	34981	5.983	ug/l #	87
32) 1,1,1-Trichloroethane	7.886	97	25812	5.244	ug/l	98
36) 1,1-Dichloropropene	8.093	75	24817	5.155	ug/l	98
37) Ethyl Acetate	7.276	43	15932	4.972	ug/l	96
38) Carbon Tetrachloride	8.087	117	23500	5.188	ug/l	99
39) Methylcyclohexane	9.343	83	30816	5.307	ug/l	95
40) Benzene	8.337	78	79933	5.297	ug/l	94

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032313.D
 Acq On : 01 Oct 2025 13:12
 Operator : SY/MD
 Sample : VSTDICC005
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025

Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:12:34 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.502	41	7536	4.364	ug/l	99
42) 1,2-Dichloroethane	8.417	62	25632	5.192	ug/l	97
43) Isopropyl Acetate	8.441	43	26247	4.618	ug/l	97
44) Trichloroethene	9.099	130	18643	5.277	ug/l	98
45) 1,2-Dichloropropane	9.380	63	19476	5.171	ug/l	97
46) Dibromomethane	9.471	93	11793	5.092	ug/l	96
47) Bromodichloromethane	9.654	83	26693	5.039	ug/l	92
48) Methyl methacrylate	9.441	41	12470	4.512	ug/l #	90
49) 1,4-Dioxane	9.465	88	2732	86.306	ug/l #	86
51) 4-Methyl-2-Pentanone	10.215	43	76240	23.157	ug/l	97
52) Toluene	10.392	92	47870	5.094	ug/l	100
53) t-1,3-Dichloropropene	10.611	75	23740	4.619	ug/l	95
54) cis-1,3-Dichloropropene	10.075	75	27985	4.727	ug/l	96
55) 1,1,2-Trichloroethane	10.788	97	16014	5.174	ug/l	93
56) Ethyl methacrylate	10.648	69	18666	4.308	ug/l	97
57) 1,3-Dichloropropane	10.934	76	27288	4.991	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.928	63	46589	20.206	ug/l	95
59) 2-Hexanone	10.971	43	53126	22.879	ug/l	96
60) Dibromochloromethane	11.129	129	16674	4.744	ug/l	95
61) 1,2-Dibromoethane	11.239	107	15062	4.990	ug/l	99
64) Tetrachloroethene	10.867	164	15638	5.461	ug/l	93
65) Chlorobenzene	11.660	112	55479	5.269	ug/l	96
66) 1,1,1,2-Tetrachloroethane	11.733	131	16206	4.942	ug/l	98
67) Ethyl Benzene	11.733	91	87214	4.969	ug/l	99
68) m/p-Xylenes	11.837	106	67346	9.951	ug/l	100
69) o-Xylene	12.166	106	30267	4.782	ug/l	98
70) Styrene	12.178	104	52147	4.719	ug/l	98
71) Bromoform	12.349	173	8566	4.557	ug/l #	99
73) Isopropylbenzene	12.465	105	77676	4.847	ug/l	100
74) N-amyl acetate	12.270	43	22577	4.416	ug/l	97
75) 1,1,2,2-Tetrachloroethane	12.715	83	20303	5.102	ug/l	98
76) 1,2,3-Trichloropropane	12.763	75	17510m	5.665	ug/l	
77) Bromobenzene	12.745	156	19313	4.999	ug/l	85
78) n-propylbenzene	12.800	91	100413	5.016	ug/l	96
79) 2-Chlorotoluene	12.891	91	61002	4.984	ug/l	97
80) 1,3,5-Trimethylbenzene	12.940	105	68864	4.969	ug/l	95
81) trans-1,4-Dichloro-2-b...	12.507	75	4939	4.059	ug/l	87
82) 4-Chlorotoluene	12.989	91	66681	5.124	ug/l	99
83) tert-Butylbenzene	13.202	119	55879	4.914	ug/l	96
84) 1,2,4-Trimethylbenzene	13.245	105	69654	4.943	ug/l	100
85) sec-Butylbenzene	13.379	105	89212	5.134	ug/l	96
86) p-Isopropyltoluene	13.495	119	73385	5.090	ug/l	99
87) 1,3-Dichlorobenzene	13.495	146	41335	5.284	ug/l	94
88) 1,4-Dichlorobenzene	13.574	146	43076	5.507	ug/l	95
89) n-Butylbenzene	13.818	91	70466	5.006	ug/l	98
90) Hexachloroethane	14.086	117	13382	5.178	ug/l	96
91) 1,2-Dichlorobenzene	13.861	146	36095	5.104	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.483	75	3424	4.914	ug/l	84
93) 1,2,4-Trichlorobenzene	15.129	180	22385	5.279	ug/l	99
94) Hexachlorobutadiene	15.232	225	11196	5.775	ug/l	96
95) Naphthalene	15.360	128	45626	4.481	ug/l	98
96) 1,2,3-Trichlorobenzene	15.543	180	20926	5.236	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032313.D
Acq On : 01 Oct 2025 13:12
Operator : SY/MD
Sample : VSTDICC005
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:12:34 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:10:58 2025
Response via : Initial Calibration

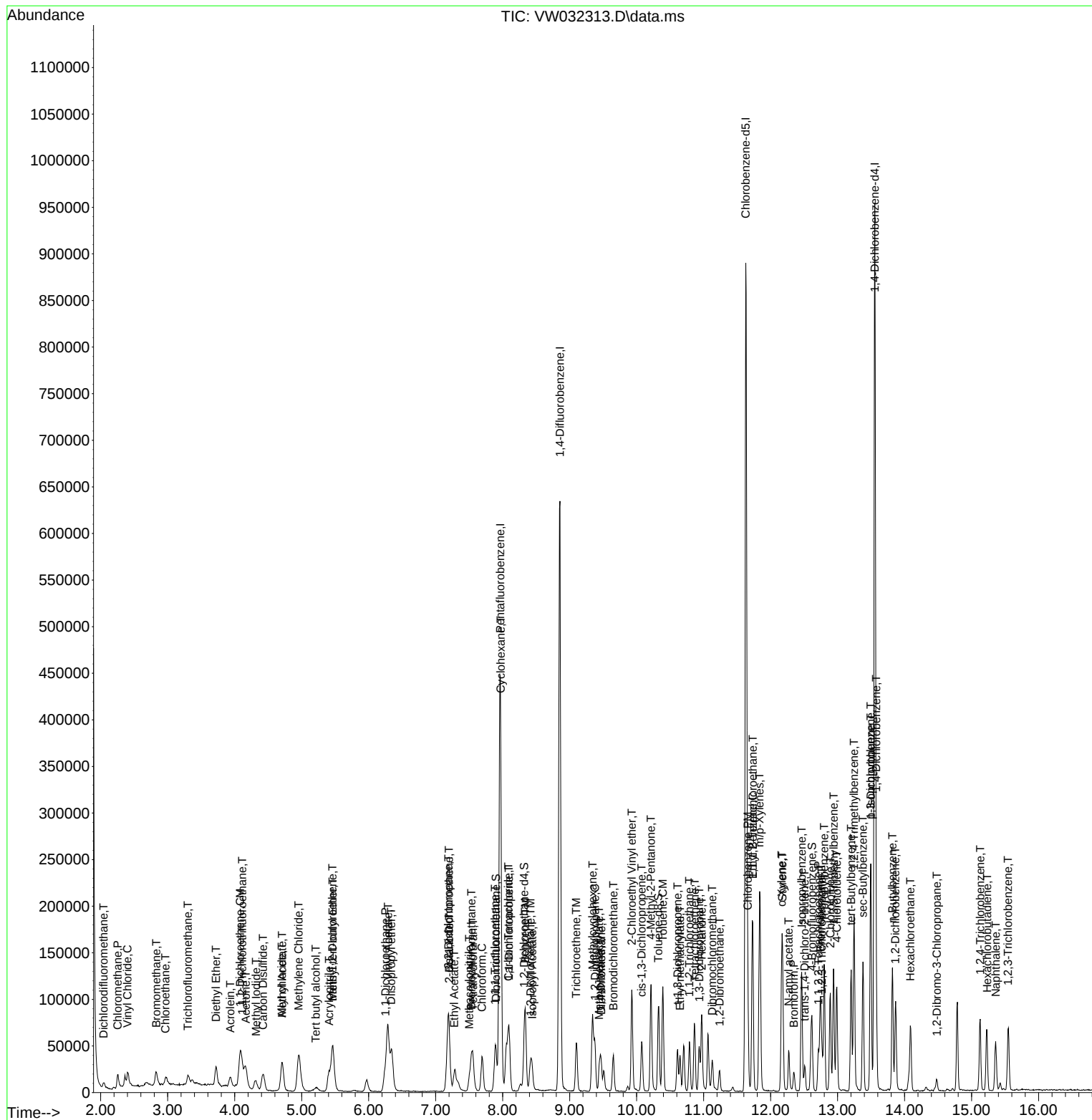
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

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

Instrument :
MSVOA_W
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032314.D
 Acq On : 01 Oct 2025 13:34
 Operator : SY/MD
 Sample : VSTDICC010
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDICC010

Quant Time: Oct 02 21:13:27 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:10:58 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.959	168	280850	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.855	114	525265	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	471729	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	242027	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.319	65	42595	10.398	ug/l	0.00
Spiked Amount 50.000	Range 63 - 155		Recovery =	20.800%#		
35) Dibromofluoromethane	7.898	113	35230	10.357	ug/l	0.00
Spiked Amount 50.000	Range 70 - 134		Recovery =	20.720%#		
50) Toluene-d8	10.325	98	126526	10.078	ug/l	0.00
Spiked Amount 50.000	Range 74 - 123		Recovery =	20.160%#		
62) 4-Bromofluorobenzene	12.617	95	47150	9.936	ug/l	0.00
Spiked Amount 50.000	Range 17 - 146		Recovery =	19.880%		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.039	85	19283	10.941	ug/l	98
3) Chloromethane	2.259	50	29583	10.879	ug/l	97
4) Vinyl Chloride	2.405	62	35737	11.008	ug/l	98
5) Bromomethane	2.826	94	26494	11.105	ug/l	90
6) Chloroethane	2.972	64	22994	10.728	ug/l	98
7) Trichlorofluoromethane	3.308	101	25472	10.479	ug/l	99
8) Diethyl Ether	3.722	74	22779	10.814	ug/l	86
9) 1,1,2-Trichlorotrifluo...	4.100	101	31968	10.965	ug/l	94
10) Methyl Iodide	4.307	142	43646	10.492	ug/l	98
11) Tert butyl alcohol	5.216	59	17352	55.962	ug/l #	80
12) 1,1-Dichloroethene	4.082	96	34142	10.786	ug/l	97
13) Acrolein	3.929	56	27390	54.429	ug/l	97
14) Allyl chloride	4.710	41	55724	10.423	ug/l	89
15) Acrylonitrile	5.405	53	56775	51.811	ug/l	99
16) Acetone	4.161	43	64630	56.980	ug/l	98
17) Carbon Disulfide	4.423	76	88918	10.296	ug/l	98
18) Methyl Acetate	4.716	43	33520	10.316	ug/l	98
19) Methyl tert-butyl Ether	5.466	73	65224	10.462	ug/l	97
20) Methylene Chloride	4.960	84	59087	11.634	ug/l	94
21) trans-1,2-Dichloroethene	5.460	96	35963	10.262	ug/l	95
22) Diisopropyl ether	6.344	45	117148	10.536	ug/l #	94
23) Vinyl Acetate	6.283	43	372258	50.126	ug/l	98
24) 1,1-Dichloroethane	6.246	63	70852	10.489	ug/l	98
25) 2-Butanone	7.197	43	82281	53.263	ug/l	97
26) 2,2-Dichloropropane	7.191	77	36712	10.625	ug/l	99
27) cis-1,2-Dichloroethene	7.191	96	42849	10.178	ug/l	93
28) Bromochloromethane	7.532	49	33043	10.397	ug/l	87
29) Tetrahydrofuran	7.557	42	49488	50.941	ug/l	96
30) Chloroform	7.691	83	71607	10.453	ug/l	98
31) Cyclohexane	7.971	56	62233	10.792	ug/l #	93
32) 1,1,1-Trichloroethane	7.886	97	51138	10.534	ug/l	97
36) 1,1-Dichloropropene	8.099	75	49414	10.293	ug/l	98
37) Ethyl Acetate	7.276	43	33130	10.368	ug/l	99
38) Carbon Tetrachloride	8.087	117	46310	10.251	ug/l	94
39) Methylcyclohexane	9.343	83	56991	9.842	ug/l	92
40) Benzene	8.337	78	156957	10.431	ug/l	94

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032314.D
 Acq On : 01 Oct 2025 13:34
 Operator : SY/MD
 Sample : VSTDICC010
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

VSTDICC010

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025

Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:13:27 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.502	41	16618	9.650	ug/l	98
42) 1,2-Dichloroethane	8.416	62	52201	10.602	ug/l	99
43) Isopropyl Acetate	8.441	43	56692	10.001	ug/l	98
44) Trichloroethene	9.105	130	36599	10.387	ug/l	87
45) 1,2-Dichloropropane	9.374	63	38953	10.371	ug/l	100
46) Dibromomethane	9.465	93	24036	10.407	ug/l	94
47) Bromodichloromethane	9.654	83	54338	10.286	ug/l	99
48) Methyl methacrylate	9.447	41	27343	9.921	ug/l	94
49) 1,4-Dioxane	9.465	88	6100	193.232	ug/l #	64
51) 4-Methyl-2-Pentanone	10.215	43	170455	51.916	ug/l	98
52) Toluene	10.392	92	95076	10.146	ug/l	99
53) t-1,3-Dichloropropene	10.611	75	50624	9.878	ug/l	99
54) cis-1,3-Dichloropropene	10.081	75	59970	10.158	ug/l	97
55) 1,1,2-Trichloroethane	10.794	97	32248	10.447	ug/l	95
56) Ethyl methacrylate	10.648	69	42126	9.750	ug/l	93
57) 1,3-Dichloropropane	10.934	76	57249	10.501	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.928	63	104587	45.484	ug/l	95
59) 2-Hexanone	10.971	43	118088	50.996	ug/l	98
60) Dibromochloromethane	11.129	129	34371	9.806	ug/l	97
61) 1,2-Dibromoethane	11.233	107	31025	10.308	ug/l	97
64) Tetrachloroethene	10.867	164	30629	10.851	ug/l	95
65) Chlorobenzene	11.660	112	107554	10.362	ug/l	95
66) 1,1,1,2-Tetrachloroethane	11.733	131	33104	10.240	ug/l	97
67) Ethyl Benzene	11.733	91	175582	10.149	ug/l	95
68) m/p-Xylenes	11.837	106	135895	20.370	ug/l	98
69) o-Xylene	12.166	106	62715	10.052	ug/l	98
70) Styrene	12.178	104	107824	9.899	ug/l	99
71) Bromoform	12.349	173	19572	10.562	ug/l #	92
73) Isopropylbenzene	12.464	105	152894	9.234	ug/l	99
74) N-amyl acetate	12.269	43	49718	9.412	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.714	83	41991	10.213	ug/l	100
76) 1,2,3-Trichloropropane	12.763	75	31741m	9.939	ug/l	
77) Bromobenzene	12.745	156	38105	9.547	ug/l	84
78) n-propylbenzene	12.800	91	194851	9.421	ug/l	97
79) 2-Chlorotoluene	12.891	91	124638	9.855	ug/l	98
80) 1,3,5-Trimethylbenzene	12.940	105	135870	9.490	ug/l	97
81) trans-1,4-Dichloro-2-b...	12.513	75	11399	9.067	ug/l	91
82) 4-Chlorotoluene	12.989	91	132770	9.874	ug/l	99
83) tert-Butylbenzene	13.202	119	113595	9.669	ug/l	99
84) 1,2,4-Trimethylbenzene	13.245	105	139474	9.580	ug/l	98
85) sec-Butylbenzene	13.379	105	171153	9.533	ug/l	99
86) p-Isopropyltoluene	13.495	119	139064	9.335	ug/l	99
87) 1,3-Dichlorobenzene	13.495	146	79860	9.881	ug/l	94
88) 1,4-Dichlorobenzene	13.574	146	80973	10.019	ug/l	98
89) n-Butylbenzene	13.818	91	136393	9.378	ug/l	99
90) Hexachloroethane	14.086	117	25898	9.699	ug/l	98
91) 1,2-Dichlorobenzene	13.867	146	74980	10.262	ug/l	94
92) 1,2-Dibromo-3-Chloropr...	14.482	75	6955	9.662	ug/l	87
93) 1,2,4-Trichlorobenzene	15.129	180	40772	9.306	ug/l	95
94) Hexachlorobutadiene	15.226	225	20605	10.287	ug/l	96
95) Naphthalene	15.360	128	92896	8.829	ug/l	99
96) 1,2,3-Trichlorobenzene	15.555	180	39577	9.584	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032314.D
Acq On : 01 Oct 2025 13:34
Operator : SY/MD
Sample : VSTDICC010
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:13:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:10:58 2025
Response via : Initial Calibration

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

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

Instrument :
MSVOA_W
ClientSampleId :
VSTDICC010

Manual Integrations

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032315.D
 Acq On : 01 Oct 2025 14:15
 Operator : SY/MD
 Sample : VSTDICC020
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:14:22 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:10:58 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.959	168	281404	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.849	114	536489	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	481502	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.555	152	241841	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.312	65	86104	20.978	ug/l	0.00
Spiked Amount	50.000	Range	63 - 155	Recovery	=	41.960%#
35) Dibromofluoromethane	7.898	113	70270	20.225	ug/l	0.00
Spiked Amount	50.000	Range	70 - 134	Recovery	=	40.460%#
50) Toluene-d8	10.324	98	250144	19.507	ug/l	0.00
Spiked Amount	50.000	Range	74 - 123	Recovery	=	39.020%#
62) 4-Bromofluorobenzene	12.617	95	93567	19.305	ug/l	0.00
Spiked Amount	50.000	Range	17 - 146	Recovery	=	38.620%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.045	85	38800	21.972	ug/l	95
3) Chloromethane	2.253	50	58031	21.298	ug/l	99
4) Vinyl Chloride	2.405	62	68214	20.970	ug/l	97
5) Bromomethane	2.813	94	48996	20.496	ug/l	99
6) Chloroethane	2.960	64	44339	20.645	ug/l	99
7) Trichlorofluoromethane	3.295	101	48412	19.877	ug/l	93
8) Diethyl Ether	3.716	74	43506	20.614	ug/l	89
9) 1,1,2-Trichlorotrifluo...	4.094	101	59004	20.198	ug/l	95
10) Methyl Iodide	4.301	142	88957	21.342	ug/l	97
11) Tert butyl alcohol	5.215	59	34233	110.188	ug/l	96
12) 1,1-Dichloroethene	4.075	96	67001	21.126	ug/l	97
13) Acrolein	3.923	56	57603	114.243	ug/l	96
14) Allyl chloride	4.697	41	107824	20.129	ug/l	91
15) Acrylonitrile	5.392	53	112746	102.687	ug/l	99
16) Acetone	4.155	43	117625	103.498	ug/l	94
17) Carbon Disulfide	4.417	76	177979	20.568	ug/l	99
18) Methyl Acetate	4.703	43	68880	21.157	ug/l	95
19) Methyl tert-butyl Ether	5.459	73	129438	20.722	ug/l	92
20) Methylene Chloride	4.947	84	91257	21.174	ug/l	90
21) trans-1,2-Dichloroethene	5.453	96	71565	20.381	ug/l	98
22) Diisopropyl ether	6.337	45	234704	21.068	ug/l	94
23) Vinyl Acetate	6.276	43	773956	104.011	ug/l	98
24) 1,1-Dichloroethane	6.234	63	140018	20.687	ug/l	98
25) 2-Butanone	7.191	43	160713	103.830	ug/l	98
26) 2,2-Dichloropropane	7.179	77	71502	20.653	ug/l	98
27) cis-1,2-Dichloroethene	7.185	96	86196	20.434	ug/l	93
28) Bromochloromethane	7.526	49	65600	20.601	ug/l	85
29) Tetrahydrofuran	7.550	42	101422	104.194	ug/l	94
30) Chloroform	7.691	83	143028	20.837	ug/l	99
31) Cyclohexane	7.965	56	117320	20.304	ug/l	95
32) 1,1,1-Trichloroethane	7.886	97	100837	20.731	ug/l	99
36) 1,1-Dichloropropene	8.093	75	97586	19.902	ug/l	97
37) Ethyl Acetate	7.276	43	64814	19.859	ug/l	99
38) Carbon Tetrachloride	8.081	117	91643	19.861	ug/l	100
39) Methylcyclohexane	9.343	83	113500	19.190	ug/l	96
40) Benzene	8.331	78	309105	20.112	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032315.D
 Acq On : 01 Oct 2025 14:15
 Operator : SY/MD
 Sample : VSTDICC020
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

VSTDICC020

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025

Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:14:22 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.496	41	37010	21.042	ug/l	90
42) 1,2-Dichloroethane	8.410	62	101383	20.160	ug/l	100
43) Isopropyl Acetate	8.434	43	115725	19.988	ug/l	99
44) Trichloroethene	9.099	130	70719	19.651	ug/l	98
45) 1,2-Dichloropropane	9.373	63	77815	20.284	ug/l	98
46) Dibromomethane	9.459	93	47632	20.192	ug/l	95
47) Bromodichloromethane	9.654	83	107295	19.886	ug/l	97
48) Methyl methacrylate	9.440	41	55063	19.561	ug/l	95
49) 1,4-Dioxane	9.465	88	13352	414.108	ug/l #	85
51) 4-Methyl-2-Pentanone	10.208	43	341386	101.802	ug/l	98
52) Toluene	10.391	92	192396	20.102	ug/l	98
53) t-1,3-Dichloropropene	10.605	75	100559	19.211	ug/l	97
54) cis-1,3-Dichloropropene	10.074	75	117968	19.565	ug/l	96
55) 1,1,2-Trichloroethane	10.788	97	63272	20.068	ug/l	98
56) Ethyl methacrylate	10.647	69	85643	19.407	ug/l	94
57) 1,3-Dichloropropane	10.934	76	112943	20.283	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.928	63	219091	93.287	ug/l	96
59) 2-Hexanone	10.971	43	242814	102.664	ug/l	97
60) Dibromochloromethane	11.129	129	71782	20.051	ug/l	100
61) 1,2-Dibromoethane	11.233	107	61899	20.135	ug/l	98
64) Tetrachloroethene	10.867	164	57503	19.958	ug/l	97
65) Chlorobenzene	11.653	112	213655	20.167	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.733	131	66918	20.280	ug/l	98
67) Ethyl Benzene	11.727	91	355003	20.103	ug/l	97
68) m/p-Xylenes	11.836	106	275521	40.461	ug/l	96
69) o-Xylene	12.165	106	125849	19.762	ug/l	95
70) Styrene	12.178	104	230999	20.776	ug/l	97
71) Bromoform	12.348	173	37059	19.593	ug/l #	97
73) Isopropylbenzene	12.464	105	325413	19.668	ug/l	99
74) N-amyl acetate	12.269	43	104472	19.793	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.708	83	82334	20.041	ug/l	100
76) 1,2,3-Trichloropropane	12.763	75	61898m	19.396	ug/l	
77) Bromobenzene	12.745	156	78072	19.575	ug/l	88
78) n-propylbenzene	12.799	91	414530	20.057	ug/l	97
79) 2-Chlorotoluene	12.891	91	251889	19.933	ug/l	97
80) 1,3,5-Trimethylbenzene	12.940	105	276218	19.307	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.513	75	23628	18.808	ug/l	98
82) 4-Chlorotoluene	12.982	91	268736	20.002	ug/l	99
83) tert-Butylbenzene	13.202	119	231081	19.685	ug/l	98
84) 1,2,4-Trimethylbenzene	13.245	105	294630	20.253	ug/l	97
85) sec-Butylbenzene	13.379	105	344593	19.209	ug/l	99
86) p-Isopropyltoluene	13.494	119	298543	20.057	ug/l	99
87) 1,3-Dichlorobenzene	13.501	146	157169	19.461	ug/l	94
88) 1,4-Dichlorobenzene	13.574	146	164453	20.364	ug/l	96
89) n-Butylbenzene	13.818	91	284638	19.585	ug/l	98
90) Hexachloroethane	14.086	117	50102	18.779	ug/l	94
91) 1,2-Dichlorobenzene	13.866	146	150657	20.636	ug/l	91
92) 1,2-Dibromo-3-Chloropr...	14.482	75	14474	20.123	ug/l	84
93) 1,2,4-Trichlorobenzene	15.122	180	83681	19.115	ug/l	99
94) Hexachlorobutadiene	15.226	225	36708	18.340	ug/l	90
95) Naphthalene	15.360	128	209101	19.889	ug/l	99
96) 1,2,3-Trichlorobenzene	15.549	180	81141	19.664	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032315.D
Acq On : 01 Oct 2025 14:15
Operator : SY/MD
Sample : VSTDICC020
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:14:22 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:10:58 2025
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032315.D
 Acq On : 01 Oct 2025 14:15
 Operator : SY/MD
 Sample : VSTDIC020
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

MSVOA_W

Client Sample Id :

VSTDIC020

Manual Integrations

APPROVED

Reviewed By : Mahesh Dadoda 10/03/2025

Supervised By : Semsettin Yesilyurt 10/03/2025

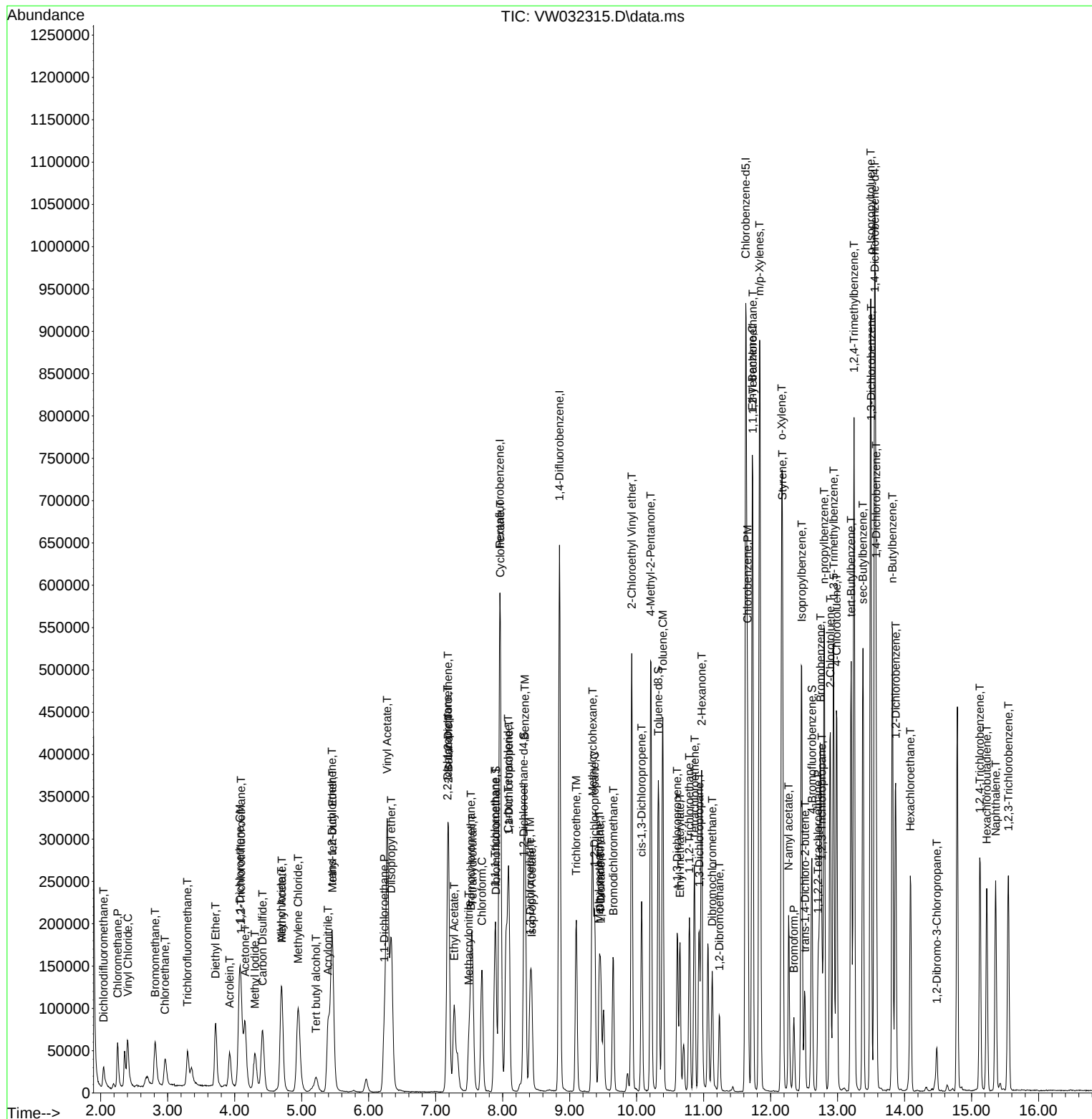
Quant Time: Oct 02 21:14:22 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032316.D
 Acq On : 01 Oct 2025 14:37
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:15:16 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:10:58 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.959	168	289091	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.855	114	530255	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	489049	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	234466	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.319	65	200915	47.649	ug/l	0.00
Spiked Amount	50.000	Range	63 - 155	Recovery	=	95.300%
35) Dibromofluoromethane	7.904	113	162134	47.215	ug/l	0.00
Spiked Amount	50.000	Range	70 - 134	Recovery	=	94.420%
50) Toluene-d8	10.325	98	632778	49.927	ug/l	0.00
Spiked Amount	50.000	Range	74 - 123	Recovery	=	99.860%
62) 4-Bromofluorobenzene	12.617	95	237645	49.609	ug/l	0.00
Spiked Amount	50.000	Range	17 - 146	Recovery	=	99.220%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.046	85	76397	42.113	ug/l	97
3) Chloromethane	2.253	50	120776	43.147	ug/l	97
4) Vinyl Chloride	2.405	62	153004	45.785	ug/l	98
5) Bromomethane	2.826	94	110413	44.960	ug/l	96
6) Chloroethane	2.966	64	102915	46.646	ug/l	95
7) Trichlorofluoromethane	3.308	101	120856	48.301	ug/l	96
8) Diethyl Ether	3.722	74	99427	45.858	ug/l	89
9) 1,1,2-Trichlorotrifluo...	4.106	101	134421	44.790	ug/l	92
10) Methyl Iodide	4.320	142	200360	46.790	ug/l	98
11) Tert butyl alcohol	5.222	59	70796	221.816	ug/l	97
12) 1,1-Dichloroethene	4.082	96	150540	46.204	ug/l	94
13) Acrolein	3.930	56	116224	224.375	ug/l	99
14) Allyl chloride	4.704	41	263294	47.845	ug/l	88
15) Acrylonitrile	5.405	53	270572	239.878	ug/l	98
16) Acetone	4.161	43	264513	226.556	ug/l	99
17) Carbon Disulfide	4.423	76	416819	46.888	ug/l	99
18) Methyl Acetate	4.710	43	180500	53.969	ug/l	97
19) Methyl tert-butyl Ether	5.460	73	308939	48.143	ug/l	97
20) Methylene Chloride	4.954	84	182336	46.839	ug/l	92
21) trans-1,2-Dichloroethene	5.460	96	170174	47.176	ug/l	98
22) Diisopropyl ether	6.344	45	548474	47.923	ug/l	93
23) Vinyl Acetate	6.283	43	1815632	237.512	ug/l	100
24) 1,1-Dichloroethane	6.246	63	327109	47.045	ug/l	99
25) 2-Butanone	7.191	43	378087	237.771	ug/l	97
26) 2,2-Dichloropropane	7.191	77	166572	46.834	ug/l	100
27) cis-1,2-Dichloroethene	7.191	96	207106	47.792	ug/l	94
28) Bromochloromethane	7.533	49	158249	48.374	ug/l	87
29) Tetrahydrofuran	7.551	42	247313	247.317	ug/l	94
30) Chloroform	7.697	83	331309	46.983	ug/l	99
31) Cyclohexane	7.971	56	263340	44.363	ug/l	98
32) 1,1,1-Trichloroethane	7.892	97	235925	47.214	ug/l	99
36) 1,1-Dichloropropene	8.093	75	232959	48.069	ug/l	97
37) Ethyl Acetate	7.276	43	153726	47.655	ug/l	99
38) Carbon Tetrachloride	8.081	117	213729	46.865	ug/l	95
39) Methylcyclohexane	9.343	83	276342	47.272	ug/l	97
40) Benzene	8.337	78	713410	46.964	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032316.D
 Acq On : 01 Oct 2025 14:37
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDICCC050

Quant Time: Oct 02 21:15:16 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:10:58 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.502	41	86799	49.929	ug/l	92
42) 1,2-Dichloroethane	8.410	62	234579	47.194	ug/l	100
43) Isopropyl Acetate	8.435	43	275836	48.202	ug/l	100
44) Trichloroethene	9.099	130	165466	46.519	ug/l	84
45) 1,2-Dichloropropane	9.374	63	180898	47.709	ug/l	100
46) Dibromomethane	9.465	93	111827	47.962	ug/l	94
47) Bromodichloromethane	9.654	83	254689	47.759	ug/l	97
48) Methyl methacrylate	9.441	41	137281	49.341	ug/l #	92
49) 1,4-Dioxane	9.459	88	32650	1024.535	ug/l #	94
51) 4-Methyl-2-Pentanone	10.215	43	825948	249.195	ug/l	99
52) Toluene	10.392	92	454566	48.052	ug/l	99
53) t-1,3-Dichloropropene	10.611	75	253517	49.001	ug/l	99
54) cis-1,3-Dichloropropene	10.081	75	288719	48.447	ug/l	93
55) 1,1,2-Trichloroethane	10.788	97	148551	47.671	ug/l	97
56) Ethyl methacrylate	10.648	69	216484	49.633	ug/l	94
57) 1,3-Dichloropropane	10.934	76	264139	47.992	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.928	63	639919	275.675	ug/l	96
59) 2-Hexanone	10.971	43	581510	248.758	ug/l	99
60) Dibromochloromethane	11.129	129	172945	48.878	ug/l	96
61) 1,2-Dibromoethane	11.239	107	147146	48.427	ug/l	100
64) Tetrachloroethene	10.867	164	136139	46.522	ug/l	94
65) Chlorobenzene	11.660	112	502586	46.707	ug/l	96
66) 1,1,1,2-Tetrachloroethane	11.727	131	154835	46.199	ug/l	98
67) Ethyl Benzene	11.733	91	848140	47.287	ug/l	97
68) m/p-Xylenes	11.837	106	653426	94.476	ug/l	98
69) o-Xylene	12.166	106	311759	48.200	ug/l	100
70) Styrene	12.178	104	549550	48.664	ug/l	99
71) Bromoform	12.343	173	92293	48.043	ug/l #	100
73) Isopropylbenzene	12.465	105	780146	48.634	ug/l	100
74) N-amyl acetate	12.269	43	249273	48.711	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.715	83	189461	47.568	ug/l	99
76) 1,2,3-Trichloropropane	12.763	75	141741m	45.812	ug/l	
77) Bromobenzene	12.745	156	191637	49.560	ug/l	90
78) n-propylbenzene	12.800	91	961286	47.974	ug/l	97
79) 2-Chlorotoluene	12.891	91	590868	48.227	ug/l	100
80) 1,3,5-Trimethylbenzene	12.940	105	682722	49.221	ug/l	96
81) trans-1,4-Dichloro-2-b...	12.513	75	62771	51.537	ug/l	91
82) 4-Chlorotoluene	12.989	91	621247	47.694	ug/l	99
83) tert-Butylbenzene	13.202	119	552559	48.551	ug/l	99
84) 1,2,4-Trimethylbenzene	13.245	105	695101	49.283	ug/l	100
85) sec-Butylbenzene	13.379	105	836597	48.102	ug/l	96
86) p-Isopropyltoluene	13.495	119	703465	48.747	ug/l	99
87) 1,3-Dichlorobenzene	13.495	146	375062	47.901	ug/l	98
88) 1,4-Dichlorobenzene	13.574	146	362915	46.354	ug/l	99
89) n-Butylbenzene	13.818	91	677726	48.100	ug/l	99
90) Hexachloroethane	14.092	117	122267	47.269	ug/l	90
91) 1,2-Dichlorobenzene	13.867	146	328681	46.437	ug/l	97
92) 1,2-Dibromo-3-Chloropr...	14.483	75	34323	49.219	ug/l	87
93) 1,2,4-Trichlorobenzene	15.123	180	195251	46.003	ug/l	96
94) Hexachlorobutadiene	15.232	225	84805	43.703	ug/l	96
95) Naphthalene	15.360	128	514556	50.483	ug/l	99
96) 1,2,3-Trichlorobenzene	15.543	180	189852	47.458	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032316.D
Acq On : 01 Oct 2025 14:37
Operator : SY/MD
Sample : VSTDICCC050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:15:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:10:58 2025
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032316.D
 Acq On : 01 Oct 2025 14:37
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

VSTDICCC050

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

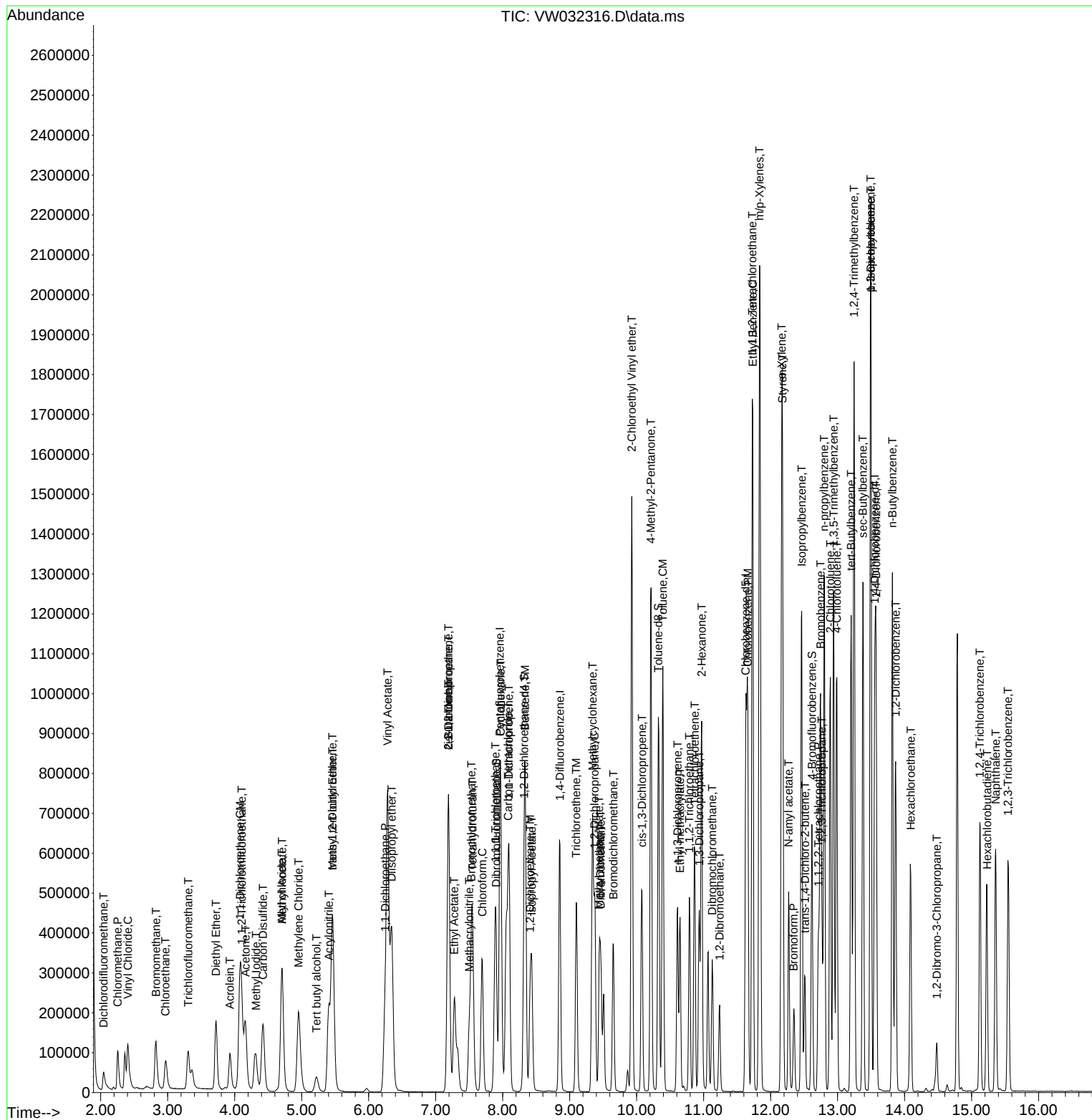
Quant Time: Oct 02 21:15:16 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032317.D
 Acq On : 01 Oct 2025 14:59
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDICC100

Quant Time: Oct 02 21:16:11 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:10:58 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.959	168	292547	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.849	114	528901	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	475984	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	231176	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.319	65	417484	97.841	ug/l	0.00
Spiked Amount 50.000	Range 63 - 155		Recovery = 195.680%#			
35) Dibromofluoromethane	7.898	113	350567	102.349	ug/l	0.00
Spiked Amount 50.000	Range 70 - 134		Recovery = 204.700%#			
50) Toluene-d8	10.331	98	1301655	102.965	ug/l	0.00
Spiked Amount 50.000	Range 74 - 123		Recovery = 205.920%#			
62) 4-Bromofluorobenzene	12.617	95	485396	101.586	ug/l	0.00
Spiked Amount 50.000	Range 17 - 146		Recovery = 203.180%#			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.046	85	165937	90.391	ug/l	98
3) Chloromethane	2.259	50	263109	92.885	ug/l	100
4) Vinyl Chloride	2.405	62	311778	92.194	ug/l	100
5) Bromomethane	2.820	94	228770	92.054	ug/l	94
6) Chloroethane	2.966	64	213270	95.521	ug/l	100
7) Trichlorofluoromethane	3.308	101	246809	97.475	ug/l	97
8) Diethyl Ether	3.722	74	210643	96.005	ug/l	88
9) 1,1,2-Trichlorotrifluo...	4.106	101	274433	90.363	ug/l	96
10) Methyl Iodide	4.308	142	411793	95.030	ug/l	99
11) Tert butyl alcohol	5.222	59	142390	440.862	ug/l	97
12) 1,1-Dichloroethene	4.076	96	312434	94.761	ug/l	90
13) Acrolein	3.930	56	241522	460.759	ug/l	100
14) Allyl chloride	4.704	41	538624	96.720	ug/l	89
15) Acrylonitrile	5.405	53	561280	491.730	ug/l	98
16) Acetone	4.161	43	508582	430.455	ug/l	99
17) Carbon Disulfide	4.423	76	887546	98.660	ug/l	100
18) Methyl Acetate	4.710	43	331793	98.033	ug/l	97
19) Methyl tert-butyl Ether	5.466	73	639931	98.544	ug/l	97
20) Methylene Chloride	4.960	84	368359	99.471	ug/l	96
21) trans-1,2-Dichloroethene	5.460	96	358450	98.197	ug/l	97
22) Diisopropyl ether	6.344	45	1141459	98.558	ug/l	91
23) Vinyl Acetate	6.283	43	3946823	510.205	ug/l	99
24) 1,1-Dichloroethane	6.246	63	683736	97.173	ug/l	98
25) 2-Butanone	7.197	43	767105	476.718	ug/l	99
26) 2,2-Dichloropropane	7.191	77	345332	95.948	ug/l	100
27) cis-1,2-Dichloroethene	7.191	96	433121	98.767	ug/l	95
28) Bromochloromethane	7.533	49	323538	97.732	ug/l	87
29) Tetrahydrofuran	7.551	42	499036	493.149	ug/l	94
30) Chloroform	7.691	83	697012	97.676	ug/l	96
31) Cyclohexane	7.971	56	544824	90.699	ug/l	94
32) 1,1,1-Trichloroethane	7.886	97	488662	96.637	ug/l	100
36) 1,1-Dichloropropene	8.093	75	486510	100.644	ug/l	98
37) Ethyl Acetate	7.277	43	322862	100.344	ug/l	99
38) Carbon Tetrachloride	8.081	117	458732	100.845	ug/l	90
39) Methylcyclohexane	9.343	83	601153	103.099	ug/l	98
40) Benzene	8.337	78	1506339	99.416	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032317.D
 Acq On : 01 Oct 2025 14:59
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025

Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:16:11 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.502	41	181036	104.404	ug/l	92
42) 1,2-Dichloroethane	8.410	62	487667	98.363	ug/l	99
43) Isopropyl Acetate	8.435	43	597878	104.746	ug/l	100
44) Trichloroethene	9.099	130	359102	101.217	ug/l	90
45) 1,2-Dichloropropane	9.380	63	375302	99.234	ug/l	99
46) Dibromomethane	9.465	93	231385	99.495	ug/l	95
47) Bromodichloromethane	9.654	83	542848	102.055	ug/l	96
48) Methyl methacrylate	9.441	41	293582	105.789	ug/l #	91
49) 1,4-Dioxane	9.465	88	66922	2105.342	ug/l	98
51) 4-Methyl-2-Pentanone	10.215	43	1663070	503.045	ug/l	100
52) Toluene	10.392	92	960973	101.843	ug/l	99
53) t-1,3-Dichloropropene	10.611	75	555072	107.561	ug/l	99
54) cis-1,3-Dichloropropene	10.081	75	625271	105.188	ug/l	92
55) 1,1,2-Trichloroethane	10.788	97	309412	99.546	ug/l	98
56) Ethyl methacrylate	10.648	69	477191	109.686	ug/l	95
57) 1,3-Dichloropropane	10.934	76	548954	99.997	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.928	63	1282918	554.092	ug/l	96
59) 2-Hexanone	10.971	43	1177144	504.847	ug/l	99
60) Dibromochloromethane	11.129	129	375002	106.254	ug/l	99
61) 1,2-Dibromoethane	11.239	107	301749	99.562	ug/l	97
64) Tetrachloroethene	10.867	164	273519	96.034	ug/l	88
65) Chlorobenzene	11.660	112	1041724	99.469	ug/l	97
66) 1,1,1,2-Tetrachloroethane	11.733	131	334400	102.516	ug/l	98
67) Ethyl Benzene	11.733	91	1805810	103.444	ug/l	97
68) m/p-Xylenes	11.837	106	1390632	206.584	ug/l	98
69) o-Xylene	12.166	106	667671	106.061	ug/l	99
70) Styrene	12.178	104	1128688	102.692	ug/l	99
71) Bromoform	12.349	173	192066	102.725	ug/l #	100
73) Isopropylbenzene	12.465	105	1685355	106.560	ug/l	100
74) N-amyl acetate	12.270	43	540543	107.133	ug/l	100
75) 1,1,2,2-Tetrachloroethane	12.715	83	385347	98.125	ug/l	100
76) 1,2,3-Trichloropropane	12.763	75	295124m	96.745	ug/l	
77) Bromobenzene	12.745	156	396745	104.063	ug/l	92
78) n-propylbenzene	12.800	91	2052249	103.878	ug/l	97
79) 2-Chlorotoluene	12.885	91	1213767	100.479	ug/l	97
80) 1,3,5-Trimethylbenzene	12.940	105	1439767	105.277	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.507	75	135383	112.737	ug/l	88
82) 4-Chlorotoluene	12.989	91	1299440	101.179	ug/l	99
83) tert-Butylbenzene	13.202	119	1179238	105.090	ug/l	98
84) 1,2,4-Trimethylbenzene	13.245	105	1445279	103.930	ug/l	99
85) sec-Butylbenzene	13.379	105	1756008	102.403	ug/l	99
86) p-Isopropyltoluene	13.495	119	1460991	102.680	ug/l	100
87) 1,3-Dichlorobenzene	13.495	146	766586	99.297	ug/l	98
88) 1,4-Dichlorobenzene	13.574	146	767903	99.477	ug/l	95
89) n-Butylbenzene	13.818	91	1440709	103.706	ug/l	98
90) Hexachloroethane	14.092	117	265991	104.296	ug/l	93
91) 1,2-Dichlorobenzene	13.867	146	678218	97.184	ug/l	95
92) 1,2-Dibromo-3-Chloropr...	14.483	75	67919	98.781	ug/l	89
93) 1,2,4-Trichlorobenzene	15.129	180	433724	103.645	ug/l	97
94) Hexachlorobutadiene	15.232	225	191123	99.894	ug/l	97
95) Naphthalene	15.360	128	1054202	104.900	ug/l	99
96) 1,2,3-Trichlorobenzene	15.549	180	399527	101.292	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032317.D
Acq On : 01 Oct 2025 14:59
Operator : SY/MD
Sample : VSTDICC100
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:16:11 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:10:58 2025
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032317.D
 Acq On : 01 Oct 2025 14:59
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

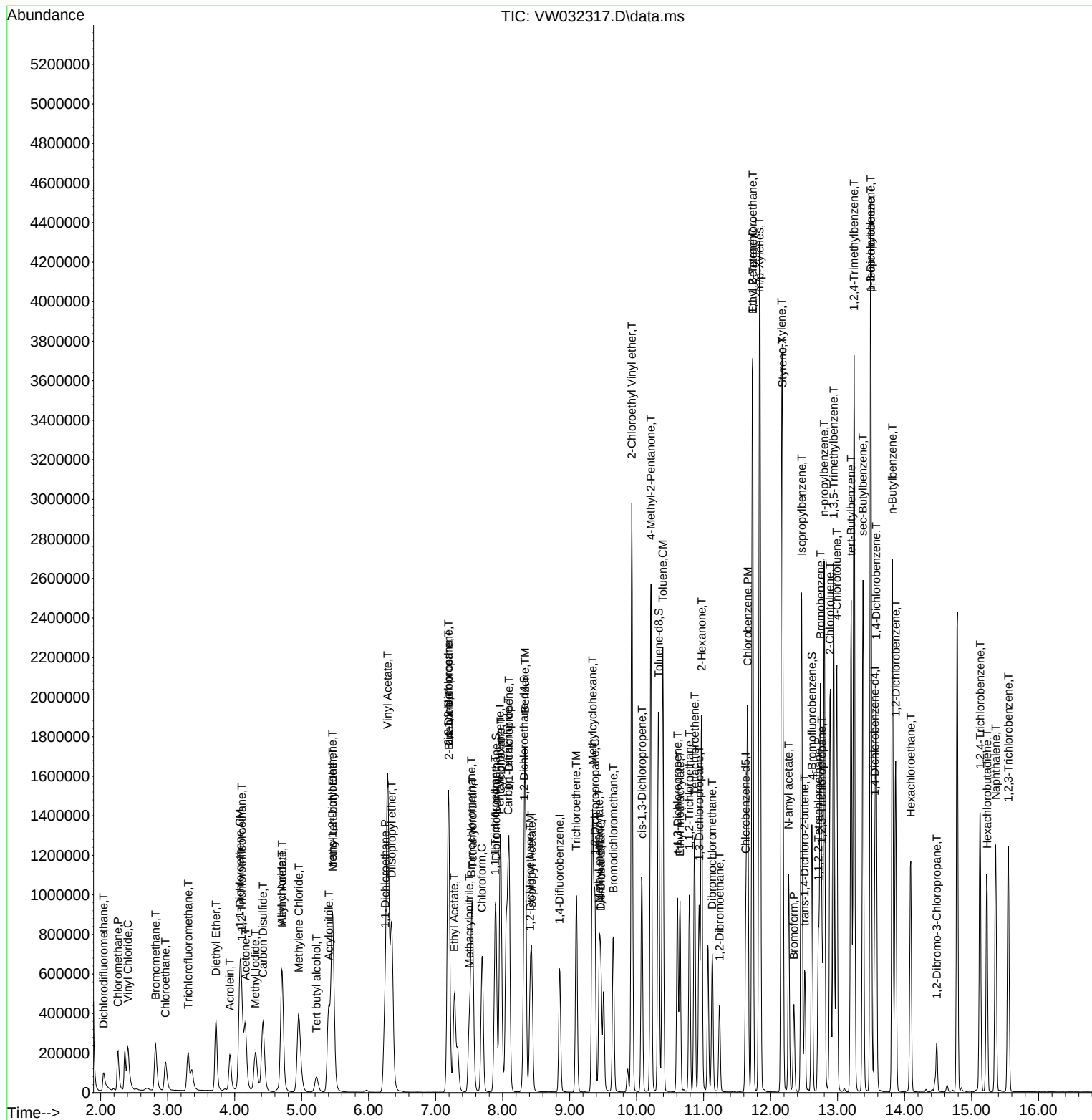
Quant Time: Oct 02 21:16:11 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032318.D
 Acq On : 01 Oct 2025 15:20
 Operator : SY/MD
 Sample : VSTDICC150
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDICC150

Quant Time: Oct 02 21:17:07 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:10:58 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

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

Internal Standards						
1) Pentafluorobenzene	7.965	168	291156	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.849	114	539030	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	484985	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	222254	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.319	65	616717	145.223	ug/l	0.00
Spiked Amount	50.000	Range	63 - 155	Recovery	= 290.440%#	
35) Dibromofluoromethane	7.898	113	503547	144.249	ug/l	0.00
Spiked Amount	50.000	Range	70 - 134	Recovery	= 288.500%#	
50) Toluene-d8	10.325	98	1931096	149.885	ug/l	0.00
Spiked Amount	50.000	Range	74 - 123	Recovery	= 299.780%#	
62) 4-Bromofluorobenzene	12.617	95	721146	148.089	ug/l	0.00
Spiked Amount	50.000	Range	17 - 146	Recovery	= 296.180%#	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.040	85	261383	143.063	ug/l	97
3) Chloromethane	2.259	50	404786	143.584	ug/l	97
4) Vinyl Chloride	2.405	62	470035	139.655	ug/l	98
5) Bromomethane	2.814	94	337072	136.281	ug/l	100
6) Chloroethane	2.966	64	315013	141.765	ug/l	100
7) Trichlorofluoromethane	3.302	101	390434	154.935	ug/l	90
8) Diethyl Ether	3.722	74	319023	146.096	ug/l	89
9) 1,1,2-Trichlorotrifluo...	4.100	101	417711	138.198	ug/l	92
10) Methyl Iodide	4.308	142	634551	147.136	ug/l	98
11) Tert butyl alcohol	5.222	59	234095	728.258	ug/l	96
12) 1,1-Dichloroethene	4.076	96	467506	142.471	ug/l	91
13) Acrolein	3.930	56	366309	702.158	ug/l	94
14) Allyl chloride	4.704	41	826844	149.185	ug/l	88
15) Acrylonitrile	5.405	53	873212	768.664	ug/l	98
16) Acetone	4.161	43	790475	672.241	ug/l	100
17) Carbon Disulfide	4.417	76	1328431	148.374	ug/l	99
18) Methyl Acetate	4.710	43	517404	153.605	ug/l	98
19) Methyl tert-butyl Ether	5.466	73	959825	148.511	ug/l	98
20) Methylene Chloride	4.960	84	546261	151.150	ug/l	98
21) trans-1,2-Dichloroethene	5.454	96	538776	148.302	ug/l	96
22) Diisopropyl ether	6.344	45	1710365	148.385	ug/l	93
23) Vinyl Acetate	6.283	43	6026856	782.812	ug/l	100
24) 1,1-Dichloroethane	6.246	63	1023465	146.150	ug/l	98
25) 2-Butanone	7.191	43	1210042	755.574	ug/l	99
26) 2,2-Dichloropropane	7.185	77	504110	140.732	ug/l	98
27) cis-1,2-Dichloroethene	7.191	96	650040	148.941	ug/l	95
28) Bromochloromethane	7.533	49	486570	147.682	ug/l	88
29) Tetrahydrofuran	7.551	42	782184	776.649	ug/l	94
30) Chloroform	7.691	83	1028785	144.857	ug/l	98
31) Cyclohexane	7.971	56	820370	137.222	ug/l	94
32) 1,1,1-Trichloroethane	7.886	97	717558	142.581	ug/l	99
36) 1,1-Dichloropropene	8.093	75	721795	146.511	ug/l	97
37) Ethyl Acetate	7.276	43	501366	152.893	ug/l	99
38) Carbon Tetrachloride	8.081	117	694408	149.786	ug/l	99
39) Methylcyclohexane	9.343	83	907851	152.772	ug/l	93
40) Benzene	8.337	78	2220041	143.766	ug/l	94

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032318.D
 Acq On : 01 Oct 2025 15:20
 Operator : SY/MD
 Sample : VSTDICC150
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

VSTDICC150

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025

Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:17:07 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.502	41	282967	160.121	ug/l	92
42) 1,2-Dichloroethane	8.410	62	732140	144.899	ug/l	99
43) Isopropyl Acetate	8.435	43	929737	159.826	ug/l	99
44) Trichloroethene	9.099	130	531979	147.127	ug/l	87
45) 1,2-Dichloropropane	9.374	63	559634	145.193	ug/l	99
46) Dibromomethane	9.465	93	347379	146.565	ug/l	95
47) Bromodichloromethane	9.654	83	807902	149.030	ug/l	96
48) Methyl methacrylate	9.441	41	459352	162.411	ug/l #	91
49) 1,4-Dioxane	9.459	88	102853	3174.916	ug/l	93
51) 4-Methyl-2-Pentanone	10.215	43	2563648	760.880	ug/l	99
52) Toluene	10.392	92	1416495	147.299	ug/l	96
53) t-1,3-Dichloropropene	10.611	75	845826	160.824	ug/l	99
54) cis-1,3-Dichloropropene	10.081	75	944717	155.941	ug/l	93
55) 1,1,2-Trichloroethane	10.788	97	460089	145.242	ug/l	98
56) Ethyl methacrylate	10.648	69	733869	165.515	ug/l	95
57) 1,3-Dichloropropane	10.934	76	820516	146.656	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.928	63	2014602	853.757	ug/l	96
59) 2-Hexanone	10.971	43	1842050	775.163	ug/l	99
60) Dibromochloromethane	11.129	129	554578	154.183	ug/l	98
61) 1,2-Dibromoethane	11.239	107	463449	150.041	ug/l	99
64) Tetrachloroethene	10.867	164	406564	140.097	ug/l #	82
65) Chlorobenzene	11.660	112	1557035	145.914	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.733	131	510773	153.680	ug/l	97
67) Ethyl Benzene	11.733	91	2684011	150.897	ug/l	100
68) m/p-Xylenes	11.837	106	2051963	299.170	ug/l	100
69) o-Xylene	12.166	106	986773	153.842	ug/l	99
70) Styrene	12.178	104	1725722	154.098	ug/l	98
71) Bromoform	12.349	173	304225	159.692	ug/l #	99
73) Isopropylbenzene	12.465	105	2476143	162.844	ug/l	99
74) N-amyl acetate	12.269	43	829796	171.063	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.715	83	579686	153.538	ug/l	99
76) 1,2,3-Trichloropropane	12.763	75	441352m	150.487	ug/l	
77) Bromobenzene	12.745	156	569028	155.243	ug/l	89
78) n-propylbenzene	12.800	91	3001989	158.050	ug/l	98
79) 2-Chlorotoluene	12.891	91	1832239	157.767	ug/l	97
80) 1,3,5-Trimethylbenzene	12.940	105	2080060	158.201	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.513	75	204880	177.457	ug/l	89
82) 4-Chlorotoluene	12.983	91	1892838	153.300	ug/l	99
83) tert-Butylbenzene	13.202	119	1689407	156.599	ug/l	93
84) 1,2,4-Trimethylbenzene	13.245	105	2037112	152.369	ug/l	99
85) sec-Butylbenzene	13.379	105	2654122	160.991	ug/l	97
86) p-Isopropyltoluene	13.495	119	2141983	156.585	ug/l	99
87) 1,3-Dichlorobenzene	13.495	146	1147994	154.671	ug/l	97
88) 1,4-Dichlorobenzene	13.574	146	1064904	143.490	ug/l	99
89) n-Butylbenzene	13.818	91	2169211	162.413	ug/l	99
90) Hexachloroethane	14.092	117	392482	160.071	ug/l	94
91) 1,2-Dichlorobenzene	13.867	146	1027041	153.076	ug/l	94
92) 1,2-Dibromo-3-Chloropr...	14.476	75	106355	160.891	ug/l	93
93) 1,2,4-Trichlorobenzene	15.129	180	664620	165.196	ug/l	97
94) Hexachlorobutadiene	15.226	225	283170	153.946	ug/l	99
95) Naphthalene	15.360	128	1692473	175.173	ug/l	99
96) 1,2,3-Trichlorobenzene	15.549	180	596762	157.371	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032318.D
Acq On : 01 Oct 2025 15:20
Operator : SY/MD
Sample : VSTDICC150
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:17:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:10:58 2025
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032318.D
 Acq On : 01 Oct 2025 15:20
 Operator : SY/MD
 Sample : VSTDICC150
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

VSTDICC150

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

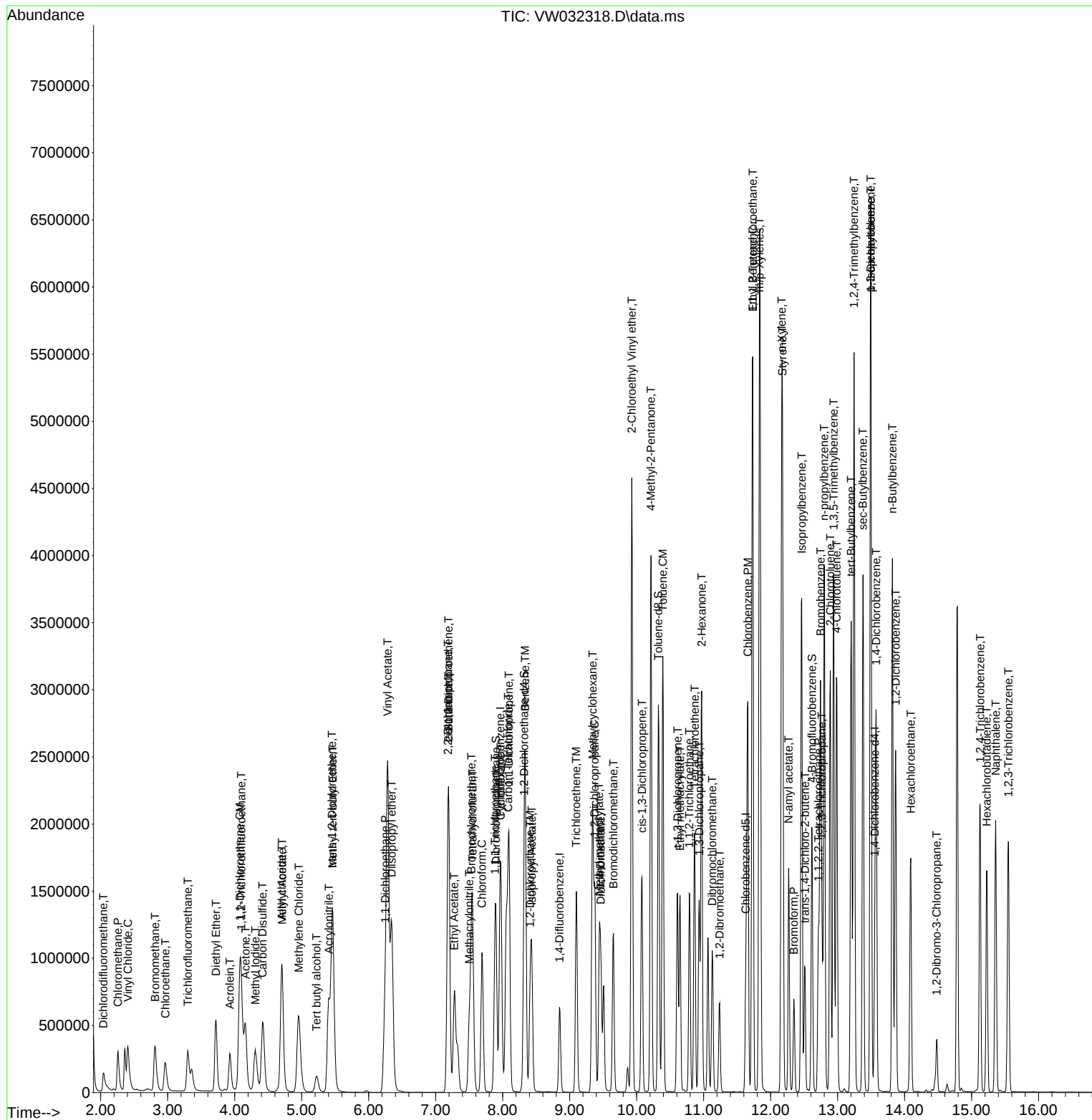
Quant Time: Oct 02 21:17:07 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:10:58 2025

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032320.D
 Acq On : 01 Oct 2025 16:04
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 ICVVW100125

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
 Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:27:08 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:24:16 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.959	168	286648	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.855	114	542900	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	498213	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	235528	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.319	65	211714	50.638	ug/l	0.00
Spiked Amount	50.000	Range	63 - 155	Recovery	=	101.280%
35) Dibromofluoromethane	7.904	113	172657	49.108	ug/l	0.00
Spiked Amount	50.000	Range	70 - 134	Recovery	=	98.220%
50) Toluene-d8	10.325	98	645322	49.731	ug/l	0.00
Spiked Amount	50.000	Range	74 - 123	Recovery	=	99.460%
62) 4-Bromofluorobenzene	12.617	95	236491	48.218	ug/l	0.00
Spiked Amount	50.000	Range	17 - 146	Recovery	=	96.440%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.046	85	84688	47.081	ug/l	96
3) Chloromethane	2.259	50	138637	49.950	ug/l	96
4) Vinyl Chloride	2.405	62	159289	48.072	ug/l	97
5) Bromomethane	2.826	94	115275	47.340	ug/l	97
6) Chloroethane	2.972	64	106181	48.536	ug/l	97
7) Trichlorofluoromethane	3.314	101	123819	49.907	ug/l	98
8) Diethyl Ether	3.722	74	106705	49.634	ug/l	89
9) 1,1,2-Trichlorotrifluo...	4.094	101	143716	48.296	ug/l	93
10) Methyl Iodide	4.320	142	201132	47.371	ug/l	100
11) Tert butyl alcohol	5.228	59	77891	246.126	ug/l	97
12) 1,1-Dichloroethene	4.082	96	160883	49.800	ug/l	95
13) Acrolein	3.930	56	119840	233.328	ug/l	99
14) Allyl chloride	4.704	41	271835	49.818	ug/l	88
15) Acrylonitrile	5.405	53	288801	258.222	ug/l	100
16) Acetone	4.161	43	264871	228.796	ug/l	100
17) Carbon Disulfide	4.429	76	436417	49.511	ug/l	100
18) Methyl Acetate	4.710	43	179271	54.058	ug/l	96
19) Methyl tert-butyl Ether	5.466	73	326683	51.342	ug/l	95
20) Methylene Chloride	4.954	84	194169	50.746	ug/l	97
21) trans-1,2-Dichloroethene	5.460	96	180820	50.555	ug/l	98
22) Diisopropyl ether	6.344	45	581042	51.202	ug/l	95
23) Vinyl Acetate	6.283	43	1998017	263.598	ug/l	100
24) 1,1-Dichloroethane	6.246	63	344370	49.949	ug/l	99
25) 2-Butanone	7.197	43	399441	253.341	ug/l	97
26) 2,2-Dichloropropane	7.191	77	171137	48.528	ug/l	99
27) cis-1,2-Dichloroethene	7.191	96	218943	50.954	ug/l	94
28) Bromochloromethane	7.533	49	164051	50.575	ug/l	85
29) Tetrahydrofuran	7.551	42	265382	267.648	ug/l	94
30) Chloroform	7.691	83	356459	50.980	ug/l	98
31) Cyclohexane	7.971	56	283574	48.179	ug/l	99
32) 1,1,1-Trichloroethane	7.892	97	247681	49.989	ug/l	98
36) 1,1-Dichloropropene	8.100	75	246414	49.661	ug/l	98
37) Ethyl Acetate	7.276	43	171315	51.871	ug/l	100
38) Carbon Tetrachloride	8.081	117	231677	49.617	ug/l	96
39) Methylcyclohexane	9.343	83	308455	51.537	ug/l	96
40) Benzene	8.337	78	758892	48.794	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
 Data File : VW032320.D
 Acq On : 01 Oct 2025 16:04
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :

MSVOA_W

ClientSampleId :

ICVWV100125

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025

Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:27:08 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M

Quant Title : SW846 8260

QLast Update : Thu Oct 02 21:24:16 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.502	41	101959	57.284	ug/l #	85
42) 1,2-Dichloroethane	8.416	62	247842	48.701	ug/l	99
43) Isopropyl Acetate	8.435	43	303946	51.877	ug/l	100
44) Trichloroethene	9.105	130	178095	48.904	ug/l	87
45) 1,2-Dichloropropane	9.374	63	191384	49.299	ug/l	97
46) Dibromomethane	9.465	93	118979	49.841	ug/l	94
47) Bromodichloromethane	9.654	83	273884	50.162	ug/l	99
48) Methyl methacrylate	9.441	41	150648	52.884	ug/l #	91
49) 1,4-Dioxane	9.465	88	34528	1058.229	ug/l	98
51) 4-Methyl-2-Pentanone	10.215	43	878208	258.790	ug/l	100
52) Toluene	10.392	92	484871	50.061	ug/l	95
53) t-1,3-Dichloropropene	10.611	75	271391	51.234	ug/l	100
54) cis-1,3-Dichloropropene	10.075	75	306358	50.209	ug/l	97
55) 1,1,2-Trichloroethane	10.788	97	159106	49.869	ug/l	99
56) Ethyl methacrylate	10.648	69	233853	52.367	ug/l	93
57) 1,3-Dichloropropane	10.934	76	278336	49.394	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.928	63	658757	277.181	ug/l	96
59) 2-Hexanone	10.971	43	627586	262.215	ug/l	99
60) Dibromochloromethane	11.136	129	181813	50.187	ug/l	98
61) 1,2-Dibromoethane	11.239	107	154714	49.732	ug/l	99
64) Tetrachloroethene	10.867	164	147899	49.611	ug/l	96
65) Chlorobenzene	11.660	112	535619	48.862	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.733	131	166082	48.644	ug/l	99
67) Ethyl Benzene	11.733	91	922981	50.513	ug/l	100
68) m/p-Xylenes	11.837	106	699490	99.276	ug/l	99
69) o-Xylene	12.166	106	332905	50.523	ug/l	100
70) Styrene	12.178	104	594393	51.667	ug/l	97
71) Bromoform	12.349	173	100214	51.207	ug/l #	97
73) Isopropylbenzene	12.465	105	839135	52.076	ug/l	100
74) N-amyl acetate	12.269	43	276033	53.697	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.715	83	203339	50.822	ug/l	100
76) 1,2,3-Trichloropropane	12.763	75	157491m	50.813	ug/l	
77) Bromobenzene	12.745	156	196776	50.659	ug/l	87
78) n-propylbenzene	12.800	91	1039770	51.657	ug/l	98
79) 2-Chlorotoluene	12.891	91	631196	51.287	ug/l	97
80) 1,3,5-Trimethylbenzene	12.940	105	729628	52.365	ug/l	97
81) trans-1,4-Dichloro-2-b...	12.513	75	66508	54.360	ug/l	91
82) 4-Chlorotoluene	12.989	91	663842	50.734	ug/l	100
83) tert-Butylbenzene	13.202	119	611748	53.510	ug/l	97
84) 1,2,4-Trimethylbenzene	13.245	105	729966	51.522	ug/l	99
85) sec-Butylbenzene	13.379	105	904532	51.774	ug/l	99
86) p-Isopropyltoluene	13.495	119	763912	52.697	ug/l	99
87) 1,3-Dichlorobenzene	13.501	146	397346	50.518	ug/l	97
88) 1,4-Dichlorobenzene	13.574	146	380433	48.372	ug/l	97
89) n-Butylbenzene	13.818	91	748452	52.880	ug/l	99
90) Hexachloroethane	14.086	117	134862	51.903	ug/l	94
91) 1,2-Dichlorobenzene	13.867	146	347039	48.810	ug/l	97
92) 1,2-Dibromo-3-Chloropr...	14.476	75	36524	52.139	ug/l	88
93) 1,2,4-Trichlorobenzene	15.129	180	218198	51.178	ug/l	93
94) Hexachlorobutadiene	15.232	225	90599	46.478	ug/l	87
95) Naphthalene	15.360	128	572147	55.881	ug/l	99
96) 1,2,3-Trichlorobenzene	15.549	180	206623	51.417	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032320.D
Acq On : 01 Oct 2025 16:04
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
ICVWV100125

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025

Quant Time: Oct 02 21:27:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

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

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

Instrument :
MSVOA_W
ClientSampleId :
ICVW100125

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 10/03/2025
Supervised By :Semsettin Yesilyurt 10/03/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032320.D
Acq On : 01 Oct 2025 16:04
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
ICVWVW100125

Quant Time: Oct 02 21:27:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	99	0.00
2 T	Dichlorodifluoromethane	0.314	0.295	6.1	111	0.00
3 P	Chloromethane	0.484	0.484	0.0	115	0.00
4 C	Vinyl Chloride	0.578	0.556	3.8#	104	0.00
5 T	Bromomethane	0.425	0.402	5.4	104	0.00
6 T	Chloroethane	0.382	0.370	3.1	103	0.00
7 T	Trichlorofluoromethane	0.433	0.432	0.2	102	0.00
8 T	Diethyl Ether	0.375	0.372	0.8	107	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.519	0.501	3.5	107	-0.01
10 T	Methyl Iodide	0.741	0.702	5.3	100	0.00
11 T	Tert butyl alcohol	0.055	0.054	1.8	110	0.00
12 CM	1,1-Dichloroethene	0.564	0.561	0.5#	107	0.00
13 T	Acrolein	0.090	0.084	6.7	103	0.00
14 T	Allyl chloride	0.952	0.948	0.4	103	0.00
15 T	Acrylonitrile	0.195	0.202	-3.6	107	0.00
16 T	Acetone	0.202	0.185	8.4	100	0.00
17 T	Carbon Disulfide	1.538	1.522	1.0	105	0.00
18 T	Methyl Acetate	0.578	0.625	-8.1	99	0.00
19 T	Methyl tert-butyl Ether	1.110	1.140	-2.7	106	0.00
20 T	Methylene Chloride	0.838	0.677	19.2	106	0.00
21 T	trans-1,2-Dichloroethene	0.624	0.631	-1.1	106	0.00
22 T	Diisopropyl ether	1.979	2.027	-2.4	106	0.00
23 T	Vinyl Acetate	1.322	1.394	-5.4	110	0.00
24 P	1,1-Dichloroethane	1.203	1.201	0.2	105	0.00
25 T	2-Butanone	0.275	0.279	-1.5	106	0.00
26 T	2,2-Dichloropropane	0.615	0.597	2.9	103	0.00
27 T	cis-1,2-Dichloroethene	0.749	0.764	-2.0	106	0.00
28 T	Bromochloromethane	0.566	0.572	-1.1	104	0.00
29 T	Tetrahydrofuran	0.173	0.185	-6.9	107	0.00
30 C	Chloroform	1.220	1.244	-2.0#	108	0.00
31 T	Cyclohexane	1.027	0.989	3.7	108	0.00
32 T	1,1,1-Trichloroethane	0.864	0.864	0.0	105	0.00
33 S	1,2-Dichloroethane-d4	0.729	0.739	-1.4	105	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
35 S	Dibromofluoromethane	0.324	0.318	1.9	106	0.00
36 T	1,1-Dichloropropene	0.457	0.454	0.7	106	0.00
37 T	Ethyl Acetate	0.304	0.316	-3.9	111	0.00
38 T	Carbon Tetrachloride	0.430	0.427	0.7	108	0.00
39 T	Methylcyclohexane	0.551	0.568	-3.1	112	0.00
40 TM	Benzene	1.432	1.398	2.4	106	0.00
41 T	Methacrylonitrile	0.164	0.188	-14.6	117	0.00
42 TM	1,2-Dichloroethane	0.469	0.457	2.6	106	0.00
43 T	Isopropyl Acetate	0.540	0.560	-3.7	110	0.00
44 TM	Trichloroethene	0.335	0.328	2.1	108	0.00
45 C	1,2-Dichloropropane	0.358	0.353	1.4#	106	0.00
46 T	Dibromomethane	0.220	0.219	0.5	106	0.00
47 T	Bromodichloromethane	0.503	0.504	-0.2	108	0.00
48 T	Methyl methacrylate	0.262	0.277	-5.7	110	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032320.D
Acq On : 01 Oct 2025 16:04
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
ICVWVW100125

Quant Time: Oct 02 21:27:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.003	0.003	0.0	106	0.00
50 S	Toluene-d8	1.195	1.189	0.5	102	0.00
51 T	4-Methyl-2-Pentanone	0.313	0.324	-3.5	106	0.00
52 CM	Toluene	0.892	0.893	-0.1#	107	0.00
53 T	t-1,3-Dichloropropene	0.488	0.500	-2.5	107	0.00
54 T	cis-1,3-Dichloropropene	0.562	0.564	-0.4	106	0.00
55 T	1,1,2-Trichloroethane	0.294	0.293	0.3	107	0.00
56 T	Ethyl methacrylate	0.411	0.431	-4.9	108	0.00
57 T	1,3-Dichloropropane	0.519	0.513	1.2	105	0.00
58 T	2-Chloroethyl Vinyl ether	0.219	0.243	-11.0	103	0.00
59 T	2-Hexanone	0.220	0.231	-5.0	108	0.00
60 T	Dibromochloromethane	0.334	0.335	-0.3	105	0.00
61 T	1,2-Dibromoethane	0.287	0.285	0.7	105	0.00
62 S	4-Bromofluorobenzene	0.452	0.436	3.5	100	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
64 T	Tetrachloroethene	0.299	0.297	0.7	109	0.00
65 PM	Chlorobenzene	1.100	1.075	2.3	107	0.00
66 T	1,1,1,2-Tetrachloroethane	0.343	0.333	2.9	107	0.00
67 C	Ethyl Benzene	1.834	1.853	-1.0#	109	0.00
68 T	m/p-Xylenes	0.707	0.702	0.7	107	0.00
69 T	o-Xylene	0.661	0.668	-1.1	107	0.00
70 T	Styrene	1.155	1.193	-3.3	108	0.00
71 P	Bromoform	0.196	0.201	-2.6	109	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
73 T	Isopropylbenzene	3.421	3.563	-4.2	108	0.00
74 T	N-amyl acetate	1.091	1.172	-7.4	111	0.00
75 P	1,1,2,2-Tetrachloroethane	0.849	0.863	-1.6	107	0.00
76 T	1,2,3-Trichloropropane	0.658	0.669	-1.7	111	0.00
77 T	Bromobenzene	0.825	0.835	-1.2	103	0.00
78 T	n-propylbenzene	4.273	4.415	-3.3	108	0.00
79 T	2-Chlorotoluene	2.613	2.680	-2.6	107	0.00
80 T	1,3,5-Trimethylbenzene	2.958	3.098	-4.7	107	0.00
81 T	trans-1,4-Dichloro-2-butene	0.260	0.282	-8.5	106	0.00
82 T	4-Chlorotoluene	2.778	2.819	-1.5	107	0.00
83 T	tert-Butylbenzene	2.427	2.597	-7.0	111	0.00
84 T	1,2,4-Trimethylbenzene	3.008	3.099	-3.0	105	0.00
85 T	sec-Butylbenzene	3.709	3.840	-3.5	108	0.00
86 T	p-Isopropyltoluene	3.077	3.243	-5.4	109	0.00
87 T	1,3-Dichlorobenzene	1.670	1.687	-1.0	106	0.00
88 T	1,4-Dichlorobenzene	1.670	1.615	3.3	105	0.00
89 T	n-Butylbenzene	3.005	3.178	-5.8	110	0.00
90 T	Hexachloroethane	0.552	0.573	-3.8	110	0.00
91 T	1,2-Dichlorobenzene	1.509	1.473	2.4	106	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.149	0.155	-4.0	106	0.00
93 T	1,2,4-Trichlorobenzene	0.905	0.926	-2.3	112	0.00
94 T	Hexachlorobutadiene	0.414	0.385	7.0	107	0.00
95 T	Naphthalene	2.174	2.429	-11.7	111	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032320.D
Acq On : 01 Oct 2025 16:04
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
ICVWV100125

Quant Time: Oct 02 21:27:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.853	0.877	-2.8	109	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032320.D
Acq On : 01 Oct 2025 16:04
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
ICVWVW100125

Quant Time: Oct 02 21:27:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	99	0.00
2 T	Dichlorodifluoromethane	50.000	47.081	5.8	111	0.00
3 P	Chloromethane	50.000	49.950	0.1	115	0.00
4 C	Vinyl Chloride	50.000	48.072	3.9#	104	0.00
5 T	Bromomethane	50.000	47.340	5.3	104	0.00
6 T	Chloroethane	50.000	48.536	2.9	103	0.00
7 T	Trichlorofluoromethane	50.000	49.907	0.2	102	0.00
8 T	Diethyl Ether	50.000	49.634	0.7	107	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	48.296	3.4	107	-0.01
10 T	Methyl Iodide	50.000	47.371	5.3	100	0.00
11 T	Tert butyl alcohol	250.000	246.126	1.5	110	0.00
12 CM	1,1-Dichloroethene	50.000	49.800	0.4#	107	0.00
13 T	Acrolein	250.000	233.328	6.7	103	0.00
14 T	Allyl chloride	50.000	49.818	0.4	103	0.00
15 T	Acrylonitrile	250.000	258.222	-3.3	107	0.00
16 T	Acetone	250.000	228.796	8.5	100	0.00
17 T	Carbon Disulfide	50.000	49.511	1.0	105	0.00
18 T	Methyl Acetate	50.000	54.058	-8.1	99	0.00
19 T	Methyl tert-butyl Ether	50.000	51.342	-2.7	106	0.00
20 T	Methylene Chloride	50.000	50.746	-1.5	106	0.00
21 T	trans-1,2-Dichloroethene	50.000	50.555	-1.1	106	0.00
22 T	Diisopropyl ether	50.000	51.202	-2.4	106	0.00
23 T	Vinyl Acetate	250.000	263.598	-5.4	110	0.00
24 P	1,1-Dichloroethane	50.000	49.949	0.1	105	0.00
25 T	2-Butanone	250.000	253.341	-1.3	106	0.00
26 T	2,2-Dichloropropane	50.000	48.528	2.9	103	0.00
27 T	cis-1,2-Dichloroethene	50.000	50.954	-1.9	106	0.00
28 T	Bromochloromethane	50.000	50.575	-1.2	104	0.00
29 T	Tetrahydrofuran	250.000	267.648	-7.1	107	0.00
30 C	Chloroform	50.000	50.980	-2.0#	108	0.00
31 T	Cyclohexane	50.000	48.179	3.6	108	0.00
32 T	1,1,1-Trichloroethane	50.000	49.989	0.0	105	0.00
33 S	1,2-Dichloroethane-d4	50.000	50.638	-1.3	105	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	102	0.00
35 S	Dibromofluoromethane	50.000	49.108	1.8	106	0.00
36 T	1,1-Dichloropropene	50.000	49.661	0.7	106	0.00
37 T	Ethyl Acetate	50.000	51.871	-3.7	111	0.00
38 T	Carbon Tetrachloride	50.000	49.617	0.8	108	0.00
39 T	Methylcyclohexane	50.000	51.537	-3.1	112	0.00
40 TM	Benzene	50.000	48.794	2.4	106	0.00
41 T	Methacrylonitrile	50.000	57.284	-14.6	117	0.00
42 TM	1,2-Dichloroethane	50.000	48.701	2.6	106	0.00
43 T	Isopropyl Acetate	50.000	51.877	-3.8	110	0.00
44 TM	Trichloroethene	50.000	48.904	2.2	108	0.00
45 C	1,2-Dichloropropane	50.000	49.299	1.4#	106	0.00
46 T	Dibromomethane	50.000	49.841	0.3	106	0.00
47 T	Bromodichloromethane	50.000	50.162	-0.3	108	0.00
48 T	Methyl methacrylate	50.000	52.884	-5.8	110	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032320.D
Acq On : 01 Oct 2025 16:04
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
ICVWVW100125

Quant Time: Oct 02 21:27:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	1058.229	-5.8	106	0.00
50 S	Toluene-d8	50.000	49.731	0.5	102	0.00
51 T	4-Methyl-2-Pentanone	250.000	258.790	-3.5	106	0.00
52 CM	Toluene	50.000	50.061	-0.1#	107	0.00
53 T	t-1,3-Dichloropropene	50.000	51.234	-2.5	107	0.00
54 T	cis-1,3-Dichloropropene	50.000	50.209	-0.4	106	0.00
55 T	1,1,2-Trichloroethane	50.000	49.869	0.3	107	0.00
56 T	Ethyl methacrylate	50.000	52.367	-4.7	108	0.00
57 T	1,3-Dichloropropane	50.000	49.394	1.2	105	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	277.181	-10.9	103	0.00
59 T	2-Hexanone	250.000	262.215	-4.9	108	0.00
60 T	Dibromochloromethane	50.000	50.187	-0.4	105	0.00
61 T	1,2-Dibromoethane	50.000	49.732	0.5	105	0.00
62 S	4-Bromofluorobenzene	50.000	48.218	3.6	100	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	102	0.00
64 T	Tetrachloroethene	50.000	49.611	0.8	109	0.00
65 PM	Chlorobenzene	50.000	48.862	2.3	107	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	48.644	2.7	107	0.00
67 C	Ethyl Benzene	50.000	50.513	-1.0#	109	0.00
68 T	m/p-Xylenes	100.000	99.276	0.7	107	0.00
69 T	o-Xylene	50.000	50.523	-1.0	107	0.00
70 T	Styrene	50.000	51.667	-3.3	108	0.00
71 P	Bromoform	50.000	51.207	-2.4	109	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	100	0.00
73 T	Isopropylbenzene	50.000	52.076	-4.2	108	0.00
74 T	N-ethyl acetate	50.000	53.697	-7.4	111	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	50.822	-1.6	107	0.00
76 T	1,2,3-Trichloropropane	50.000	50.813	-1.6	111	0.00
77 T	Bromobenzene	50.000	50.659	-1.3	103	0.00
78 T	n-propylbenzene	50.000	51.657	-3.3	108	0.00
79 T	2-Chlorotoluene	50.000	51.287	-2.6	107	0.00
80 T	1,3,5-Trimethylbenzene	50.000	52.365	-4.7	107	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	54.360	-8.7	106	0.00
82 T	4-Chlorotoluene	50.000	50.734	-1.5	107	0.00
83 T	tert-Butylbenzene	50.000	53.510	-7.0	111	0.00
84 T	1,2,4-Trimethylbenzene	50.000	51.522	-3.0	105	0.00
85 T	sec-Butylbenzene	50.000	51.774	-3.5	108	0.00
86 T	p-Isopropyltoluene	50.000	52.697	-5.4	109	0.00
87 T	1,3-Dichlorobenzene	50.000	50.518	-1.0	106	0.00
88 T	1,4-Dichlorobenzene	50.000	48.372	3.3	105	0.00
89 T	n-Butylbenzene	50.000	52.880	-5.8	110	0.00
90 T	Hexachloroethane	50.000	51.903	-3.8	110	0.00
91 T	1,2-Dichlorobenzene	50.000	48.810	2.4	106	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	52.139	-4.3	106	0.00
93 T	1,2,4-Trichlorobenzene	50.000	51.178	-2.4	112	0.00
94 T	Hexachlorobutadiene	50.000	46.478	7.0	107	0.00
95 T	Naphthalene	50.000	55.881	-11.8	111	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032320.D
Acq On : 01 Oct 2025 16:04
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
ICVWVW100125

Quant Time: Oct 02 21:27:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	51.417	-2.8	109	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: AECO02
 Lab Code: ACE SDG No.: Q3363
 Instrument ID: MSVOA_Y Calibration Date(s): 10/07/2025 10/07/2025
 Heated Purge: (Y/N) Y Calibration Time(s): 09:17 12:32
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VY023384.D		RRF010 = VY023385.D		RRF020 = VY023386.D			
		RRF050 = VY023387.D		RRF100 = VY023388.D		RRF150 = VY023389.D			
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD	
Dichlorodifluoromethane	0.397	0.399	0.400	0.321	0.310	0.333	0.360	12	
Chloromethane	0.518	0.557	0.512	0.449	0.438	0.467	0.490	9.4	
Vinyl Chloride	0.660	0.684	0.659	0.598	0.597	0.633	0.639	5.6	
Bromomethane	0.601	0.596	0.548	0.469	0.483	0.518	0.536	10.4	
Chloroethane	0.441	0.462	0.453	0.414	0.413	0.429	0.435	4.7	
Trichlorofluoromethane	0.884	0.920	0.946	0.842	0.850	0.877	0.887	4.5	
1,1,2-Trichlorotrifluoroethane	0.484	0.486	0.479	0.437	0.429	0.445	0.460	5.6	
1,1-Dichloroethene	0.449	0.475	0.456	0.427	0.426	0.443	0.446	4.1	
Acetone	0.128	0.117	0.094	0.084	0.085	0.089	0.100	18.7	
Carbon Disulfide	1.291	1.367	1.320	1.225	1.210	1.246	1.277	4.7	
Methyl tert-butyl Ether	1.006	1.075	1.075	1.020	1.091	1.165	1.072	5.3	
Methyl Acetate	0.244	0.265	0.260	0.245	0.266	0.286	0.261	6	
Methylene Chloride	0.625	0.634	0.576	0.458	0.463	0.473	0.538	15.4	
trans-1,2-Dichloroethene	0.494	0.504	0.507	0.470	0.478	0.494	0.491	2.9	
1,1-Dichloroethane	0.800	0.835	0.827	0.759	0.765	0.792	0.796	3.9	
Cyclohexane	0.797	0.717	0.697	0.643	0.644	0.676	0.696	8.3	
2-Butanone	0.133	0.134	0.115	0.105	0.115	0.126	0.122	9.6	
Carbon Tetrachloride	0.483	0.501	0.504	0.481	0.487	0.503	0.493	2.1	
cis-1,2-Dichloroethene	0.542	0.584	0.582	0.542	0.563	0.591	0.567	3.8	
Bromochloromethane	0.332	0.323	0.320	0.267	0.270	0.273	0.297	10.2	
Chloroform	0.886	0.912	0.901	0.835	0.842	0.874	0.875	3.5	
1,1,1-Trichloroethane	0.808	0.814	0.822	0.767	0.764	0.796	0.795	3.1	
Methylcyclohexane	0.491	0.486	0.537	0.527	0.554	0.583	0.530	7	
Benzene	1.253	1.302	1.322	1.259	1.281	1.312	1.288	2.2	
1,2-Dichloroethane	0.328	0.346	0.343	0.315	0.324	0.338	0.332	3.6	
Trichloroethene	0.380	0.381	0.386	0.367	0.372	0.376	0.377	1.8	
1,2-Dichloropropane	0.276	0.289	0.292	0.274	0.283	0.293	0.285	2.9	
Bromodichloromethane	0.440	0.463	0.459	0.439	0.449	0.468	0.453	2.7	
4-Methyl-2-Pentanone	0.141	0.159	0.161	0.159	0.180	0.196	0.166	11.6	
Toluene	0.777	0.818	0.855	0.827	0.855	0.885	0.836	4.5	

* 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: AllianceContract: AECO02Lab Code: ACESDG No.: Q3363Instrument ID: MSVOA_YCalibration Date(s): 10/07/2025 10/07/2025Heated Purge: (Y/N) YCalibration Time(s): 09:17 12:32GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VY023384.D		RRF010 = VY023385.D		RRF020 = VY023386.D			
		RRF050 = VY023387.D		RRF100 = VY023388.D		RRF150 = VY023389.D			
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD	
t-1,3-Dichloropropene	0.357	0.380	0.390	0.385	0.415	0.438	0.394	7.2	
cis-1,3-Dichloropropene	0.424	0.460	0.465	0.455	0.481	0.505	0.465	5.9	
1,1,2-Trichloroethane	0.234	0.247	0.241	0.231	0.244	0.254	0.242	3.5	
2-Hexanone	0.108	0.117	0.110	0.112	0.126	0.138	0.119	9.9	
Dibromochloromethane	0.319	0.337	0.340	0.327	0.347	0.365	0.339	4.7	
1,2-Dibromoethane	0.215	0.229	0.231	0.223	0.237	0.249	0.231	5.2	
Tetrachloroethene	0.538	0.517	0.561	0.523	0.502	0.456	0.516	6.9	
Chlorobenzene	1.086	1.095	1.092	1.053	1.083	1.116	1.087	1.9	
Ethyl Benzene	1.606	1.711	1.753	1.777	1.824	1.891	1.760	5.5	
m/p-Xylenes	0.632	0.675	0.715	0.719	0.734	0.763	0.706	6.5	
o-Xylene	0.588	0.623	0.653	0.670	0.701	0.738	0.662	8.1	
Styrene	0.902	1.026	1.098	1.109	1.166	1.233	1.089	10.5	
Bromoform	0.225	0.242	0.238	0.230	0.244	0.262	0.240	5.4	
Isopropylbenzene	2.967	3.153	3.353	3.317	3.425	3.555	3.295	6.3	
1,1,2,2-Tetrachloroethane	0.530	0.548	0.502	0.499	0.543	0.611	0.539	7.6	
1,3-Dichlorobenzene	1.667	1.698	1.718	1.657	1.701	1.794	1.706	2.9	
1,4-Dichlorobenzene	1.703	1.703	1.694	1.624	1.653	1.732	1.685	2.3	
1,2-Dichlorobenzene	1.485	1.498	1.511	1.446	1.490	1.543	1.496	2.1	
1,2-Dibromo-3-Chloropropane	0.087	0.093	0.083	0.083	0.088	0.096	0.088	6.2	
1,2,4-Trichlorobenzene	0.846	0.867	0.901	0.918	1.007	1.054	0.932	8.7	
1,2,3-Trichlorobenzene	0.719	0.753	0.795	0.793	0.866	0.920	0.808	9.1	
1,2-Dichloroethane-d4	0.455	0.436	0.429	0.392	0.392	0.405	0.418	6.2	
Dibromofluoromethane	0.311	0.314	0.317	0.298	0.299	0.303	0.307	2.6	
Toluene-d8	1.132	1.170	1.177	1.129	1.122	1.135	1.144	2	
4-Bromofluorobenzene	0.401	0.370	0.373	0.365	0.372	0.386	0.378	3.5	

* 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.

Method Path : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\
 Method File : 82Y100725S.M
 Title : SW846 8260
 Last Update : Wed Oct 08 05:12:50 2025
 Response Via : Initial Calibration

Calibration Files

5 =VY023384.D 10 =VY023385.D 20 =VY023386.D 50 =VY023387.D 100 =VY023388.D 150 =VY023389.D

	Compound	5	10	20	50	100	150	Avg	%RSD
1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.397	0.399	0.400	0.321	0.310	0.333	0.360	11.97
3) P	Chloromethane	0.518	0.557	0.512	0.449	0.438	0.467	0.490	9.45
4) C	Vinyl Chloride	0.660	0.684	0.659	0.598	0.597	0.633	0.639	5.59#
5) T	Bromomethane	0.601	0.596	0.548	0.469	0.483	0.518	0.536	10.42
6) T	Chloroethane	0.441	0.462	0.453	0.414	0.413	0.429	0.435	4.67
7) T	Trichlorofluor...	0.884	0.920	0.946	0.842	0.850	0.877	0.887	4.54
8) T	Diethyl Ether	0.240	0.239	0.236	0.215	0.224	0.237	0.232	4.42
9) T	1,1,2-Trichlor...	0.484	0.486	0.479	0.437	0.429	0.445	0.460	5.57
10) T	Methyl Iodide	0.404	0.503	0.518	0.538	0.547	0.562	0.512	11.09
11) T	Tert butyl alc...	0.033	0.037	0.030	0.025	0.029	0.033	0.031	13.08
12) CM	1,1-Dichloroet...	0.449	0.475	0.456	0.427	0.426	0.443	0.446	4.14#
13) T	Acrolein	0.045	0.043	0.042	0.042	0.044	0.048	0.044	5.27
14) T	Allyl chloride	0.540	0.555	0.546	0.526	0.535	0.560	0.544	2.33
15) T	Acrylonitrile	0.088	0.093	0.086	0.082	0.088	0.095	0.089	5.52
16) T	Acetone	0.128	0.117	0.094	0.084	0.085	0.089	0.100	18.67
17) T	Carbon Disulfide	1.291	1.367	1.320	1.225	1.210	1.246	1.277	4.74
18) T	Methyl Acetate	0.244	0.265	0.260	0.245	0.266	0.286	0.261	6.00
19) T	Methyl tert-bu...	1.006	1.075	1.075	1.020	1.091	1.165	1.072	5.30
20) T	Methylene Chlo...	0.625	0.634	0.576	0.458	0.463	0.473	0.538	15.41
21) T	trans-1,2-Dich...	0.494	0.504	0.507	0.470	0.478	0.494	0.491	2.95
22) T	Diisopropyl ether	1.107	1.238	1.255	1.163	1.195	1.257	1.202	4.95
23) T	Vinyl Acetate	0.594	0.646	0.651	0.625	0.667	0.722	0.651	6.65
24) P	1,1-Dichloroet...	0.800	0.835	0.827	0.759	0.765	0.792	0.796	3.90
25) T	2-Butanone	0.133	0.134	0.115	0.105	0.115	0.126	0.122	9.56
26) T	2,2-Dichloropr...	0.752	0.771	0.731	0.705	0.699	0.726	0.731	3.74
27) T	cis-1,2-Dichlo...	0.542	0.584	0.582	0.542	0.563	0.591	0.567	3.81
28) T	Bromochloromet...	0.332	0.323	0.320	0.267	0.270	0.273	0.297	10.22
29) T	Tetrahydrofuran	0.066	0.070	0.067	0.064	0.070	0.078	0.069	7.25
30) C	Chloroform	0.886	0.912	0.901	0.835	0.842	0.874	0.875	3.54#
31) T	Cyclohexane	0.797	0.717	0.697	0.643	0.644	0.676	0.696	8.27
32) T	1,1,1-Trichlor...	0.808	0.814	0.822	0.767	0.764	0.796	0.795	3.08
33) S	1,2-Dichloroet...	0.455	0.436	0.429	0.392	0.392	0.405	0.418	6.21
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...	0.311	0.314	0.317	0.298	0.299	0.303	0.307	2.62
36) T	1,1-Dichloropr...	0.395	0.413	0.413	0.397	0.405	0.417	0.407	2.20
37) T	Ethyl Acetate	0.148	0.162	0.163	0.150	0.164	0.179	0.161	6.94
38) T	Carbon Tetrach...	0.483	0.501	0.504	0.481	0.487	0.503	0.493	2.14
39) T	Methylcyclohexane	0.491	0.486	0.537	0.527	0.554	0.583	0.530	7.03
40) TM	Benzene	1.253	1.302	1.322	1.259	1.281	1.312	1.288	2.22
41) T	Methacrylonitrile	0.082	0.085	0.091	0.080	0.089	0.096	0.087	7.09
42) TM	1,2-Dichloroet...	0.328	0.346	0.343	0.315	0.324	0.338	0.332	3.59
43) T	Isopropyl Acetate	0.297	0.313	0.313	0.302	0.335	0.369	0.321	8.32
44) TM	Trichloroethene	0.380	0.381	0.386	0.367	0.372	0.376	0.377	1.81
45) C	1,2-Dichloropr...	0.276	0.289	0.292	0.274	0.283	0.293	0.285	2.89#
46) T	Dibromomethane	0.172	0.182	0.183	0.173	0.181	0.188	0.180	3.43
47) T	Bromodichlorom...	0.440	0.463	0.459	0.439	0.449	0.468	0.453	2.70
48) T	Methyl methacr...	0.125	0.139	0.149	0.148	0.165	0.181	0.151	12.98
49) T	1,4-Dioxane	0.002	0.002	0.002	0.002	0.002	0.002	0.002	10.06
50) S	Toluene-d8	1.132	1.170	1.177	1.129	1.122	1.135	1.144	2.03
51) T	4-Methyl-2-Pen...	0.141	0.159	0.161	0.159	0.180	0.196	0.166	11.55
52) CM	Toluene	0.777	0.818	0.855	0.827	0.855	0.885	0.836	4.49#
53) T	t-1,3-Dichloro...	0.357	0.380	0.390	0.385	0.415	0.438	0.394	7.24
54) T	cis-1,3-Dichlo...	0.424	0.460	0.465	0.455	0.481	0.505	0.465	5.86
55) T	1,1,2-Trichlor...	0.234	0.247	0.241	0.231	0.244	0.254	0.242	3.52
56) T	Ethyl methacry...	0.219	0.248	0.262	0.279	0.321	0.345	0.279	16.80

Method Path : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\
 Method File : 82Y100725S.M

57)	T	1,3-Dichloropr...	0.361	0.381	0.383	0.374	0.392	0.409	0.383	4.26
58)	T	2-Chloroethyl ...	0.093	0.112	0.112	0.129	0.145	0.159	0.125	19.35
59)	T	2-Hexanone	0.108	0.117	0.110	0.112	0.126	0.138	0.119	9.86
60)	T	Dibromochlorom...	0.319	0.337	0.340	0.327	0.347	0.365	0.339	4.69
61)	T	1,2-Dibromoethane	0.215	0.229	0.231	0.223	0.237	0.249	0.231	5.16
62)	S	4-Bromofluorob...	0.401	0.370	0.373	0.365	0.372	0.386	0.378	3.51
63)	I	Chlorobenzene-d5	-----ISTD-----							
64)	T	Tetrachloroethene	0.538	0.517	0.561	0.523	0.502	0.456	0.516	6.92
65)	PM	Chlorobenzene	1.086	1.095	1.092	1.053	1.083	1.116	1.087	1.89
66)	T	1,1,1,2-Tetrac...	0.388	0.389	0.390	0.373	0.384	0.402	0.388	2.44
67)	C	Ethyl Benzene	1.606	1.711	1.753	1.777	1.824	1.891	1.760	5.54#
68)	T	m/p-Xylenes	0.632	0.675	0.715	0.719	0.734	0.763	0.706	6.54
69)	T	o-Xylene	0.588	0.623	0.653	0.670	0.701	0.738	0.662	8.15
70)	T	Styrene	0.902	1.026	1.098	1.109	1.166	1.233	1.089	10.55
71)	P	Bromoform	0.225	0.242	0.238	0.230	0.244	0.262	0.240	5.41
72)	I	1,4-Dichlorobenzen...	-----ISTD-----							
73)	T	Isopropylbenzene	2.967	3.153	3.353	3.317	3.425	3.555	3.295	6.30
74)	T	N-amyl acetate	0.477	0.535	0.556	0.581	0.665	0.738	0.592	15.95
75)	P	1,1,2,2-Tetrac...	0.530	0.548	0.502	0.499	0.543	0.611	0.539	7.60
76)	T	1,2,3-Trichlor...	0.406	0.399	0.484	0.433	0.455	0.469	0.441	7.76
77)	T	Bromobenzene	0.849	0.880	0.885	0.845	0.877	0.921	0.876	3.14
78)	T	n-propylbenzene	3.373	3.676	3.906	3.883	3.955	4.086	3.813	6.64
79)	T	2-Chlorotoluene	2.095	2.208	2.282	2.227	2.249	2.338	2.233	3.66
80)	T	1,3,5-Trimethy...	2.309	2.557	2.736	2.706	2.772	2.896	2.663	7.70
81)	T	trans-1,4-Dich...	0.171	0.175	0.176	0.169	0.185	0.203	0.180	7.04
82)	T	4-Chlorotoluene	2.173	2.266	2.362	2.276	2.316	2.404	2.300	3.52
83)	T	tert-Butylbenzene	2.199	2.363	2.465	2.522	2.533	2.668	2.458	6.55
84)	T	1,2,4-Trimethy...	2.301	2.552	2.701	2.706	2.782	2.903	2.657	7.86
85)	T	sec-Butylbenzene	3.175	3.388	3.571	3.583	3.664	3.778	3.527	6.08
86)	T	p-Isopropyltol...	2.575	2.804	3.032	3.087	3.183	3.334	3.003	9.09
87)	T	1,3-Dichlorobe...	1.667	1.698	1.718	1.657	1.701	1.794	1.706	2.85
88)	T	1,4-Dichlorobe...	1.703	1.703	1.694	1.624	1.653	1.732	1.685	2.33
89)	T	n-Butylbenzene	2.279	2.428	2.626	2.682	2.778	2.904	2.616	8.76
90)	T	Hexachloroethane	0.667	0.631	0.647	0.625	0.643	0.662	0.646	2.54
91)	T	1,2-Dichlorobe...	1.485	1.498	1.511	1.446	1.490	1.543	1.496	2.13
92)	T	1,2-Dibromo-3-...	0.087	0.093	0.083	0.083	0.088	0.096	0.088	6.18
93)	T	1,2,4-Trichlor...	0.846	0.867	0.901	0.918	1.007	1.054	0.932	8.75
94)	T	Hexachlorobuta...	0.590	0.571	0.572	0.577	0.587	0.590	0.581	1.52
95)	T	Naphthalene	1.206	1.281	1.346	1.466	1.722	1.887	1.485	17.98
96)	T	1,2,3-Trichlor...	0.719	0.753	0.795	0.793	0.866	0.920	0.808	9.14

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023384.D
 Acq On : 07 Oct 2025 09:17
 Operator : SY/MD
 Sample : VSTDICC005
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC005

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:39:47 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.707	168	585717	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.615	114	882488	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	753398	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	378104	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	26670	5.258	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	10.520%#		
35) Dibromofluoromethane	7.634	113	27455	5.126	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	10.260%#		
50) Toluene-d8	10.103	98	99905	4.946	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	9.900%#		
62) 4-Bromofluorobenzene	12.401	95	35355	5.548	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	11.100%#		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.867	85	23245	5.038	ug/l	92
3) Chloromethane	2.074	50	30346	4.627	ug/l	94
4) Vinyl Chloride	2.202	62	38657	4.668	ug/l	95
5) Bromomethane	2.598	94	35214	5.184	ug/l	94
6) Chloroethane	2.732	64	25848	4.597	ug/l	98
7) Trichlorofluoromethane	3.055	101	51797	4.869	ug/l	98
8) Diethyl Ether	3.452	74	14079	5.060	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.818	101	28368	4.989	ug/l	99
10) Methyl Iodide	4.007	142	23692	3.606	ug/l	99
11) Tert butyl alcohol	4.854	59	9774	32.746	ug/l #	80
12) 1,1-Dichloroethene	3.787	96	26290	4.806	ug/l	94
13) Acrolein	3.653	56	13176	26.054	ug/l	100
14) Allyl chloride	4.385	41	31614	4.616	ug/l	98
15) Acrylonitrile	5.055	53	25891	23.754	ug/l	99
16) Acetone	3.866	43	37573	32.940	ug/l	96
17) Carbon Disulfide	4.104	76	75645	4.432	ug/l	99
18) Methyl Acetate	4.391	43	14279	4.926	ug/l	98
19) Methyl tert-butyl Ether	5.116	73	58919	4.600	ug/l	95
20) Methylene Chloride	4.616	84	36598	5.917	ug/l	100
21) trans-1,2-Dichloroethene	5.110	96	28923	4.754	ug/l	99
22) Diisopropyl ether	6.018	45	64833	4.269	ug/l	94
23) Vinyl Acetate	5.964	43	173851	20.824	ug/l	99
24) 1,1-Dichloroethane	5.909	63	46850	4.679	ug/l	100
25) 2-Butanone	6.890	43	38990	27.656	ug/l	93
26) 2,2-Dichloropropane	6.884	77	44062	4.953	ug/l	98
27) cis-1,2-Dichloroethene	6.884	96	31743	4.600	ug/l	98
28) Bromochloromethane	7.244	49	19445	5.006	ug/l	99
29) Tetrahydrofuran	7.262	42	19296	23.059	ug/l	98
30) Chloroform	7.421	83	51887	4.806	ug/l	97
31) Cyclohexane	7.707	56	46675	5.279	ug/l #	79
32) 1,1,1-Trichloroethane	7.616	97	47305	4.881	ug/l	99
36) 1,1-Dichloropropene	7.835	75	34888	4.617	ug/l	98
37) Ethyl Acetate	6.982	43	13082	4.379	ug/l #	93
38) Carbon Tetrachloride	7.817	117	42654	4.859	ug/l	95
39) Methylcyclohexane	9.109	83	43329	4.479	ug/l	98
40) Benzene	8.079	78	110551	4.693	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023384.D
 Acq On : 07 Oct 2025 09:17
 Operator : SY/MD
 Sample : VSTDICC005
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:39:47 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.225	41	7226m	4.658	ug/l	
42) 1,2-Dichloroethane	8.158	62	28940	4.828	ug/l	100
43) Isopropyl Acetate	8.201	43	26166	4.503	ug/l	99
44) Trichloroethene	8.859	130	33564	5.077	ug/l	99
45) 1,2-Dichloropropane	9.140	63	24358	4.595	ug/l	92
46) Dibromomethane	9.231	93	15179	4.682	ug/l	97
47) Bromodichloromethane	9.420	83	38813	4.756	ug/l	93
48) Methyl methacrylate	9.219	41	11038	4.071	ug/l	98
49) 1,4-Dioxane	9.219	88	3255	96.953	ug/l #	86
51) 4-Methyl-2-Pentanone	9.999	43	62279	20.925	ug/l	98
52) Toluene	10.170	92	68550	4.585	ug/l	99
53) t-1,3-Dichloropropene	10.396	75	31477	4.491	ug/l	99
54) cis-1,3-Dichloropropene	9.853	75	37392	4.463	ug/l	96
55) 1,1,2-Trichloroethane	10.572	97	20641	4.786	ug/l	97
56) Ethyl methacrylate	10.438	69	19324	3.891	ug/l	94
57) 1,3-Dichloropropane	10.719	76	31831	4.560	ug/l	96
58) 2-Chloroethyl Vinyl ether	9.713	63	41054m	18.894	ug/l	
59) 2-Hexanone	10.761	43	47778	23.185	ug/l	97
60) Dibromochloromethane	10.908	129	28135	4.783	ug/l	97
61) 1,2-Dibromoethane	11.017	107	18957	4.673	ug/l	97
64) Tetrachloroethene	10.646	164	40570	5.383	ug/l	98
65) Chlorobenzene	11.444	112	81802	4.997	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.517	131	29222	5.075	ug/l	97
67) Ethyl Benzene	11.517	91	121005	4.529	ug/l	99
68) m/p-Xylenes	11.633	106	95176	8.887	ug/l	100
69) o-Xylene	11.956	106	44280	4.466	ug/l	98
70) Styrene	11.969	104	67960	4.152	ug/l	99
71) Bromoform	12.133	173	16988	4.929	ug/l #	99
73) Isopropylbenzene	12.255	105	112194	4.455	ug/l	99
74) N-amyl acetate	12.066	43	18041	3.833	ug/l #	96
75) 1,1,2,2-Tetrachloroethane	12.505	83	20052	4.773	ug/l	100
76) 1,2,3-Trichloropropane	12.554	75	15359m	4.118	ug/l	
77) Bromobenzene	12.529	156	32106	4.967	ug/l	99
78) n-propylbenzene	12.596	91	127521	4.305	ug/l	99
79) 2-Chlorotoluene	12.676	91	79199	4.631	ug/l	99
80) 1,3,5-Trimethylbenzene	12.737	105	87297	4.264	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	6474	4.680	ug/l	98
82) 4-Chlorotoluene	12.779	91	82155	4.600	ug/l	100
83) tert-Butylbenzene	12.999	119	83151	4.457	ug/l	100
84) 1,2,4-Trimethylbenzene	13.042	105	86988	4.294	ug/l	99
85) sec-Butylbenzene	13.176	105	120061	4.443	ug/l	99
86) p-Isopropyltoluene	13.291	119	97377	4.264	ug/l	99
87) 1,3-Dichlorobenzene	13.285	146	63027	4.936	ug/l	100
88) 1,4-Dichlorobenzene	13.365	146	64389	5.085	ug/l	95
89) n-Butylbenzene	13.615	91	86179	4.274	ug/l	99
90) Hexachloroethane	13.877	117	25204	5.084	ug/l	97
91) 1,2-Dichlorobenzene	13.657	146	56167	5.041	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.273	75	3305	4.964	ug/l	95
93) 1,2,4-Trichlorobenzene	14.919	180	32000	4.875	ug/l	99
94) Hexachlorobutadiene	15.023	225	22316	5.456	ug/l	99
95) Naphthalene	15.145	128	45598	4.360	ug/l	99
96) 1,2,3-Trichlorobenzene	15.328	180	27176	4.772	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023384.D
Acq On : 07 Oct 2025 09:17
Operator : SY/MD
Sample : VSTDICC005
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:39:47 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 04:39:16 2025
Response via : Initial Calibration

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

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

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023385.D
 Acq On : 07 Oct 2025 10:02
 Operator : SY/MD
 Sample : VSTDICC010
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC010

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:40:53 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.713	168	559828	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.615	114	847077	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	736152	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	374998	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	48826	10.071	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	20.140%#		
35) Dibromofluoromethane	7.634	113	53279	10.364	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	20.720%#		
50) Toluene-d8	10.109	98	198242	10.225	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	20.460%#		
62) 4-Bromofluorobenzene	12.401	95	62601	10.235	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	20.460%#		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.867	85	44666	10.129	ug/l	97
3) Chloromethane	2.068	50	62413	9.957	ug/l	97
4) Vinyl Chloride	2.202	62	76587	9.676	ug/l	99
5) Bromomethane	2.592	94	66689	10.271	ug/l	90
6) Chloroethane	2.732	64	51757	9.632	ug/l	92
7) Trichlorofluoromethane	3.055	101	102972	10.128	ug/l	99
8) Diethyl Ether	3.458	74	26719	10.047	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.818	101	54405	10.011	ug/l	99
10) Methyl Iodide	4.007	142	56313	8.967	ug/l	99
11) Tert butyl alcohol	4.854	59	20540	71.998	ug/l #	89
12) 1,1-Dichloroethene	3.793	96	53191	10.173	ug/l	98
13) Acrolein	3.653	56	24014	49.681	ug/l	94
14) Allyl chloride	4.385	41	62154	9.494	ug/l	99
15) Acrylonitrile	5.061	53	51937	49.854	ug/l	99
16) Acetone	3.872	43	65410	59.997	ug/l	94
17) Carbon Disulfide	4.104	76	153055	9.382	ug/l	100
18) Methyl Acetate	4.391	43	29725	10.728	ug/l	100
19) Methyl tert-butyl Ether	5.116	73	120347	9.830	ug/l	100
20) Methylene Chloride	4.616	84	71034	12.016	ug/l	96
21) trans-1,2-Dichloroethene	5.116	96	56465	9.710	ug/l	97
22) Diisopropyl ether	6.024	45	138589	9.547	ug/l	98
23) Vinyl Acetate	5.963	43	361478	45.300	ug/l	99
24) 1,1-Dichloroethane	5.915	63	93512	9.772	ug/l	98
25) 2-Butanone	6.890	43	75171	55.784	ug/l	92
26) 2,2-Dichloropropane	6.890	77	86325	10.153	ug/l	99
27) cis-1,2-Dichloroethene	6.896	96	65335	9.905	ug/l	99
28) Bromochloromethane	7.244	49	36132	9.733	ug/l	99
29) Tetrahydrofuran	7.262	42	38990	48.749	ug/l	99
30) Chloroform	7.421	83	102058	9.890	ug/l	99
31) Cyclohexane	7.701	56	80245	9.495	ug/l #	88
32) 1,1,1-Trichloroethane	7.622	97	91186	9.844	ug/l	99
36) 1,1-Dichloropropene	7.835	75	69913	9.639	ug/l	99
37) Ethyl Acetate	6.988	43	27388	9.551	ug/l	96
38) Carbon Tetrachloride	7.817	117	84799	10.065	ug/l	99
39) Methylcyclohexane	9.109	83	82275	8.860	ug/l	95
40) Benzene	8.079	78	220629	9.758	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023385.D
 Acq On : 07 Oct 2025 10:02
 Operator : SY/MD
 Sample : VSTDICC010
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC010

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:40:53 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.225	41	14344	9.632	ug/l #	92
42) 1,2-Dichloroethane	8.158	62	58541	10.174	ug/l	99
43) Isopropyl Acetate	8.201	43	53042	9.510	ug/l	98
44) Trichloroethene	8.865	130	64537	10.171	ug/l	96
45) 1,2-Dichloropropane	9.140	63	49009	9.632	ug/l	100
46) Dibromomethane	9.231	93	30780	9.890	ug/l	99
47) Bromodichloromethane	9.426	83	78392	10.007	ug/l	99
48) Methyl methacrylate	9.225	41	23484	9.023	ug/l	97
49) 1,4-Dioxane	9.231	88	6822	211.693	ug/l	94
51) 4-Methyl-2-Pentanone	9.999	43	134746	47.165	ug/l	99
52) Toluene	10.170	92	138662	9.661	ug/l	100
53) t-1,3-Dichloropropene	10.396	75	64315	9.559	ug/l	96
54) cis-1,3-Dichloropropene	9.853	75	77905	9.687	ug/l	98
55) 1,1,2-Trichloroethane	10.572	97	41881	10.118	ug/l	92
56) Ethyl methacrylate	10.438	69	42096	8.830	ug/l	98
57) 1,3-Dichloropropane	10.719	76	64537	9.633	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.713	63	94970m	45.535	ug/l	
59) 2-Hexanone	10.761	43	99175	50.138	ug/l	96
60) Dibromochloromethane	10.908	129	57151	10.123	ug/l	97
61) 1,2-Dibromoethane	11.011	107	38861	9.979	ug/l	99
64) Tetrachloroethene	10.646	164	76110	10.335	ug/l	98
65) Chlorobenzene	11.438	112	161155	10.074	ug/l	96
66) 1,1,1,2-Tetrachloroethane	11.517	131	57233	10.173	ug/l	98
67) Ethyl Benzene	11.517	91	251958	9.651	ug/l	98
68) m/p-Xylenes	11.627	106	198866	19.004	ug/l	99
69) o-Xylene	11.950	106	91710	9.467	ug/l	100
70) Styrene	11.969	104	151094	9.446	ug/l	99
71) Bromoform	12.133	173	35681	10.595	ug/l #	94
73) Isopropylbenzene	12.249	105	236489	9.467	ug/l	99
74) N-amyl acetate	12.066	43	40098	8.590	ug/l	97
75) 1,1,2,2-Tetrachloroethane	12.505	83	41130	9.871	ug/l	97
76) 1,2,3-Trichloropropane	12.554	75	29944m	8.095	ug/l	
77) Bromobenzene	12.529	156	66002	10.295	ug/l	99
78) n-propylbenzene	12.590	91	275671	9.384	ug/l	100
79) 2-Chlorotoluene	12.676	91	165582	9.762	ug/l	100
80) 1,3,5-Trimethylbenzene	12.731	105	191799	9.445	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.298	75	13110	9.556	ug/l	99
82) 4-Chlorotoluene	12.773	91	169968	9.595	ug/l	100
83) tert-Butylbenzene	12.993	119	177250	9.579	ug/l	99
84) 1,2,4-Trimethylbenzene	13.041	105	191423	9.528	ug/l	98
85) sec-Butylbenzene	13.170	105	254134	9.483	ug/l	100
86) p-Isopropyltoluene	13.285	119	210320	9.287	ug/l	100
87) 1,3-Dichlorobenzene	13.285	146	127377	10.058	ug/l	99
88) 1,4-Dichlorobenzene	13.365	146	127757	10.172	ug/l	98
89) n-Butylbenzene	13.615	91	182116	9.107	ug/l	98
90) Hexachloroethane	13.877	117	47355	9.630	ug/l	97
91) 1,2-Dichlorobenzene	13.657	146	112325	10.165	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.273	75	7005	10.608	ug/l	94
93) 1,2,4-Trichlorobenzene	14.919	180	65050	9.992	ug/l	98
94) Hexachlorobutadiene	15.023	225	42813	10.554	ug/l	97
95) Naphthalene	15.139	128	96092	9.264	ug/l	99
96) 1,2,3-Trichlorobenzene	15.328	180	56499	10.004	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023385.D
Acq On : 07 Oct 2025 10:02
Operator : SY/MD
Sample : VSTDICC010
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:40:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 04:39:16 2025
Response via : Initial Calibration

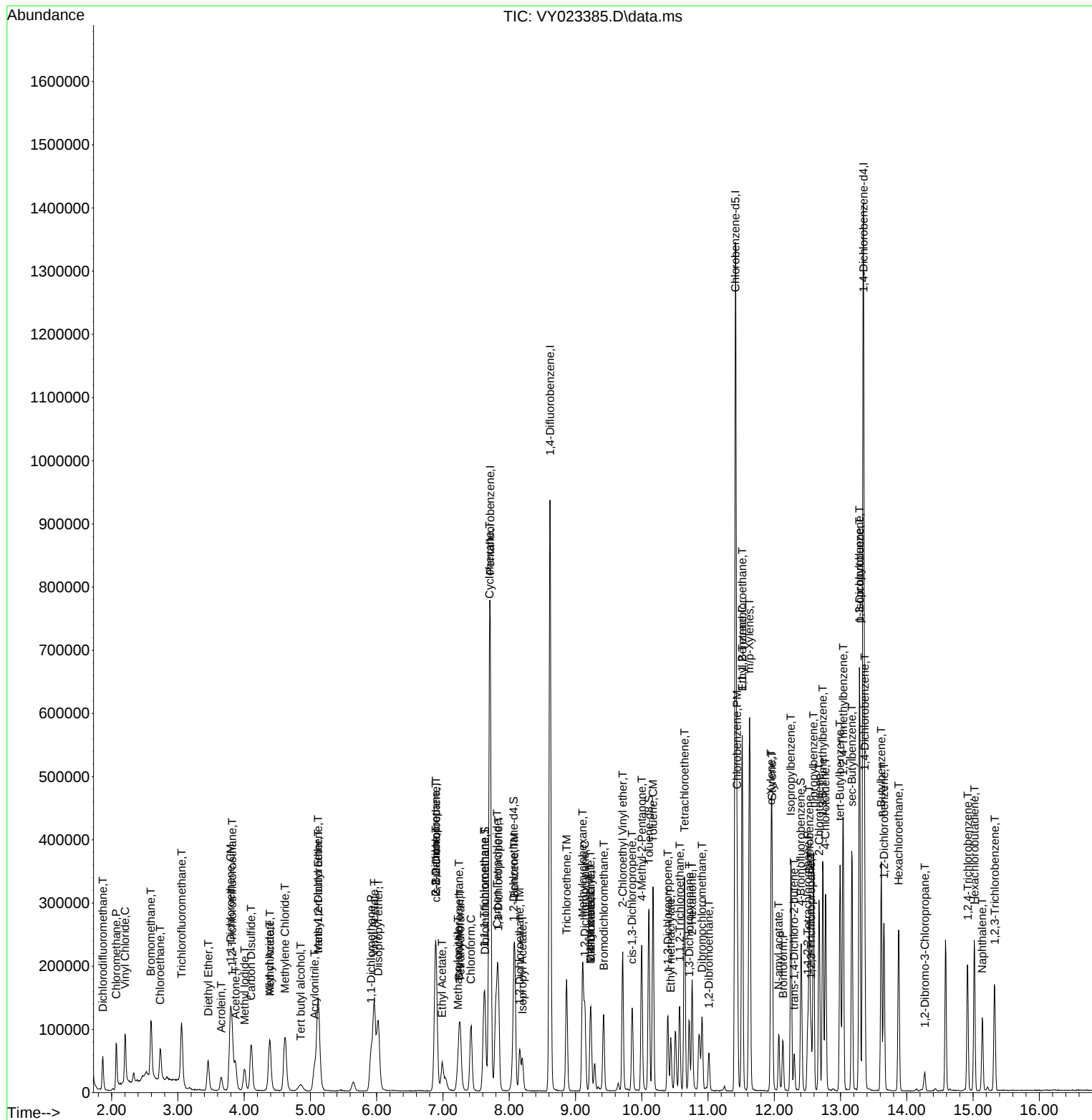
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

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

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023386.D
 Acq On : 07 Oct 2025 11:24
 Operator : SY/MD
 Sample : VSTDICC020
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC020

Manual Integrations APPROVED

Reviewed By : Semsettin Yesilyurt 10/10/2025
 Supervised By : Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:41:57 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	574363	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.615	114	851961	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	746872	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	382604	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.061	65	98481	19.798	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	39.600%#
35) Dibromofluoromethane	7.634	113	108034	20.895	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	41.800%#
50) Toluene-d8	10.103	98	401067	20.568	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	41.140%#
62) 4-Bromofluorobenzene	12.401	95	127216	20.680	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	41.360%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.867	85	91924	20.318	ug/l	98
3) Chloromethane	2.074	50	117585	18.284	ug/l	100
4) Vinyl Chloride	2.202	62	151460	18.652	ug/l	99
5) Bromomethane	2.586	94	125948	18.907	ug/l	97
6) Chloroethane	2.732	64	103973	18.859	ug/l	94
7) Trichlorofluoromethane	3.049	101	217452	20.846	ug/l	99
8) Diethyl Ether	3.452	74	54124	19.837	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.811	101	109936	19.718	ug/l	99
10) Methyl Iodide	4.007	142	119083	18.482	ug/l	99
11) Tert butyl alcohol	4.854	59	34346	117.345	ug/l	98
12) 1,1-Dichloroethene	3.787	96	104778	19.531	ug/l	98
13) Acrolein	3.653	56	48115	97.023	ug/l	98
14) Allyl chloride	4.384	41	125424	18.674	ug/l	98
15) Acrylonitrile	5.055	53	99018	92.641	ug/l	100
16) Acetone	3.866	43	108209	96.742	ug/l	96
17) Carbon Disulfide	4.104	76	303284	18.121	ug/l	99
18) Methyl Acetate	4.384	43	59704	21.002	ug/l	97
19) Methyl tert-butyl Ether	5.116	73	247030	19.667	ug/l	97
20) Methylene Chloride	4.616	84	132229	21.801	ug/l	98
21) trans-1,2-Dichloroethene	5.110	96	116410	19.512	ug/l	95
22) Diisopropyl ether	6.018	45	288429	19.366	ug/l	98
23) Vinyl Acetate	5.957	43	748048	91.373	ug/l	99
24) 1,1-Dichloroethane	5.915	63	190012	19.354	ug/l	99
25) 2-Butanone	6.896	43	132159	95.593	ug/l	93
26) 2,2-Dichloropropane	6.884	77	167903	19.247	ug/l	99
27) cis-1,2-Dichloroethene	6.890	96	133634	19.747	ug/l	99
28) Bromochloromethane	7.244	49	73407	19.273	ug/l	98
29) Tetrahydrofuran	7.262	42	76502	93.229	ug/l	99
30) Chloroform	7.421	83	207096	19.562	ug/l	100
31) Cyclohexane	7.701	56	160159	18.472	ug/l	97
32) 1,1,1-Trichloroethane	7.616	97	188861	19.873	ug/l	100
36) 1,1-Dichloropropene	7.835	75	140912	19.317	ug/l	100
37) Ethyl Acetate	6.982	43	55705	19.315	ug/l	98
38) Carbon Tetrachloride	7.817	117	171925	20.289	ug/l	99
39) Methylcyclohexane	9.109	83	182831	19.576	ug/l	99
40) Benzene	8.079	78	450471	19.809	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023386.D
 Acq On : 07 Oct 2025 11:24
 Operator : SY/MD
 Sample : VSTDICC020
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDICC020

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:41:57 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M

Quant Title : SW846 8260

QLast Update : Wed Oct 08 04:39:16 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.225	41	31129m	20.783	ug/l	
42) 1,2-Dichloroethane	8.158	62	116941	20.206	ug/l	99
43) Isopropyl Acetate	8.195	43	106595	19.002	ug/l #	87
44) Trichloroethene	8.865	130	131459	20.598	ug/l	98
45) 1,2-Dichloropropane	9.140	63	99363	19.417	ug/l	98
46) Dibromomethane	9.231	93	62277	19.896	ug/l	98
47) Bromodichloromethane	9.420	83	156426	19.854	ug/l	98
48) Methyl methacrylate	9.219	41	50661	19.352	ug/l	99
49) 1,4-Dioxane	9.225	88	13636	420.712	ug/l	99
51) 4-Methyl-2-Pentanone	9.999	43	274059	95.378	ug/l	100
52) Toluene	10.170	92	291453	20.191	ug/l	100
53) t-1,3-Dichloropropene	10.390	75	132848	19.632	ug/l	99
54) cis-1,3-Dichloropropene	9.853	75	158580	19.606	ug/l	95
55) 1,1,2-Trichloroethane	10.572	97	82183	19.740	ug/l	96
56) Ethyl methacrylate	10.438	69	89244	18.613	ug/l	99
57) 1,3-Dichloropropane	10.719	76	130650	19.389	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.713	63	190850m	90.982	ug/l	
59) 2-Hexanone	10.761	43	187387	94.190	ug/l	99
60) Dibromochloromethane	10.908	129	115907	20.412	ug/l	100
61) 1,2-Dibromoethane	11.011	107	78579	20.062	ug/l	100
64) Tetrachloroethene	10.646	164	167648	22.438	ug/l	97
65) Chlorobenzene	11.438	112	326360	20.109	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.517	131	116412	20.396	ug/l	99
67) Ethyl Benzene	11.517	91	523606	19.768	ug/l	99
68) m/p-Xylenes	11.627	106	426913	40.211	ug/l	100
69) o-Xylene	11.956	106	195021	19.843	ug/l	96
70) Styrene	11.968	104	327934	20.208	ug/l	99
71) Bromoform	12.133	173	71119	20.814	ug/l #	99
73) Isopropylbenzene	12.255	105	513183	20.136	ug/l	99
74) N-amyl acetate	12.072	43	85063	17.860	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.505	83	76821	18.069	ug/l	99
76) 1,2,3-Trichloropropane	12.554	75	74100m	19.634	ug/l	
77) Bromobenzene	12.529	156	135402	20.700	ug/l	98
78) n-propylbenzene	12.596	91	597829	19.945	ug/l	100
79) 2-Chlorotoluene	12.676	91	349203	20.179	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	418684	20.208	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	26922	19.234	ug/l	98
82) 4-Chlorotoluene	12.773	91	361458	20.000	ug/l	99
83) tert-Butylbenzene	12.993	119	377277	19.983	ug/l	99
84) 1,2,4-Trimethylbenzene	13.041	105	413292	20.162	ug/l	100
85) sec-Butylbenzene	13.176	105	546582	19.990	ug/l	100
86) p-Isopropyltoluene	13.291	119	464005	20.081	ug/l	100
87) 1,3-Dichlorobenzene	13.285	146	262901	20.347	ug/l	99
88) 1,4-Dichlorobenzene	13.365	146	259217	20.230	ug/l	99
89) n-Butylbenzene	13.615	91	401893	19.697	ug/l	98
90) Hexachloroethane	13.877	117	98983	19.730	ug/l	97
91) 1,2-Dichlorobenzene	13.657	146	231199	20.507	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	12668	18.802	ug/l	99
93) 1,2,4-Trichlorobenzene	14.919	180	137963	20.770	ug/l	99
94) Hexachlorobutadiene	15.023	225	87575	21.159	ug/l	99
95) Naphthalene	15.145	128	206017	19.467	ug/l	100
96) 1,2,3-Trichlorobenzene	15.328	180	121656	21.113	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023386.D
Acq On : 07 Oct 2025 11:24
Operator : SY/MD
Sample : VSTDICC020
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:41:57 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 04:39:16 2025
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023386.D
 Acq On : 07 Oct 2025 11:24
 Operator : SY/MD
 Sample : VSTDIC020
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDIC020

Quant Time: Oct 08 04:41:57 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M

Quant Title : SW846 8260

QLast Update : Wed Oct 08 04:39:16 2025

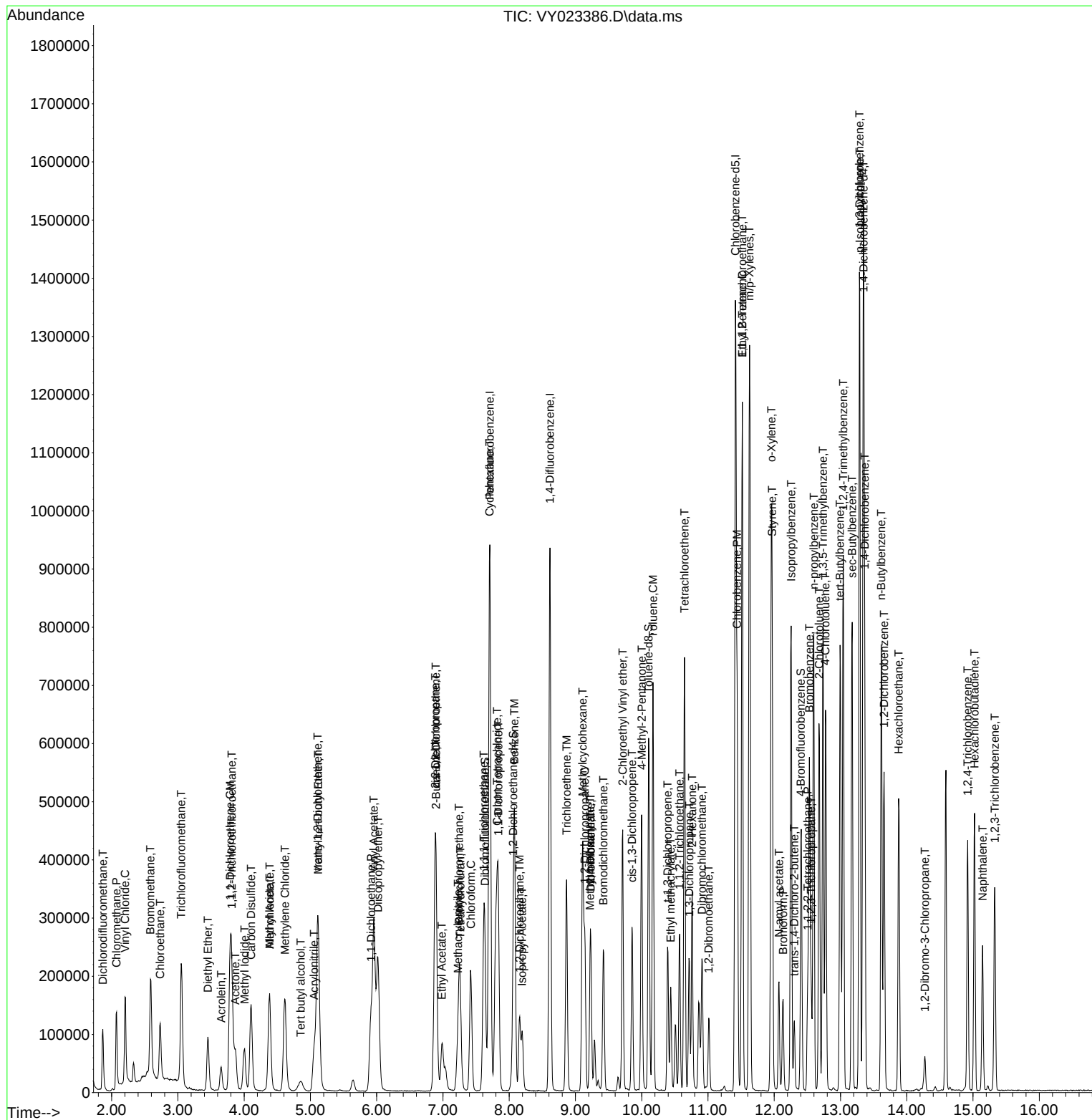
Response via : Initial Calibration

Manual Integrations

APPROVED

Reviewed By : Semsettin Yesilyurt 10/10/2025

Supervised By : Mahesh Dadoda 10/10/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023387.D
 Acq On : 07 Oct 2025 11:47
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:43:02 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.707	168	590340	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	858767	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	749869	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	392169	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	231295	45.240	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	90.480%		
35) Dibromofluoromethane	7.634	113	256331	49.185	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	98.360%		
50) Toluene-d8	10.103	98	969649	49.334	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	98.660%		
62) 4-Bromofluorobenzene	12.402	95	313426	50.546	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	101.100%		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.867	85	189467	40.745	ug/l	100
3) Chloromethane	2.068	50	265142	40.113	ug/l	100
4) Vinyl Chloride	2.202	62	352993	42.293	ug/l	100
5) Bromomethane	2.592	94	277005	40.458	ug/l	100
6) Chloroethane	2.733	64	244551	43.157	ug/l	100
7) Trichlorofluoromethane	3.056	101	496981	46.354	ug/l	100
8) Diethyl Ether	3.452	74	126634	45.158	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.812	101	258100	45.039	ug/l	100
10) Methyl Iodide	4.001	142	317731	47.979	ug/l	100
11) Tert butyl alcohol	4.860	59	73642	244.793	ug/l	100
12) 1,1-Dichloroethene	3.787	96	252190	45.738	ug/l	100
13) Acrolein	3.647	56	123642	242.575	ug/l	100
14) Allyl chloride	4.379	41	310569	44.989	ug/l	100
15) Acrylonitrile	5.055	53	240668	219.075	ug/l	100
16) Acetone	3.866	43	247122	214.955	ug/l	100
17) Carbon Disulfide	4.104	76	722982	42.028	ug/l	100
18) Methyl Acetate	4.385	43	144816	49.563	ug/l	100
19) Methyl tert-butyl Ether	5.116	73	601934	46.626	ug/l	100
20) Methylene Chloride	4.616	84	270612	43.409	ug/l	100
21) trans-1,2-Dichloroethene	5.110	96	277516	45.256	ug/l	100
22) Diisopropyl ether	6.019	45	686481	44.844	ug/l	100
23) Vinyl Acetate	5.958	43	1843784	219.119	ug/l	100
24) 1,1-Dichloroethane	5.915	63	448267	44.423	ug/l	100
25) 2-Butanone	6.890	43	310237	218.327	ug/l	100
26) 2,2-Dichloropropane	6.884	77	416391	46.440	ug/l	100
27) cis-1,2-Dichloroethene	6.890	96	320028	46.010	ug/l	100
28) Bromochloromethane	7.244	49	157414	40.211	ug/l	100
29) Tetrahydrofuran	7.262	42	187787	222.653	ug/l	100
30) Chloroform	7.421	83	493098	45.316	ug/l	100
31) Cyclohexane	7.701	56	379644	42.602	ug/l	100
32) 1,1,1-Trichloroethane	7.616	97	452713	46.347	ug/l	100
36) 1,1-Dichloropropene	7.835	75	341353	46.424	ug/l	100
37) Ethyl Acetate	6.982	43	129053	44.394	ug/l	100
38) Carbon Tetrachloride	7.817	117	413187	48.374	ug/l	100
39) Methylcyclohexane	9.109	83	452959	48.113	ug/l	100
40) Benzene	8.079	78	1080883	47.154	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023387.D
 Acq On : 07 Oct 2025 11:47
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:43:02 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.220	41	68542	45.399	ug/l	100
42) 1,2-Dichloroethane	8.152	62	270387	46.350	ug/l	100
43) Isopropyl Acetate	8.195	43	259041	45.811	ug/l	100
44) Trichloroethene	8.866	130	315104	48.982	ug/l	100
45) 1,2-Dichloropropane	9.140	63	234978	45.555	ug/l	100
46) Dibromomethane	9.231	93	148914	47.198	ug/l	100
47) Bromodichloromethane	9.420	83	377084	47.482	ug/l	100
48) Methyl methacrylate	9.219	41	126732	48.027	ug/l	100
49) 1,4-Dioxane	9.225	88	34053	1042.312	ug/l	100
51) 4-Methyl-2-Pentanone	9.993	43	682879	235.772	ug/l	100
52) Toluene	10.170	92	710404	48.824	ug/l	100
53) t-1,3-Dichloropropene	10.390	75	330392	48.438	ug/l	100
54) cis-1,3-Dichloropropene	9.853	75	390619	47.910	ug/l	100
55) 1,1,2-Trichloroethane	10.573	97	198478	47.296	ug/l	100
56) Ethyl methacrylate	10.438	69	239407	49.535	ug/l	100
57) 1,3-Dichloropropane	10.713	76	321276	47.301	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.707	63	553816	261.921	ug/l	100
59) 2-Hexanone	10.756	43	479606	239.162	ug/l	100
60) Dibromochloromethane	10.908	129	281047	49.103	ug/l	100
61) 1,2-Dibromoethane	11.012	107	191356	48.468	ug/l	100
64) Tetrachloroethene	10.646	164	392056	52.264	ug/l	100
65) Chlorobenzene	11.438	112	789650	48.460	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.511	131	279583	48.788	ug/l	100
67) Ethyl Benzene	11.518	91	1332350	50.099	ug/l	100
68) m/p-Xylenes	11.627	106	1077583	101.092	ug/l	100
69) o-Xylene	11.950	106	502722	50.946	ug/l	100
70) Styrene	11.969	104	831908	51.059	ug/l	100
71) Bromoform	12.127	173	172315	50.229	ug/l #	100
73) Isopropylbenzene	12.249	105	1301009	49.803	ug/l	100
74) N-amyl acetate	12.066	43	227684	46.640	ug/l	100
75) 1,1,2,2-Tetrachloroethane	12.505	83	195565	44.878	ug/l	100
76) 1,2,3-Trichloropropane	12.554	75	169814m	43.898	ug/l	100
77) Bromobenzene	12.530	156	331331	49.419	ug/l	100
78) n-propylbenzene	12.591	91	1522965	49.572	ug/l	100
79) 2-Chlorotoluene	12.676	91	873335	49.235	ug/l	100
80) 1,3,5-Trimethylbenzene	12.731	105	1061112	49.966	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.298	75	66299	46.212	ug/l	100
82) 4-Chlorotoluene	12.773	91	892764	48.192	ug/l	100
83) tert-Butylbenzene	12.993	119	988936	51.104	ug/l	100
84) 1,2,4-Trimethylbenzene	13.042	105	1061159	50.505	ug/l	100
85) sec-Butylbenzene	13.170	105	1405003	50.133	ug/l	100
86) p-Isopropyltoluene	13.286	119	1210644	51.115	ug/l	100
87) 1,3-Dichlorobenzene	13.286	146	649899	49.072	ug/l	100
88) 1,4-Dichlorobenzene	13.365	146	636694	48.476	ug/l	100
89) n-Butylbenzene	13.615	91	1051949	50.299	ug/l	100
90) Hexachloroethane	13.877	117	245108	47.664	ug/l	100
91) 1,2-Dichlorobenzene	13.657	146	567114	49.075	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	32585	47.184	ug/l	100
93) 1,2,4-Trichlorobenzene	14.919	180	359833	52.852	ug/l	100
94) Hexachlorobutadiene	15.017	225	226316	53.346	ug/l	100
95) Naphthalene	15.139	128	575044	53.012	ug/l	100
96) 1,2,3-Trichlorobenzene	15.328	180	310831	52.628	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023387.D
Acq On : 07 Oct 2025 11:47
Operator : SY/MD
Sample : VSTDICCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Quant Time: Oct 08 04:43:02 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 04:39:16 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025

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

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

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023388.D
 Acq On : 07 Oct 2025 12:09
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC100

Quant Time: Oct 08 04:44:07 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : Semsettin Yesilyurt 10/10/2025
 Supervised By : Mahesh Dadoda 10/10/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.707	168	595770	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	855682	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	764361	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.340	152	400285	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	467005	90.510	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 181.020%#			
35) Dibromofluoromethane	7.634	113	511478	98.497	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 197.000%#			
50) Toluene-d8	10.103	98	1919872	98.031	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 196.060%#			
62) 4-Bromofluorobenzene	12.401	95	636435	103.007	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 206.020%#			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.867	85	368985	78.627	ug/l	96
3) Chloromethane	2.068	50	521606	78.195	ug/l	96
4) Vinyl Chloride	2.202	62	711235	84.438	ug/l	100
5) Bromomethane	2.586	94	574957	83.210	ug/l	99
6) Chloroethane	2.732	64	491625	85.968	ug/l	99
7) Trichlorofluoromethane	3.049	101	1012851	93.610	ug/l	99
8) Diethyl Ether	3.452	74	266779	94.266	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.812	101	511482	88.441	ug/l	100
10) Methyl Iodide	4.001	142	651575	97.495	ug/l	99
11) Tert butyl alcohol	4.866	59	172718	568.898	ug/l	99
12) 1,1-Dichloroethene	3.787	96	508059	91.303	ug/l	96
13) Acrolein	3.647	56	262636	510.573	ug/l	99
14) Allyl chloride	4.378	41	637073	91.446	ug/l	99
15) Acrylonitrile	5.055	53	522511	471.296	ug/l	100
16) Acetone	3.866	43	504700	435.004	ug/l	98
17) Carbon Disulfide	4.104	76	1442005	83.061	ug/l	99
18) Methyl Acetate	4.385	43	316911	107.474	ug/l	98
19) Methyl tert-butyl Ether	5.116	73	1300206	99.797	ug/l	97
20) Methylene Chloride	4.610	84	552018	87.742	ug/l	98
21) trans-1,2-Dichloroethene	5.110	96	569334	91.999	ug/l	96
22) Diisopropyl ether	6.018	45	1423347	92.133	ug/l	97
23) Vinyl Acetate	5.957	43	3975052	468.098	ug/l	99
24) 1,1-Dichloroethane	5.915	63	911619	89.517	ug/l	99
25) 2-Butanone	6.890	43	685693	478.154	ug/l	99
26) 2,2-Dichloropropane	6.884	77	833452	92.108	ug/l	98
27) cis-1,2-Dichloroethene	6.890	96	670773	95.557	ug/l	98
28) Bromochloromethane	7.244	49	321657	81.418	ug/l	99
29) Tetrahydrofuran	7.262	42	415867	488.587	ug/l	99
30) Chloroform	7.421	83	1003722	91.401	ug/l	100
31) Cyclohexane	7.701	56	767083	85.293	ug/l	98
32) 1,1,1-Trichloroethane	7.616	97	910837	92.399	ug/l	100
36) 1,1-Dichloropropene	7.835	75	692477	94.516	ug/l	99
37) Ethyl Acetate	6.982	43	280560	96.859	ug/l	98
38) Carbon Tetrachloride	7.817	117	833170	97.894	ug/l	99
39) Methylcyclohexane	9.109	83	947664	101.024	ug/l	99
40) Benzene	8.079	78	2192645	96.000	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023388.D
 Acq On : 07 Oct 2025 12:09
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:44:07 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M

Quant Title : SW846 8260

QLast Update : Wed Oct 08 04:39:16 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.219	41	152239	101.200	ug/l	98
42) 1,2-Dichloroethane	8.158	62	554810	95.449	ug/l	100
43) Isopropyl Acetate	8.195	43	573653	101.815	ug/l	99
44) Trichloroethene	8.866	130	636149	99.245	ug/l	100
45) 1,2-Dichloropropane	9.140	63	485084	94.381	ug/l	99
46) Dibromomethane	9.231	93	309964	98.596	ug/l	99
47) Bromodichloromethane	9.420	83	769238	97.210	ug/l	99
48) Methyl methacrylate	9.219	41	282582	107.476	ug/l	99
49) 1,4-Dioxane	9.225	88	77305	2374.722	ug/l	99
51) 4-Methyl-2-Pentanone	9.993	43	1539324	533.386	ug/l	100
52) Toluene	10.170	92	1462927	100.905	ug/l	99
53) t-1,3-Dichloropropene	10.390	75	710475	104.537	ug/l	98
54) cis-1,3-Dichloropropene	9.853	75	822967	101.302	ug/l	98
55) 1,1,2-Trichloroethane	10.573	97	417623	99.875	ug/l	96
56) Ethyl methacrylate	10.438	69	549366	114.077	ug/l	99
57) 1,3-Dichloropropane	10.713	76	670961	99.140	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.707	63	1240361	588.731	ug/l	99
59) 2-Hexanone	10.755	43	1081568	541.284	ug/l	99
60) Dibromochloromethane	10.908	129	593878	104.133	ug/l	100
61) 1,2-Dibromoethane	11.011	107	406293	103.280	ug/l	99
64) Tetrachloroethene	10.646	164	767753	100.406	ug/l	99
65) Chlorobenzene	11.438	112	1655143	99.649	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.511	131	586878	100.470	ug/l	99
67) Ethyl Benzene	11.517	91	2788252	102.856	ug/l	98
68) m/p-Xylenes	11.627	106	2243033	206.437	ug/l	100
69) o-Xylene	11.950	106	1072335	106.611	ug/l	99
70) Styrene	11.969	104	1782757	107.344	ug/l	100
71) Bromoform	12.127	173	373208	106.727	ug/l #	100
73) Isopropylbenzene	12.249	105	2741698	102.825	ug/l	100
74) N-amyl acetate	12.066	43	532255	106.818	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.505	83	434720	97.735	ug/l	98
76) 1,2,3-Trichloropropane	12.554	75	364622m	92.345	ug/l	
77) Bromobenzene	12.529	156	701741	102.545	ug/l	100
78) n-propylbenzene	12.590	91	3165894	100.958	ug/l	99
79) 2-Chlorotoluene	12.676	91	1800124	99.426	ug/l	100
80) 1,3,5-Trimethylbenzene	12.731	105	2219080	102.374	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.298	75	148302	101.273	ug/l	98
82) 4-Chlorotoluene	12.773	91	1854165	98.060	ug/l	99
83) tert-Butylbenzene	12.993	119	2028198	102.684	ug/l	97
84) 1,2,4-Trimethylbenzene	13.042	105	2227197	103.853	ug/l	100
85) sec-Butylbenzene	13.170	105	2932949	102.530	ug/l	100
86) p-Isopropyltoluene	13.285	119	2548220	105.408	ug/l	100
87) 1,3-Dichlorobenzene	13.285	146	1361716	100.735	ug/l	100
88) 1,4-Dichlorobenzene	13.365	146	1323618	98.734	ug/l	100
89) n-Butylbenzene	13.615	91	2223744	104.174	ug/l	99
90) Hexachloroethane	13.877	117	514746	98.069	ug/l	99
91) 1,2-Dichlorobenzene	13.657	146	1193043	101.146	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.267	75	70107	99.458	ug/l	94
93) 1,2,4-Trichlorobenzene	14.919	180	806328	116.031	ug/l	99
94) Hexachlorobutadiene	15.017	225	470072	108.557	ug/l	99
95) Naphthalene	15.139	128	1378291	124.485	ug/l	100
96) 1,2,3-Trichlorobenzene	15.322	180	693477	115.034	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023388.D
Acq On : 07 Oct 2025 12:09
Operator : SY/MD
Sample : VSTDICC100
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC100

Quant Time: Oct 08 04:44:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 04:39:16 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025

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

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

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023389.D
 Acq On : 07 Oct 2025 12:32
 Operator : SY/MD
 Sample : VSTDICC150
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC150

Quant Time: Oct 08 04:45:15 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 04:39:16 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.707	168	588489	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	855488	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	765357	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	402368	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	714730	140.236	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 280.480%#			
35) Dibromofluoromethane	7.634	113	778632	149.977	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 299.960%#			
50) Toluene-d8	10.103	98	2912319	148.741	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 297.480%#			
62) 4-Bromofluorobenzene	12.402	95	990964	160.423	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 320.840%#			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.867	85	587619	126.766	ug/l	97
3) Chloromethane	2.068	50	825167	125.233	ug/l	100
4) Vinyl Chloride	2.208	62	1118134	134.387	ug/l	100
5) Bromomethane	2.580	94	915389	134.118	ug/l	98
6) Chloroethane	2.726	64	756912	133.994	ug/l	99
7) Trichlorofluoromethane	3.050	101	1549160	144.948	ug/l	100
8) Diethyl Ether	3.452	74	418615	149.747	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.812	101	786278	137.639	ug/l	99
10) Methyl Iodide	4.007	142	992925	150.409	ug/l	99
11) Tert butyl alcohol	4.866	59	288878	963.279	ug/l	99
12) 1,1-Dichloroethene	3.787	96	781235	142.133	ug/l	97
13) Acrolein	3.653	56	423418	833.323	ug/l	100
14) Allyl chloride	4.385	41	988378	143.628	ug/l	99
15) Acrylonitrile	5.055	53	841857	768.735	ug/l	99
16) Acetone	3.866	43	789668	689.040	ug/l	99
17) Carbon Disulfide	4.104	76	2199339	128.252	ug/l	100
18) Methyl Acetate	4.385	43	505344	173.497	ug/l	99
19) Methyl tert-butyl Ether	5.116	73	2056533	159.802	ug/l	97
20) Methylene Chloride	4.616	84	835005	134.365	ug/l	98
21) trans-1,2-Dichloroethene	5.116	96	871380	142.549	ug/l	98
22) Diisopropyl ether	6.019	45	2218430	145.375	ug/l	99
23) Vinyl Acetate	5.958	43	6377047	760.246	ug/l	99
24) 1,1-Dichloroethane	5.915	63	1398477	139.024	ug/l	98
25) 2-Butanone	6.890	43	1116343	788.091	ug/l	97
26) 2,2-Dichloropropane	6.884	77	1281633	143.391	ug/l	99
27) cis-1,2-Dichloroethene	6.890	96	1043574	150.505	ug/l	98
28) Bromochloromethane	7.244	49	482210	123.567	ug/l	99
29) Tetrahydrofuran	7.262	42	687719	817.972	ug/l	100
30) Chloroform	7.421	83	1542715	142.221	ug/l	99
31) Cyclohexane	7.701	56	1192778	134.268	ug/l	98
32) 1,1,1-Trichloroethane	7.616	97	1405131	144.305	ug/l	100
36) 1,1-Dichloropropene	7.835	75	1069665	146.031	ug/l	100
37) Ethyl Acetate	6.982	43	460027	158.853	ug/l	98
38) Carbon Tetrachloride	7.817	117	1290353	151.646	ug/l	99
39) Methylcyclohexane	9.109	83	1496612	159.580	ug/l	99
40) Benzene	8.079	78	3366812	147.442	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023389.D
 Acq On : 07 Oct 2025 12:32
 Operator : SY/MD
 Sample : VSTDICC150
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDICC150

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 04:45:15 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M

Quant Title : SW846 8260

QLast Update : Wed Oct 08 04:39:16 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.220	41	246974	164.212	ug/l	98
42) 1,2-Dichloroethane	8.158	62	866250	149.063	ug/l	100
43) Isopropyl Acetate	8.195	43	946087	167.955	ug/l	100
44) Trichloroethene	8.866	130	966011	150.740	ug/l	99
45) 1,2-Dichloropropane	9.140	63	752286	146.403	ug/l	99
46) Dibromomethane	9.231	93	483702	153.895	ug/l	99
47) Bromodichloromethane	9.420	83	1202247	151.965	ug/l	98
48) Methyl methacrylate	9.219	41	463614	176.368	ug/l	100
49) 1,4-Dioxane	9.225	88	123991	3809.726	ug/l	97
51) 4-Methyl-2-Pentanone	9.993	43	2516107	872.045	ug/l	100
52) Toluene	10.170	92	2272574	156.786	ug/l	98
53) t-1,3-Dichloropropene	10.390	75	1123644	165.367	ug/l	100
54) cis-1,3-Dichloropropene	9.853	75	1296713	159.654	ug/l	99
55) 1,1,2-Trichloroethane	10.573	97	652242	156.020	ug/l	96
56) Ethyl methacrylate	10.438	69	886127	184.048	ug/l	100
57) 1,3-Dichloropropane	10.713	76	1049593	155.122	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.707	63	2040136	968.559	ug/l	100
59) 2-Hexanone	10.755	43	1776032	889.038	ug/l	99
60) Dibromochloromethane	10.908	129	935577	164.084	ug/l	99
61) 1,2-Dibromoethane	11.012	107	639895	162.699	ug/l	99
64) Tetrachloroethene	10.646	164	1046931	136.739	ug/l	98
65) Chlorobenzene	11.438	112	2563176	154.117	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.511	131	923367	157.870	ug/l	99
67) Ethyl Benzene	11.518	91	4341801	159.957	ug/l	97
68) m/p-Xylenes	11.627	106	3502137	321.899	ug/l	99
69) o-Xylene	11.950	106	1694987	168.295	ug/l	98
70) Styrene	11.969	104	2830398	170.203	ug/l	99
71) Bromoform	12.127	173	602644	172.115	ug/l #	99
73) Isopropylbenzene	12.249	105	4290662	160.084	ug/l	100
74) N-amyl acetate	12.066	43	890882	177.866	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.505	83	737773	165.010	ug/l	99
76) 1,2,3-Trichloropropane	12.554	75	565754m	142.542	ug/l	
77) Bromobenzene	12.530	156	1111318	161.555	ug/l	100
78) n-propylbenzene	12.591	91	4932015	156.465	ug/l	99
79) 2-Chlorotoluene	12.676	91	2822049	155.063	ug/l	100
80) 1,3,5-Trimethylbenzene	12.731	105	3496249	160.460	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.298	75	245190	166.570	ug/l	98
82) 4-Chlorotoluene	12.773	91	2902371	152.701	ug/l	99
83) tert-Butylbenzene	12.993	119	3220384	162.197	ug/l	97
84) 1,2,4-Trimethylbenzene	13.042	105	3503639	162.527	ug/l	99
85) sec-Butylbenzene	13.170	105	4560715	158.609	ug/l	99
86) p-Isopropyltoluene	13.286	119	4024712	165.622	ug/l	100
87) 1,3-Dichlorobenzene	13.286	146	2165278	159.350	ug/l	100
88) 1,4-Dichlorobenzene	13.365	146	2090133	155.104	ug/l	100
89) n-Butylbenzene	13.615	91	3505715	163.379	ug/l	99
90) Hexachloroethane	13.877	117	799264	151.487	ug/l	99
91) 1,2-Dichlorobenzene	13.657	146	1862691	157.101	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.267	75	116273	164.099	ug/l	96
93) 1,2,4-Trichlorobenzene	14.913	180	1272621	182.183	ug/l	100
94) Hexachlorobutadiene	15.017	225	711748	163.518	ug/l	98
95) Naphthalene	15.139	128	2277549	204.639	ug/l	100
96) 1,2,3-Trichlorobenzene	15.322	180	1110193	183.206	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023389.D
Acq On : 07 Oct 2025 12:32
Operator : SY/MD
Sample : VSTDICC150
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC150

Quant Time: Oct 08 04:45:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 04:39:16 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025

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

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

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023391.D
 Acq On : 07 Oct 2025 14:12
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY100725

Quant Time: Oct 08 05:15:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.707	168	574332	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	861639	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	771372	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	405636	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	237493	49.450	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	98.900%		
35) Dibromofluoromethane	7.634	113	260038	49.116	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	98.240%		
50) Toluene-d8	10.103	98	970614	49.228	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	98.460%		
62) 4-Bromofluorobenzene	12.402	95	324700	49.881	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	99.760%		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.867	85	185683	44.916	ug/l	99
3) Chloromethane	2.068	50	295766	52.519	ug/l	98
4) Vinyl Chloride	2.208	62	362714	49.449	ug/l	100
5) Bromomethane	2.598	94	300735	48.856	ug/l	98
6) Chloroethane	2.739	64	256831	51.367	ug/l	99
7) Trichlorofluoromethane	3.056	101	494789	48.582	ug/l	99
8) Diethyl Ether	3.458	74	135857	51.050	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.812	101	257524	48.728	ug/l	100
10) Methyl Iodide	4.007	142	305209	51.875	ug/l	98
11) Tert butyl alcohol	4.860	59	82562	231.079	ug/l	100
12) 1,1-Dichloroethene	3.787	96	254382	49.653	ug/l	97
13) Acrolein	3.653	56	124288	246.184	ug/l	99
14) Allyl chloride	4.385	41	316213	50.645	ug/l	99
15) Acrylonitrile	5.055	53	256219	251.575	ug/l	99
16) Acetone	3.866	43	243433	212.910	ug/l	98
17) Carbon Disulfide	4.104	76	733457	50.021	ug/l	100
18) Methyl Acetate	4.385	43	151281	50.439	ug/l	100
19) Methyl tert-butyl Ether	5.116	73	643111	52.230	ug/l	97
20) Methylene Chloride	4.616	84	324604	52.503	ug/l	97
21) trans-1,2-Dichloroethene	5.116	96	290384	51.482	ug/l	98
22) Diisopropyl ether	6.019	45	709381	51.364	ug/l	99
23) Vinyl Acetate	5.958	43	1950969	260.981	ug/l	99
24) 1,1-Dichloroethane	5.915	63	464207	50.742	ug/l	98
25) 2-Butanone	6.890	43	325351	233.083	ug/l	99
26) 2,2-Dichloropropane	6.884	77	416585	49.626	ug/l	99
27) cis-1,2-Dichloroethene	6.890	96	341964	52.485	ug/l	97
28) Bromochloromethane	7.244	49	155146	45.427	ug/l	100
29) Tetrahydrofuran	7.262	42	200513	253.317	ug/l	99
30) Chloroform	7.421	83	513997	51.137	ug/l	98
31) Cyclohexane	7.701	56	378819	47.416	ug/l	98
32) 1,1,1-Trichloroethane	7.616	97	456112	49.934	ug/l	100
36) 1,1-Dichloropropene	7.835	75	348786	49.761	ug/l	99
37) Ethyl Acetate	6.982	43	138119	49.740	ug/l	98
38) Carbon Tetrachloride	7.817	117	413653	48.671	ug/l	99
39) Methylcyclohexane	9.109	83	456031	49.970	ug/l	99
40) Benzene	8.079	78	1107790	49.906	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023391.D
 Acq On : 07 Oct 2025 14:12
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY100725

Quant Time: Oct 08 05:15:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
 Supervised By :Mahesh Dadoda 10/10/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.220	41	72100	48.008	ug/l	96
42) 1,2-Dichloroethane	8.158	62	282332	49.318	ug/l	99
43) Isopropyl Acetate	8.195	43	279887	50.548	ug/l	100
44) Trichloroethene	8.866	130	319131	49.120	ug/l	98
45) 1,2-Dichloropropane	9.140	63	246887	50.355	ug/l	100
46) Dibromomethane	9.231	93	157758	50.885	ug/l	98
47) Bromodichloromethane	9.420	83	393918	50.450	ug/l	99
48) Methyl methacrylate	9.219	41	128606	49.440	ug/l	95
49) 1,4-Dioxane	9.231	88	37356	1039.252	ug/l	97
51) 4-Methyl-2-Pentanone	10.000	43	724992	253.421	ug/l	100
52) Toluene	10.170	92	743055	51.556	ug/l	99
53) t-1,3-Dichloropropene	10.390	75	347336	51.160	ug/l	99
54) cis-1,3-Dichloropropene	9.853	75	413860	51.649	ug/l	99
55) 1,1,2-Trichloroethane	10.573	97	210245	50.430	ug/l	97
56) Ethyl methacrylate	10.438	69	256731	53.385	ug/l	99
57) 1,3-Dichloropropane	10.713	76	337673	51.113	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.713	63	586266	272.133	ug/l	100
59) 2-Hexanone	10.762	43	501877	245.480	ug/l	99
60) Dibromochloromethane	10.908	129	297946	50.974	ug/l	99
61) 1,2-Dibromoethane	11.018	107	201415	50.658	ug/l	100
64) Tetrachloroethene	10.646	164	382998	48.087	ug/l	99
65) Chlorobenzene	11.438	112	828466	49.381	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.518	131	296157	49.537	ug/l	99
67) Ethyl Benzene	11.518	91	1380691	50.841	ug/l	100
68) m/p-Xylenes	11.627	106	1108386	101.757	ug/l	100
69) o-Xylene	11.950	106	526954	51.577	ug/l	100
70) Styrene	11.969	104	875709	52.122	ug/l	100
71) Bromoform	12.133	173	185682	50.070	ug/l #	98
73) Isopropylbenzene	12.255	105	1345109	50.318	ug/l	100
74) N-amyl acetate	12.066	43	245291	51.087	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.505	83	217245	49.688	ug/l	99
76) 1,2,3-Trichloropropane	12.554	75	153438m	42.874	ug/l	
77) Bromobenzene	12.530	156	352420	49.590	ug/l	99
78) n-propylbenzene	12.591	91	1568180	50.694	ug/l	100
79) 2-Chlorotoluene	12.676	91	906610	50.047	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	1106664	51.231	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.304	75	67959	46.566	ug/l	97
82) 4-Chlorotoluene	12.773	91	941314	50.455	ug/l	100
83) tert-Butylbenzene	12.993	119	1037510	52.019	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	1110672	51.520	ug/l	99
85) sec-Butylbenzene	13.176	105	1454774	50.848	ug/l	100
86) p-Isopropyltoluene	13.292	119	1263377	51.864	ug/l	99
87) 1,3-Dichlorobenzene	13.286	146	686854	49.632	ug/l	99
88) 1,4-Dichlorobenzene	13.365	146	671644	49.140	ug/l	100
89) n-Butylbenzene	13.615	91	1100086	51.829	ug/l	99
90) Hexachloroethane	13.877	117	257335	49.116	ug/l	98
91) 1,2-Dichlorobenzene	13.657	146	602989	49.698	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.273	75	34928	48.687	ug/l	99
93) 1,2,4-Trichlorobenzene	14.919	180	386806	51.138	ug/l	100
94) Hexachlorobutadiene	15.023	225	236040	50.061	ug/l	99
95) Naphthalene	15.139	128	628190	52.154	ug/l	100
96) 1,2,3-Trichlorobenzene	15.328	180	335267	51.172	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023391.D
Acq On : 07 Oct 2025 14:12
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY100725

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025
Supervised By :Mahesh Dadoda 10/10/2025

Quant Time: Oct 08 05:15:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
 Data File : VY023391.D
 Acq On : 07 Oct 2025 14:12
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

ICVVY100725

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 10/10/2025

Supervised By :Mahesh Dadoda 10/10/2025

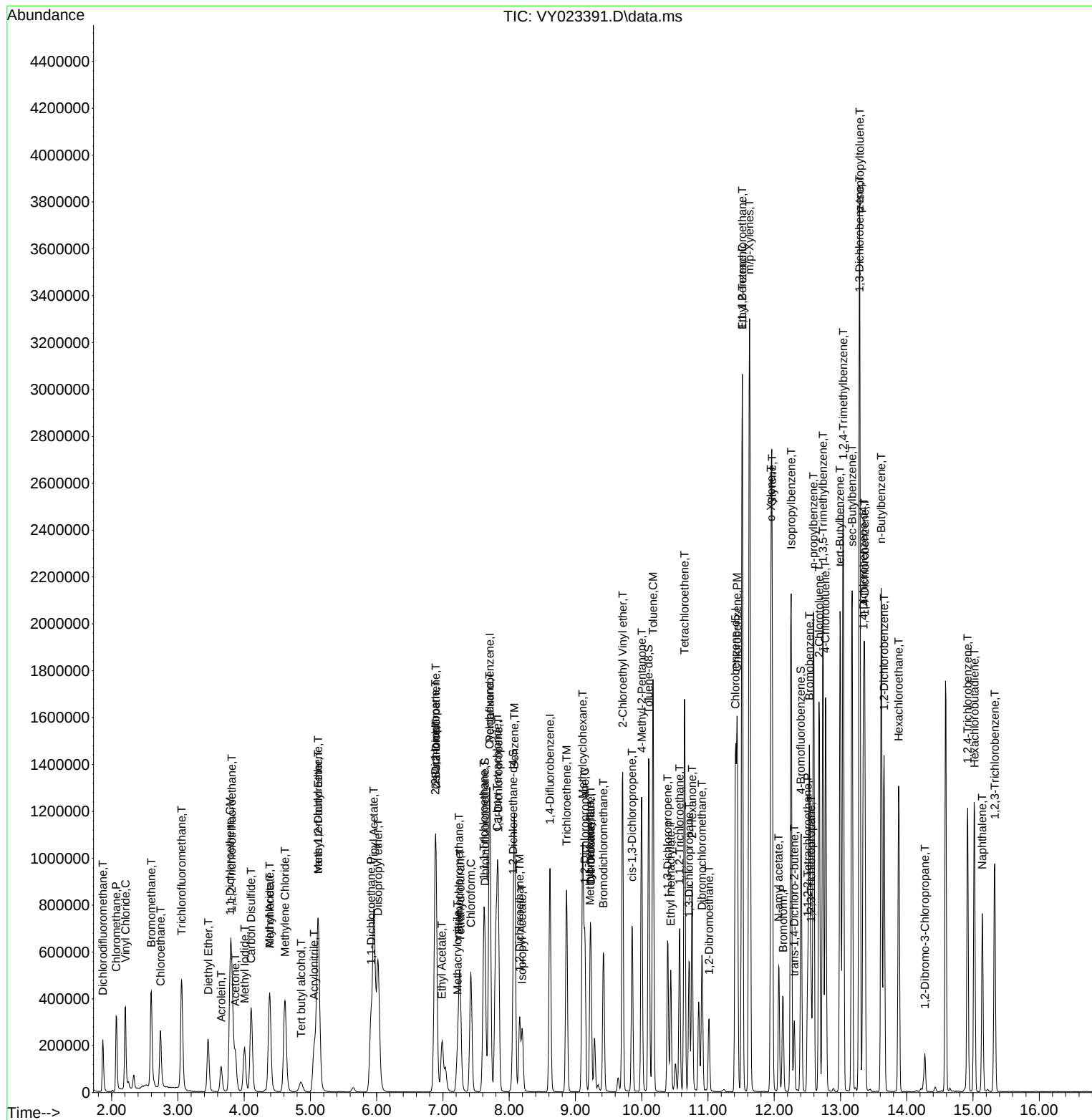
Quant Time: Oct 08 05:15:49 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M

Quant Title : SW846 8260

QLast Update : Wed Oct 08 05:12:50 2025

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023391.D
Acq On : 07 Oct 2025 14:12
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY100725

Quant Time: Oct 08 05:15:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	97	0.00
2 T	Dichlorodifluoromethane	50.000	44.916	10.2	98	0.00
3 P	Chloromethane	50.000	52.519	-5.0	112	0.00
4 C	Vinyl Chloride	50.000	49.449	1.1#	103	0.00
5 T	Bromomethane	50.000	48.856	2.3	109	0.00
6 T	Chloroethane	50.000	51.367	-2.7	105	0.00
7 T	Trichlorofluoromethane	50.000	48.582	2.8	100	0.00
8 T	Diethyl Ether	50.000	51.050	-2.1	107	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	48.728	2.5	100	0.00
10 T	Methyl Iodide	50.000	51.875	-3.8	96	0.00
11 T	Tert butyl alcohol	250.000	231.079	7.6	112	0.00
12 CM	1,1-Dichloroethene	50.000	49.653	0.7#	101	0.00
13 T	Acrolein	250.000	246.184	1.5	101	0.00
14 T	Allyl chloride	50.000	50.645	-1.3	102	0.00
15 T	Acrylonitrile	250.000	251.575	-0.6	106	0.00
16 T	Acetone	250.000	212.910	14.8	99	0.00
17 T	Carbon Disulfide	50.000	50.021	-0.0	101	0.00
18 T	Methyl Acetate	50.000	50.439	-0.9	104	0.00
19 T	Methyl tert-butyl Ether	50.000	52.230	-4.5	107	0.00
20 T	Methylene Chloride	50.000	52.503	-5.0	120	0.00
21 T	trans-1,2-Dichloroethene	50.000	51.482	-3.0	105	0.00
22 T	Diisopropyl ether	50.000	51.364	-2.7	103	0.00
23 T	Vinyl Acetate	250.000	260.981	-4.4	106	0.00
24 P	1,1-Dichloroethane	50.000	50.742	-1.5	104	0.00
25 T	2-Butanone	250.000	233.083	6.8	105	0.00
26 T	2,2-Dichloropropane	50.000	49.626	0.7	100	0.00
27 T	cis-1,2-Dichloroethene	50.000	52.485	-5.0	107	0.00
28 T	Bromochloromethane	50.000	45.427	9.1	99	0.00
29 T	Tetrahydrofuran	250.000	253.317	-1.3	107	0.00
30 C	Chloroform	50.000	51.137	-2.3#	104	0.00
31 T	Cyclohexane	50.000	47.416	5.2	100	0.00
32 T	1,1,1-Trichloroethane	50.000	49.934	0.1	101	0.00
33 S	1,2-Dichloroethane-d4	50.000	49.450	1.1	103	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	100	0.00
35 S	Dibromofluoromethane	50.000	49.116	1.8	101	0.00
36 T	1,1-Dichloropropene	50.000	49.761	0.5	102	0.00
37 T	Ethyl Acetate	50.000	49.740	0.5	107	0.00
38 T	Carbon Tetrachloride	50.000	48.671	2.7	100	0.00
39 T	Methylcyclohexane	50.000	49.970	0.1	101	0.00
40 TM	Benzene	50.000	49.906	0.2	102	0.00
41 T	Methacrylonitrile	50.000	48.008	4.0	105	0.00
42 TM	1,2-Dichloroethane	50.000	49.318	1.4	104	0.00
43 T	Isopropyl Acetate	50.000	50.548	-1.1	108	0.00
44 TM	Trichloroethene	50.000	49.120	1.8	101	0.00
45 C	1,2-Dichloropropane	50.000	50.355	-0.7#	105	0.00
46 T	Dibromomethane	50.000	50.885	-1.8	106	0.00
47 T	Bromodichloromethane	50.000	50.450	-0.9	104	0.00
48 T	Methyl methacrylate	50.000	49.440	1.1	101	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023391.D
Acq On : 07 Oct 2025 14:12
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY100725

Quant Time: Oct 08 05:15:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	1039.252	-3.9	110	0.00
50 S	Toluene-d8	50.000	49.228	1.5	100	0.00
51 T	4-Methyl-2-Pentanone	250.000	253.421	-1.4	106	0.00
52 CM	Toluene	50.000	51.556	-3.1#	105	0.00
53 T	t-1,3-Dichloropropene	50.000	51.160	-2.3	105	0.00
54 T	cis-1,3-Dichloropropene	50.000	51.649	-3.3	106	0.00
55 T	1,1,2-Trichloroethane	50.000	50.430	-0.9	106	0.00
56 T	Ethyl methacrylate	50.000	53.385	-6.8	107	0.00
57 T	1,3-Dichloropropane	50.000	51.113	-2.2	105	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	272.133	-8.9	106	0.00
59 T	2-Hexanone	250.000	245.480	1.8	105	0.00
60 T	Dibromochloromethane	50.000	50.974	-1.9	106	0.00
61 T	1,2-Dibromoethane	50.000	50.658	-1.3	105	0.00
62 S	4-Bromofluorobenzene	50.000	49.881	0.2	104	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	103	0.00
64 T	Tetrachloroethene	50.000	48.087	3.8	98	0.00
65 PM	Chlorobenzene	50.000	49.381	1.2	105	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	49.537	0.9	106	0.00
67 C	Ethyl Benzene	50.000	50.841	-1.7#	104	0.00
68 T	m/p-Xylenes	100.000	101.757	-1.8	103	0.00
69 T	o-Xylene	50.000	51.577	-3.2	105	0.00
70 T	Styrene	50.000	52.122	-4.2	105	0.00
71 P	Bromoform	50.000	50.070	-0.1	108	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	103	0.00
73 T	Isopropylbenzene	50.000	50.318	-0.6	103	0.00
74 T	N-ethyl acetate	50.000	51.087	-2.2	108	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	49.688	0.6	111	0.00
76 T	1,2,3-Trichloropropane	50.000	42.874	14.3	90	0.00
77 T	Bromobenzene	50.000	49.590	0.8	106	0.00
78 T	n-propylbenzene	50.000	50.694	-1.4	103	0.00
79 T	2-Chlorotoluene	50.000	50.047	-0.1	104	0.00
80 T	1,3,5-Trimethylbenzene	50.000	51.231	-2.5	104	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	46.566	6.9	103	0.00
82 T	4-Chlorotoluene	50.000	50.455	-0.9	105	0.00
83 T	tert-Butylbenzene	50.000	52.019	-4.0	105	0.00
84 T	1,2,4-Trimethylbenzene	50.000	51.520	-3.0	105	0.00
85 T	sec-Butylbenzene	50.000	50.848	-1.7	104	0.00
86 T	p-Isopropyltoluene	50.000	51.864	-3.7	104	0.00
87 T	1,3-Dichlorobenzene	50.000	49.632	0.7	106	0.00
88 T	1,4-Dichlorobenzene	50.000	49.140	1.7	105	0.00
89 T	n-Butylbenzene	50.000	51.829	-3.7	105	0.00
90 T	Hexachloroethane	50.000	49.116	1.8	105	0.00
91 T	1,2-Dichlorobenzene	50.000	49.698	0.6	106	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	48.687	2.6	107	0.00
93 T	1,2,4-Trichlorobenzene	50.000	51.138	-2.3	107	0.00
94 T	Hexachlorobutadiene	50.000	50.061	-0.1	104	0.00
95 T	Naphthalene	50.000	52.154	-4.3	109	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023391.D
Acq On : 07 Oct 2025 14:12
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY100725

Quant Time: Oct 08 05:15:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	51.172	-2.3	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023391.D
Acq On : 07 Oct 2025 14:12
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY100725

Quant Time: Oct 08 05:15:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	97	0.00
2 T	Dichlorodifluoromethane	0.360	0.323	10.3	98	0.00
3 P	Chloromethane	0.490	0.515	-5.1	112	0.00
4 C	Vinyl Chloride	0.639	0.632	1.1#	103	0.00
5 T	Bromomethane	0.536	0.524	2.2	109	0.00
6 T	Chloroethane	0.435	0.447	-2.8	105	0.00
7 T	Trichlorofluoromethane	0.887	0.862	2.8	100	0.00
8 T	Diethyl Ether	0.232	0.237	-2.2	107	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.460	0.448	2.6	100	0.00
10 T	Methyl Iodide	0.512	0.531	-3.7	96	0.00
11 T	Tert butyl alcohol	0.031	0.029	6.5	112	0.00
12 CM	1,1-Dichloroethene	0.446	0.443	0.7#	101	0.00
13 T	Acrolein	0.044	0.043	2.3	101	0.00
14 T	Allyl chloride	0.544	0.551	-1.3	102	0.00
15 T	Acrylonitrile	0.089	0.089	0.0	106	0.00
16 T	Acetone	0.100	0.085	15.0	99	0.00
17 T	Carbon Disulfide	1.277	1.277	0.0	101	0.00
18 T	Methyl Acetate	0.261	0.263	-0.8	104	0.00
19 T	Methyl tert-butyl Ether	1.072	1.120	-4.5	107	0.00
20 T	Methylene Chloride	0.538	0.565	-5.0	120	0.00
21 T	trans-1,2-Dichloroethene	0.491	0.506	-3.1	105	0.00
22 T	Diisopropyl ether	1.202	1.235	-2.7	103	0.00
23 T	Vinyl Acetate	0.651	0.679	-4.3	106	0.00
24 P	1,1-Dichloroethane	0.796	0.808	-1.5	104	0.00
25 T	2-Butanone	0.122	0.113	7.4	105	0.00
26 T	2,2-Dichloropropane	0.731	0.725	0.8	100	0.00
27 T	cis-1,2-Dichloroethene	0.567	0.595	-4.9	107	0.00
28 T	Bromochloromethane	0.297	0.270	9.1	99	0.00
29 T	Tetrahydrofuran	0.069	0.070	-1.4	107	0.00
30 C	Chloroform	0.875	0.895	-2.3#	104	0.00
31 T	Cyclohexane	0.696	0.660	5.2	100	0.00
32 T	1,1,1-Trichloroethane	0.795	0.794	0.1	101	0.00
33 S	1,2-Dichloroethane-d4	0.418	0.414	1.0	103	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
35 S	Dibromofluoromethane	0.307	0.302	1.6	101	0.00
36 T	1,1-Dichloropropene	0.407	0.405	0.5	102	0.00
37 T	Ethyl Acetate	0.161	0.160	0.6	107	0.00
38 T	Carbon Tetrachloride	0.493	0.480	2.6	100	0.00
39 T	Methylcyclohexane	0.530	0.529	0.2	101	0.00
40 TM	Benzene	1.288	1.286	0.2	102	0.00
41 T	Methacrylonitrile	0.087	0.084	3.4	105	0.00
42 TM	1,2-Dichloroethane	0.332	0.328	1.2	104	0.00
43 T	Isopropyl Acetate	0.321	0.325	-1.2	108	0.00
44 TM	Trichloroethene	0.377	0.370	1.9	101	0.00
45 C	1,2-Dichloropropane	0.285	0.287	-0.7#	105	0.00
46 T	Dibromomethane	0.180	0.183	-1.7	106	0.00
47 T	Bromodichloromethane	0.453	0.457	-0.9	104	0.00
48 T	Methyl methacrylate	0.151	0.149	1.3	101	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023391.D
Acq On : 07 Oct 2025 14:12
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY100725

Quant Time: Oct 08 05:15:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.002	0.002	0.0	110	0.00
50 S	Toluene-d8	1.144	1.126	1.6	100	0.00
51 T	4-Methyl-2-Pentanone	0.166	0.168	-1.2	106	0.00
52 CM	Toluene	0.836	0.862	-3.1#	105	0.00
53 T	t-1,3-Dichloropropene	0.394	0.403	-2.3	105	0.00
54 T	cis-1,3-Dichloropropene	0.465	0.480	-3.2	106	0.00
55 T	1,1,2-Trichloroethane	0.242	0.244	-0.8	106	0.00
56 T	Ethyl methacrylate	0.279	0.298	-6.8	107	0.00
57 T	1,3-Dichloropropane	0.383	0.392	-2.3	105	0.00
58 T	2-Chloroethyl Vinyl ether	0.125	0.136	-8.8	106	0.00
59 T	2-Hexanone	0.119	0.116	2.5	105	0.00
60 T	Dibromochloromethane	0.339	0.346	-2.1	106	0.00
61 T	1,2-Dibromoethane	0.231	0.234	-1.3	105	0.00
62 S	4-Bromofluorobenzene	0.378	0.377	0.3	104	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00
64 T	Tetrachloroethene	0.516	0.497	3.7	98	0.00
65 PM	Chlorobenzene	1.087	1.074	1.2	105	0.00
66 T	1,1,1,2-Tetrachloroethane	0.388	0.384	1.0	106	0.00
67 C	Ethyl Benzene	1.760	1.790	-1.7#	104	0.00
68 T	m/p-Xylenes	0.706	0.718	-1.7	103	0.00
69 T	o-Xylene	0.662	0.683	-3.2	105	0.00
70 T	Styrene	1.089	1.135	-4.2	105	0.00
71 P	Bromoform	0.240	0.241	-0.4	108	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
73 T	Isopropylbenzene	3.295	3.316	-0.6	103	0.00
74 T	N-amyl acetate	0.592	0.605	-2.2	108	0.00
75 P	1,1,2,2-Tetrachloroethane	0.539	0.536	0.6	111	0.00
76 T	1,2,3-Trichloropropane	0.441	0.378	14.3	90	0.00
77 T	Bromobenzene	0.876	0.869	0.8	106	0.00
78 T	n-propylbenzene	3.813	3.866	-1.4	103	0.00
79 T	2-Chlorotoluene	2.233	2.235	-0.1	104	0.00
80 T	1,3,5-Trimethylbenzene	2.663	2.728	-2.4	104	0.00
81 T	trans-1,4-Dichloro-2-butene	0.180	0.168	6.7	103	0.00
82 T	4-Chlorotoluene	2.300	2.321	-0.9	105	0.00
83 T	tert-Butylbenzene	2.458	2.558	-4.1	105	0.00
84 T	1,2,4-Trimethylbenzene	2.657	2.738	-3.0	105	0.00
85 T	sec-Butylbenzene	3.527	3.586	-1.7	104	0.00
86 T	p-Isopropyltoluene	3.003	3.115	-3.7	104	0.00
87 T	1,3-Dichlorobenzene	1.706	1.693	0.8	106	0.00
88 T	1,4-Dichlorobenzene	1.685	1.656	1.7	105	0.00
89 T	n-Butylbenzene	2.616	2.712	-3.7	105	0.00
90 T	Hexachloroethane	0.646	0.634	1.9	105	0.00
91 T	1,2-Dichlorobenzene	1.496	1.487	0.6	106	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.088	0.086	2.3	107	0.00
93 T	1,2,4-Trichlorobenzene	0.932	0.954	-2.4	107	0.00
94 T	Hexachlorobutadiene	0.581	0.582	-0.2	104	0.00
95 T	Naphthalene	1.485	1.549	-4.3	109	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023391.D
Acq On : 07 Oct 2025 14:12
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY100725

Quant Time: Oct 08 05:15:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.808	0.827	-2.4	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	<u>Alliance</u>	Contract:	<u>AECO02</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q3363</u>
Instrument ID:	<u>MSVOA_W</u>	Calibration Date/Time:	<u>10/20/2025</u> <u>10:20</u>
Lab File ID:	<u>VW032378.D</u>	Init. Calib. Date(s):	<u>10/01/2025</u> <u>10/01/2025</u>
Heated Purge: (Y/N)	<u>Y</u>	Init. Calib. Time(s):	<u>13:12</u> <u>15:20</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.314	0.311		-0.95	20
Chloromethane	0.484	0.459	0.1	-5.16	20
Vinyl Chloride	0.578	0.608		5.19	20
Bromomethane	0.425	0.444		4.47	20
Chloroethane	0.382	0.416		8.9	20
Trichlorofluoromethane	0.433	0.501		15.7	20
1,1,2-Trichlorotrifluoroethane	0.519	0.563		8.48	20
1,1-Dichloroethene	0.564	0.625		10.82	20
Acetone	0.202	0.196		-2.97	20
Carbon Disulfide	1.538	1.711		11.25	20
Methyl tert-butyl Ether	1.110	1.198		7.93	20
Methyl Acetate	0.578	0.649		12.28	20
Methylene Chloride	0.838	0.723		-13.72	20
trans-1,2-Dichloroethene	0.624	0.698		11.86	20
1,1-Dichloroethane	1.203	1.322	0.1	9.89	20
Cyclohexane	1.027	1.031		0.39	20
2-Butanone	0.275	0.276		0.36	20
Carbon Tetrachloride	0.430	0.504		17.21	20
cis-1,2-Dichloroethene	0.749	0.820		9.48	20
Bromochloromethane	0.566	0.610		7.77	20
Chloroform	1.220	1.377		12.87	20
1,1,1-Trichloroethane	0.864	0.981		13.54	20
Methylcyclohexane	0.551	0.593		7.62	20
Benzene	1.432	1.599		11.66	20
1,2-Dichloroethane	0.469	0.515		9.81	20
Trichloroethene	0.335	0.366		9.25	20
1,2-Dichloropropane	0.358	0.402		12.29	20
Bromodichloromethane	0.503	0.597		18.69	20
4-Methyl-2-Pentanone	0.313	0.344		9.9	20
Toluene	0.892	1.027		15.14	20
t-1,3-Dichloropropene	0.488	0.563		15.37	20
cis-1,3-Dichloropropene	0.562	0.643		14.41	20
1,1,2-Trichloroethane	0.294	0.336		14.29	20
2-Hexanone	0.220	0.244		10.91	20
Dibromochloromethane	0.334	0.413		23.65	20
1,2-Dibromoethane	0.287	0.319		11.15	20
Tetrachloroethene	0.299	0.315		5.35	20
Chlorobenzene	1.100	1.171	0.3	6.45	20

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



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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	<u>Alliance</u>	Contract:	<u>AECO02</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q3363</u>
Instrument ID:	<u>MSVOA_W</u>	Calibration Date/Time:	<u>10/20/2025</u> <u>10:20</u>
Lab File ID:	<u>VW032378.D</u>	Init. Calib. Date(s):	<u>10/01/2025</u> <u>10/01/2025</u>
Heated Purge: (Y/N)	<u>Y</u>	Init. Calib. Time(s):	<u>13:12</u> <u>15:20</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Ethyl Benzene	1.834	2.060		12.32	20
m/p-Xylenes	0.707	0.797		12.73	20
o-Xylene	0.661	0.740		11.95	20
Styrene	1.155	1.345		16.45	20
Bromoform	0.196	0.242	0.1	23.47	20
Isopropylbenzene	3.421	3.733		9.12	20
1,1,2,2-Tetrachloroethane	0.849	0.868	0.3	2.24	20
1,3-Dichlorobenzene	1.670	1.766		5.75	20
1,4-Dichlorobenzene	1.670	1.805		8.08	20
1,2-Dichlorobenzene	1.509	1.604		6.3	20
1,2-Dibromo-3-Chloropropane	0.149	0.158		6.04	20
1,2,4-Trichlorobenzene	0.905	0.957		5.75	20
1,2,3-Trichlorobenzene	0.853	0.902		5.74	20
1,2-Dichloroethane-d4	0.729	0.743		1.92	20
Dibromofluoromethane	0.324	0.347		7.1	20
Toluene-d8	1.195	1.278		6.95	20
4-Bromofluorobenzene	0.452	0.470		3.98	20

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
 Data File : VW032378.D
 Acq On : 20 Oct 2025 10:20
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDCCC050

Quant Time: Oct 21 01:22:37 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:24:16 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Amit Patel 10/21/2025
 Supervised By :Semsettin Yesilyurt 10/21/2025

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

Internal Standards						
1) Pentafluorobenzene	7.965	168	276051	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.855	114	500417	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	466876	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	234766	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.319	65	205038	50.924	ug/l	0.00
Spiked Amount	50.000	Range	63 - 155	Recovery	= 101.840%	
35) Dibromofluoromethane	7.904	113	173699	53.598	ug/l	0.00
Spiked Amount	50.000	Range	70 - 134	Recovery	= 107.200%	
50) Toluene-d8	10.325	98	639666	53.480	ug/l	0.00
Spiked Amount	50.000	Range	74 - 123	Recovery	= 106.960%	
62) 4-Bromofluorobenzene	12.617	95	235180	52.021	ug/l	0.00
Spiked Amount	50.000	Range	17 - 146	Recovery	= 104.040%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.046	85	85790	49.525	ug/l	94
3) Chloromethane	2.259	50	126734	47.414	ug/l	100
4) Vinyl Chloride	2.405	62	167782	52.579	ug/l	98
5) Bromomethane	2.826	94	122514	52.244	ug/l	99
6) Chloroethane	2.972	64	114864	54.521	ug/l	94
7) Trichlorofluoromethane	3.308	101	138344	57.903	ug/l	91
8) Diethyl Ether	3.722	74	110844	53.538	ug/l	89
9) 1,1,2-Trichlorotrifluo...	4.106	101	155412	54.231	ug/l	93
10) Methyl Iodide	4.307	142	232975	56.977	ug/l	97
11) Tert butyl alcohol	5.216	59	64740	212.423	ug/l	97
12) 1,1-Dichloroethene	4.076	96	172650	55.494	ug/l	92
13) Acrolein	3.936	56	43147	87.232	ug/l	97
14) Allyl chloride	4.704	41	281514	53.572	ug/l	90
15) Acrylonitrile	5.405	53	276868	257.055	ug/l	99
16) Acetone	4.167	43	269841	242.037	ug/l	98
17) Carbon Disulfide	4.417	76	472236	55.631	ug/l	99
18) Methyl Acetate	4.710	43	179023	56.056	ug/l	97
19) Methyl tert-butyl Ether	5.466	73	330675	53.964	ug/l	96
20) Methylene Chloride	4.960	84	199566	54.562	ug/l	94
21) trans-1,2-Dichloroethene	5.460	96	192705	55.946	ug/l	94
22) Diisopropyl ether	6.344	45	604917	55.352	ug/l	92
23) Vinyl Acetate	6.283	43	1937061	265.367	ug/l	98
24) 1,1-Dichloroethane	6.246	63	364897	54.958	ug/l	99
25) 2-Butanone	7.197	43	380931	250.876	ug/l	98
26) 2,2-Dichloropropane	7.185	77	193268	56.907	ug/l	99
27) cis-1,2-Dichloroethene	7.197	96	226473	54.730	ug/l	93
28) Bromochloromethane	7.532	49	168276	53.869	ug/l	88
29) Tetrahydrofuran	7.551	42	247520	259.216	ug/l	95
30) Chloroform	7.691	83	380098	56.448	ug/l	100
31) Cyclohexane	7.971	56	284615	50.212	ug/l	95
32) 1,1,1-Trichloroethane	7.892	97	270780	56.749	ug/l	99
36) 1,1-Dichloropropene	8.099	75	256579	56.099	ug/l	99
37) Ethyl Acetate	7.270	43	155800	51.178	ug/l	99
38) Carbon Tetrachloride	8.081	117	252146	58.585	ug/l	98
39) Methylcyclohexane	9.343	83	296823	53.803	ug/l	95
40) Benzene	8.337	78	800201	55.818	ug/l	95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
 Data File : VW032378.D
 Acq On : 20 Oct 2025 10:20
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VSTDCCC050

Quant Time: Oct 21 01:22:37 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:24:16 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Amit Patel 10/21/2025
 Supervised By :Semsettin Yesilyurt 10/21/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.502	41	89114	54.317	ug/l	93
42) 1,2-Dichloroethane	8.410	62	257863	54.972	ug/l	99
43) Isopropyl Acetate	8.435	43	295528	54.722	ug/l	99
44) Trichloroethene	9.099	130	182918	54.492	ug/l	92
45) 1,2-Dichloropropane	9.374	63	200994	56.170	ug/l	100
46) Dibromomethane	9.465	93	123268	56.022	ug/l	95
47) Bromodichloromethane	9.654	83	298867	59.385	ug/l	98
48) Methyl methacrylate	9.441	41	138219	52.640	ug/l	95
49) 1,4-Dioxane	9.465	88	33056	1099.123	ug/l	95
51) 4-Methyl-2-Pentanone	10.215	43	860318	275.041	ug/l	99
52) Toluene	10.392	92	513800	57.552	ug/l	98
53) t-1,3-Dichloropropene	10.611	75	281818	57.719	ug/l	100
54) cis-1,3-Dichloropropene	10.075	75	321876	57.231	ug/l	94
55) 1,1,2-Trichloroethane	10.788	97	168313	57.233	ug/l	93
56) Ethyl methacrylate	10.648	69	231959	56.352	ug/l #	94
57) 1,3-Dichloropropane	10.934	76	289077	55.655	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.928	63	629980	287.576	ug/l	96
59) 2-Hexanone	10.971	43	610396	276.684	ug/l	99
60) Dibromochloromethane	11.129	129	206640	61.883	ug/l	97
61) 1,2-Dibromoethane	11.239	107	159483	55.617	ug/l	97
64) Tetrachloroethene	10.867	164	147123	52.663	ug/l	96
65) Chlorobenzene	11.660	112	546708	53.221	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.733	131	188463	58.904	ug/l	99
67) Ethyl Benzene	11.733	91	961868	56.174	ug/l	98
68) m/p-Xylenes	11.837	106	744366	112.736	ug/l	100
69) o-Xylene	12.166	106	345708	55.988	ug/l	98
70) Styrene	12.178	104	628107	58.262	ug/l	98
71) Bromoform	12.349	173	112897	61.560	ug/l #	95
73) Isopropylbenzene	12.464	105	876325	54.560	ug/l	100
74) N-amyl acetate	12.269	43	262286	51.189	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.714	83	203868	51.119	ug/l	99
76) 1,2,3-Trichloropropane	12.763	75	153664m	49.739	ug/l	
77) Bromobenzene	12.745	156	208716	53.907	ug/l	91
78) n-propylbenzene	12.800	91	1092673	54.462	ug/l	98
79) 2-Chlorotoluene	12.891	91	652667	53.203	ug/l	99
80) 1,3,5-Trimethylbenzene	12.940	105	752875	54.209	ug/l	97
81) trans-1,4-Dichloro-2-b...	12.513	75	70326	57.667	ug/l	92
82) 4-Chlorotoluene	12.983	91	709987	54.437	ug/l	98
83) tert-Butylbenzene	13.202	119	640849	56.237	ug/l	99
84) 1,2,4-Trimethylbenzene	13.245	105	771106	54.602	ug/l	99
85) sec-Butylbenzene	13.379	105	936126	53.756	ug/l	99
86) p-Isopropyltoluene	13.495	119	800220	55.381	ug/l	99
87) 1,3-Dichlorobenzene	13.495	146	414615	52.884	ug/l	97
88) 1,4-Dichlorobenzene	13.574	146	423851	54.068	ug/l	96
89) n-Butylbenzene	13.818	91	753562	53.414	ug/l	98
90) Hexachloroethane	14.086	117	154192	59.535	ug/l	95
91) 1,2-Dichlorobenzene	13.861	146	376678	53.150	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.476	75	37022	53.021	ug/l	89
93) 1,2,4-Trichlorobenzene	15.123	180	224715	52.878	ug/l	99
94) Hexachlorobutadiene	15.226	225	105887	54.498	ug/l	92
95) Naphthalene	15.360	128	542330	53.140	ug/l	99
96) 1,2,3-Trichlorobenzene	15.549	180	211711	52.854	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032378.D
Acq On : 20 Oct 2025 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 21 01:22:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Instrument :
MSVOA_W
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :Amit Patel 10/21/2025
Supervised By :Semsettin Yesilyurt 10/21/2025

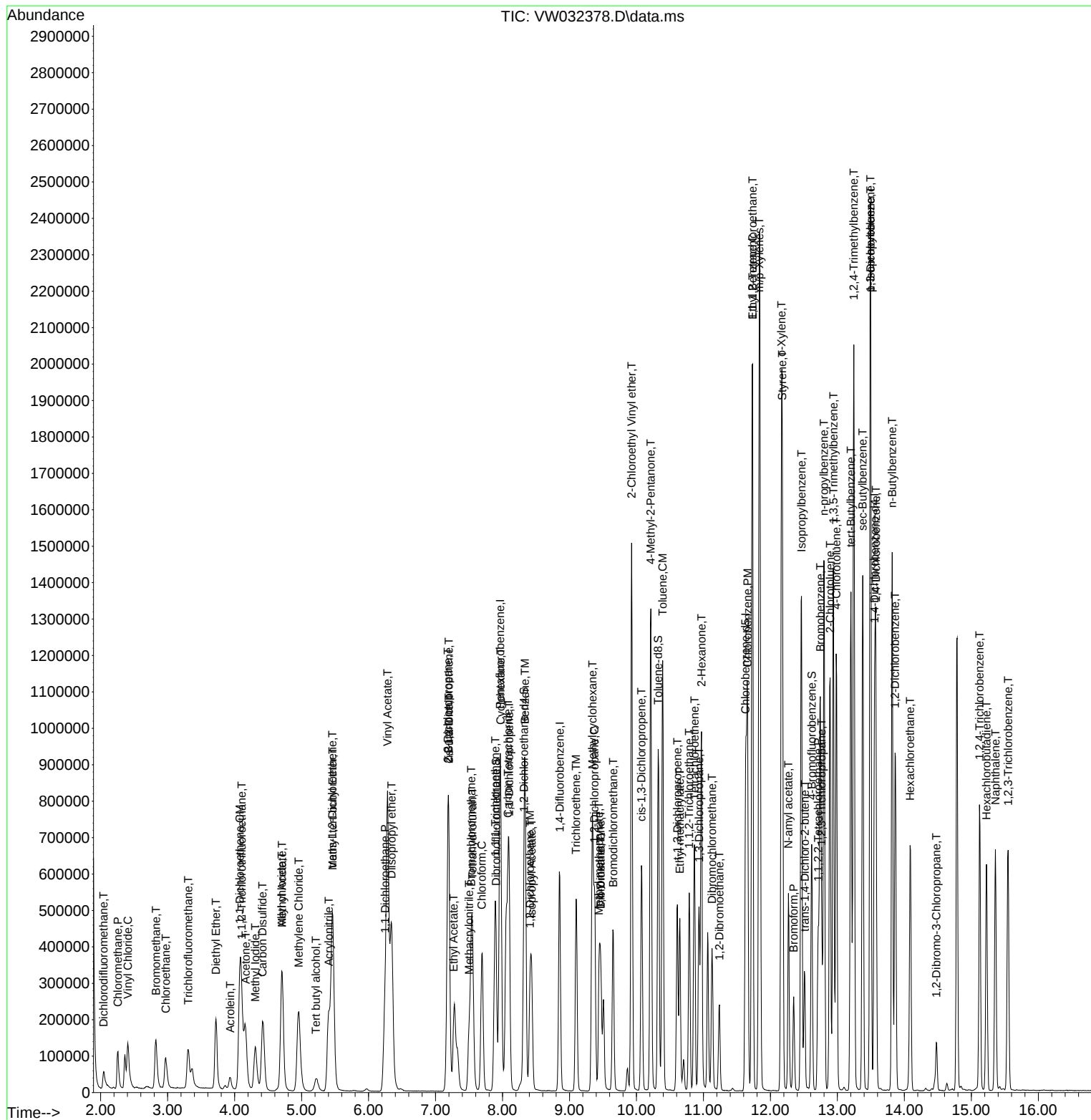
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

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

Instrument :
MSVOA_W
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :Amit Patel 10/21/2025
Supervised By :Semsettin Yesilyurt 10/21/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032378.D
Acq On : 20 Oct 2025 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_W
LabSampleId :
VSTDCCC050

Quant Time: Oct 21 01:22:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	95	0.00
2 T	Dichlorodifluoromethane	0.314	0.311	1.0	112	0.00
3 P	Chloromethane	0.484	0.459	5.2	105	0.00
4 C	Vinyl Chloride	0.578	0.608	-5.2#	110	0.00
5 T	Bromomethane	0.425	0.444	-4.5	111	0.00
6 T	Chloroethane	0.382	0.416	-8.9	112	0.00
7 T	Trichlorofluoromethane	0.433	0.501	-15.7	114	0.00
8 T	Diethyl Ether	0.375	0.402	-7.2	111	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.519	0.563	-8.5	116	0.00
10 T	Methyl Iodide	0.741	0.844	-13.9	116	0.00
11 T	Tert butyl alcohol	0.055	0.047	14.5	91	0.00
12 CM	1,1-Dichloroethene	0.564	0.625	-10.8#	115	0.00
13 T	Acrolein	0.090	0.031	65.6#	37#	0.00
14 T	Allyl chloride	0.952	1.020	-7.1	107	0.00
15 T	Acrylonitrile	0.195	0.201	-3.1	102	0.00
16 T	Acetone	0.202	0.196	3.0	102	0.00
17 T	Carbon Disulfide	1.538	1.711	-11.2	113	0.00
18 T	Methyl Acetate	0.578	0.649	-12.3	99	0.00
19 T	Methyl tert-butyl Ether	1.110	1.198	-7.9	107	0.00
20 T	Methylene Chloride	0.838	0.723	13.7	109	0.00
21 T	trans-1,2-Dichloroethene	0.624	0.698	-11.9	113	0.00
22 T	Diisopropyl ether	1.979	2.191	-10.7	110	0.00
23 T	Vinyl Acetate	1.322	1.403	-6.1	107	0.00
24 P	1,1-Dichloroethane	1.203	1.322	-9.9	112	0.00
25 T	2-Butanone	0.275	0.276	-0.4	101	0.00
26 T	2,2-Dichloropropane	0.615	0.700	-13.8	116	0.00
27 T	cis-1,2-Dichloroethene	0.749	0.820	-9.5	109	0.00
28 T	Bromochloromethane	0.566	0.610	-7.8	106	0.00
29 T	Tetrahydrofuran	0.173	0.179	-3.5	100	0.00
30 C	Chloroform	1.220	1.377	-12.9#	115	0.00
31 T	Cyclohexane	1.027	1.031	-0.4	108	0.00
32 T	1,1,1-Trichloroethane	0.864	0.981	-13.5	115	0.00
33 S	1,2-Dichloroethane-d4	0.729	0.743	-1.9	102	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00
35 S	Dibromofluoromethane	0.324	0.347	-7.1	107	0.00
36 T	1,1-Dichloropropene	0.457	0.513	-12.3	110	0.00
37 T	Ethyl Acetate	0.304	0.311	-2.3	101	0.00
38 T	Carbon Tetrachloride	0.430	0.504	-17.2	118	0.00
39 T	Methylcyclohexane	0.551	0.593	-7.6	107	0.00
40 TM	Benzene	1.432	1.599	-11.7	112	0.00
41 T	Methacrylonitrile	0.164	0.178	-8.5	103	0.00
42 TM	1,2-Dichloroethane	0.469	0.515	-9.8	110	0.00
43 T	Isopropyl Acetate	0.540	0.591	-9.4	107	0.00
44 TM	Trichloroethene	0.335	0.366	-9.3	111	0.00
45 C	1,2-Dichloropropane	0.358	0.402	-12.3#	111	0.00
46 T	Dibromomethane	0.220	0.246	-11.8	110	0.00
47 T	Bromodichloromethane	0.503	0.597	-18.7	117	0.00
48 T	Methyl methacrylate	0.262	0.276	-5.3	101	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032378.D
Acq On : 20 Oct 2025 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_W
LabSampleId :
VSTDCCC050

Quant Time: Oct 21 01:22:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.003	0.003	0.0	101	0.00
50 S	Toluene-d8	1.195	1.278	-6.9	101	0.00
51 T	4-Methyl-2-Pentanone	0.313	0.344	-9.9	104	0.00
52 CM	Toluene	0.892	1.027	-15.1#	113	0.00
53 T	t-1,3-Dichloropropene	0.488	0.563	-15.4	111	0.00
54 T	cis-1,3-Dichloropropene	0.562	0.643	-14.4	111	0.00
55 T	1,1,2-Trichloroethane	0.294	0.336	-14.3	113	0.00
56 T	Ethyl methacrylate	0.411	0.464	-12.9	107	0.00
57 T	1,3-Dichloropropane	0.519	0.578	-11.4	109	0.00
58 T	2-Chloroethyl Vinyl ether	0.219	0.252	-15.1	98	0.00
59 T	2-Hexanone	0.220	0.244	-10.9	105	0.00
60 T	Dibromochloromethane	0.334	0.413	-23.7	119	0.00
61 T	1,2-Dibromoethane	0.287	0.319	-11.1	108	0.00
62 S	4-Bromofluorobenzene	0.452	0.470	-4.0	99	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
64 T	Tetrachloroethene	0.299	0.315	-5.4	108	0.00
65 PM	Chlorobenzene	1.100	1.171	-6.5	109	0.00
66 T	1,1,1,2-Tetrachloroethane	0.343	0.404	-17.8	122	0.00
67 C	Ethyl Benzene	1.834	2.060	-12.3#	113	0.00
68 T	m/p-Xylenes	0.707	0.797	-12.7	114	0.00
69 T	o-Xylene	0.661	0.740	-12.0	111	0.00
70 T	Styrene	1.155	1.345	-16.5	114	0.00
71 P	Bromoform	0.196	0.242	-23.5	122	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
73 T	Isopropylbenzene	3.421	3.733	-9.1	112	0.00
74 T	N-amyl acetate	1.091	1.117	-2.4	105	0.00
75 P	1,1,2,2-Tetrachloroethane	0.849	0.868	-2.2	108	0.00
76 T	1,2,3-Trichloropropane	0.658	0.655	0.5	108	0.00
77 T	Bromobenzene	0.825	0.889	-7.8	109	0.00
78 T	n-propylbenzene	4.273	4.654	-8.9	114	0.00
79 T	2-Chlorotoluene	2.613	2.780	-6.4	110	0.00
80 T	1,3,5-Trimethylbenzene	2.958	3.207	-8.4	110	0.00
81 T	trans-1,4-Dichloro-2-butene	0.260	0.300	-15.4	112	0.00
82 T	4-Chlorotoluene	2.778	3.024	-8.9	114	0.00
83 T	tert-Butylbenzene	2.427	2.730	-12.5	116	0.00
84 T	1,2,4-Trimethylbenzene	3.008	3.285	-9.2	111	0.00
85 T	sec-Butylbenzene	3.709	3.987	-7.5	112	0.00
86 T	p-Isopropyltoluene	3.077	3.409	-10.8	114	0.00
87 T	1,3-Dichlorobenzene	1.670	1.766	-5.7	111	0.00
88 T	1,4-Dichlorobenzene	1.670	1.805	-8.1	117	0.00
89 T	n-Butylbenzene	3.005	3.210	-6.8	111	0.00
90 T	Hexachloroethane	0.552	0.657	-19.0	126	0.00
91 T	1,2-Dichlorobenzene	1.509	1.604	-6.3	115	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.149	0.158	-6.0	108	0.00
93 T	1,2,4-Trichlorobenzene	0.905	0.957	-5.7	115	0.00
94 T	Hexachlorobutadiene	0.414	0.451	-8.9	125	0.00
95 T	Naphthalene	2.174	2.310	-6.3	105	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032378.D
Acq On : 20 Oct 2025 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_W
LabSampleId :
VSTDCCC050

Quant Time: Oct 21 01:22:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.853	0.902	-5.7	112	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032378.D
Acq On : 20 Oct 2025 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_W
LabSampleId :
VSTDCCC050

Quant Time: Oct 21 01:22:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	95	0.00
2 T	Dichlorodifluoromethane	50.000	49.525	1.0	112	0.00
3 P	Chloromethane	50.000	47.414	5.2	105	0.00
4 C	Vinyl Chloride	50.000	52.579	-5.2#	110	0.00
5 T	Bromomethane	50.000	52.244	-4.5	111	0.00
6 T	Chloroethane	50.000	54.521	-9.0	112	0.00
7 T	Trichlorofluoromethane	50.000	57.903	-15.8	114	0.00
8 T	Diethyl Ether	50.000	53.538	-7.1	111	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	54.231	-8.5	116	0.00
10 T	Methyl Iodide	50.000	56.977	-14.0	116	0.00
11 T	Tert butyl alcohol	250.000	212.423	15.0	91	0.00
12 CM	1,1-Dichloroethene	50.000	55.494	-11.0#	115	0.00
13 T	Acrolein	250.000	87.232	65.1#	37	0.00
14 T	Allyl chloride	50.000	53.572	-7.1	107	0.00
15 T	Acrylonitrile	250.000	257.055	-2.8	102	0.00
16 T	Acetone	250.000	242.037	3.2	102	0.00
17 T	Carbon Disulfide	50.000	55.631	-11.3	113	0.00
18 T	Methyl Acetate	50.000	56.056	-12.1	99	0.00
19 T	Methyl tert-butyl Ether	50.000	53.964	-7.9	107	0.00
20 T	Methylene Chloride	50.000	54.562	-9.1	109	0.00
21 T	trans-1,2-Dichloroethene	50.000	55.946	-11.9	113	0.00
22 T	Diisopropyl ether	50.000	55.352	-10.7	110	0.00
23 T	Vinyl Acetate	250.000	265.367	-6.1	107	0.00
24 P	1,1-Dichloroethane	50.000	54.958	-9.9	112	0.00
25 T	2-Butanone	250.000	250.876	-0.4	101	0.00
26 T	2,2-Dichloropropane	50.000	56.907	-13.8	116	0.00
27 T	cis-1,2-Dichloroethene	50.000	54.730	-9.5	109	0.00
28 T	Bromochloromethane	50.000	53.869	-7.7	106	0.00
29 T	Tetrahydrofuran	250.000	259.216	-3.7	100	0.00
30 C	Chloroform	50.000	56.448	-12.9#	115	0.00
31 T	Cyclohexane	50.000	50.212	-0.4	108	0.00
32 T	1,1,1-Trichloroethane	50.000	56.749	-13.5	115	0.00
33 S	1,2-Dichloroethane-d4	50.000	50.924	-1.8	102	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	94	0.00
35 S	Dibromofluoromethane	50.000	53.598	-7.2	107	0.00
36 T	1,1-Dichloropropene	50.000	56.099	-12.2	110	0.00
37 T	Ethyl Acetate	50.000	51.178	-2.4	101	0.00
38 T	Carbon Tetrachloride	50.000	58.585	-17.2	118	0.00
39 T	Methylcyclohexane	50.000	53.803	-7.6	107	0.00
40 TM	Benzene	50.000	55.818	-11.6	112	0.00
41 T	Methacrylonitrile	50.000	54.317	-8.6	103	0.00
42 TM	1,2-Dichloroethane	50.000	54.972	-9.9	110	0.00
43 T	Isopropyl Acetate	50.000	54.722	-9.4	107	0.00
44 TM	Trichloroethene	50.000	54.492	-9.0	111	0.00
45 C	1,2-Dichloropropane	50.000	56.170	-12.3#	111	0.00
46 T	Dibromomethane	50.000	56.022	-12.0	110	0.00
47 T	Bromodichloromethane	50.000	59.385	-18.8	117	0.00
48 T	Methyl methacrylate	50.000	52.640	-5.3	101	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032378.D
Acq On : 20 Oct 2025 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_W
LabSampleId :
VSTDCCC050

Quant Time: Oct 21 01:22:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	1099.123	-9.9	101	0.00
50 S	Toluene-d8	50.000	53.480	-7.0	101	0.00
51 T	4-Methyl-2-Pentanone	250.000	275.041	-10.0	104	0.00
52 CM	Toluene	50.000	57.552	-15.1#	113	0.00
53 T	t-1,3-Dichloropropene	50.000	57.719	-15.4	111	0.00
54 T	cis-1,3-Dichloropropene	50.000	57.231	-14.5	111	0.00
55 T	1,1,2-Trichloroethane	50.000	57.233	-14.5	113	0.00
56 T	Ethyl methacrylate	50.000	56.352	-12.7	107	0.00
57 T	1,3-Dichloropropane	50.000	55.655	-11.3	109	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	287.576	-15.0	98	0.00
59 T	2-Hexanone	250.000	276.684	-10.7	105	0.00
60 T	Dibromochloromethane	50.000	61.883	-23.8	119	0.00
61 T	1,2-Dibromoethane	50.000	55.617	-11.2	108	0.00
62 S	4-Bromofluorobenzene	50.000	52.021	-4.0	99	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	95	0.00
64 T	Tetrachloroethene	50.000	52.663	-5.3	108	0.00
65 PM	Chlorobenzene	50.000	53.221	-6.4	109	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	58.904	-17.8	122	0.00
67 C	Ethyl Benzene	50.000	56.174	-12.3#	113	0.00
68 T	m/p-Xylenes	100.000	112.736	-12.7	114	0.00
69 T	o-Xylene	50.000	55.988	-12.0	111	0.00
70 T	Styrene	50.000	58.262	-16.5	114	0.00
71 P	Bromoform	50.000	61.560	-23.1	122	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	100	0.00
73 T	Isopropylbenzene	50.000	54.560	-9.1	112	0.00
74 T	N-ethyl acetate	50.000	51.189	-2.4	105	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	51.119	-2.2	108	0.00
76 T	1,2,3-Trichloropropane	50.000	49.739	0.5	108	0.00
77 T	Bromobenzene	50.000	53.907	-7.8	109	0.00
78 T	n-propylbenzene	50.000	54.462	-8.9	114	0.00
79 T	2-Chlorotoluene	50.000	53.203	-6.4	110	0.00
80 T	1,3,5-Trimethylbenzene	50.000	54.209	-8.4	110	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	57.667	-15.3	112	0.00
82 T	4-Chlorotoluene	50.000	54.437	-8.9	114	0.00
83 T	tert-Butylbenzene	50.000	56.237	-12.5	116	0.00
84 T	1,2,4-Trimethylbenzene	50.000	54.602	-9.2	111	0.00
85 T	sec-Butylbenzene	50.000	53.756	-7.5	112	0.00
86 T	p-Isopropyltoluene	50.000	55.381	-10.8	114	0.00
87 T	1,3-Dichlorobenzene	50.000	52.884	-5.8	111	0.00
88 T	1,4-Dichlorobenzene	50.000	54.068	-8.1	117	0.00
89 T	n-Butylbenzene	50.000	53.414	-6.8	111	0.00
90 T	Hexachloroethane	50.000	59.535	-19.1	126	0.00
91 T	1,2-Dichlorobenzene	50.000	53.150	-6.3	115	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	53.021	-6.0	108	0.00
93 T	1,2,4-Trichlorobenzene	50.000	52.878	-5.8	115	0.00
94 T	Hexachlorobutadiene	50.000	54.498	-9.0	125	0.00
95 T	Naphthalene	50.000	53.140	-6.3	105	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032378.D
Acq On : 20 Oct 2025 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_W
LabSampleId :
VSTDCCC050

Quant Time: Oct 21 01:22:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	52.854	-5.7	112	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	<u>Alliance</u>	Contract:	<u>AECO02</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q3363</u>
Instrument ID:	<u>MSVOA_Y</u>	Calibration Date/Time:	<u>10/16/2025</u> <u>09:12</u>
Lab File ID:	<u>VY023481.D</u>	Init. Calib. Date(s):	<u>10/07/2025</u> <u>10/07/2025</u>
Heated Purge: (Y/N)	<u>Y</u>	Init. Calib. Time(s):	<u>09:17</u> <u>12:32</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.360	0.335		-6.94	20
Chloromethane	0.490	0.458	0.1	-6.53	20
Vinyl Chloride	0.639	0.620		-2.97	20
Bromomethane	0.536	0.501		-6.53	20
Chloroethane	0.435	0.451		3.68	20
Trichlorofluoromethane	0.887	0.894		0.79	20
1,1,2-Trichlorotrifluoroethane	0.460	0.492		6.96	20
1,1-Dichloroethene	0.446	0.459		2.91	20
Acetone	0.100	0.100		0	20
Carbon Disulfide	1.277	1.314		2.9	20
Methyl tert-butyl Ether	1.072	1.019		-4.94	20
Methyl Acetate	0.261	0.259		-0.77	20
Methylene Chloride	0.538	0.501		-6.88	20
trans-1,2-Dichloroethene	0.491	0.520		5.91	20
1,1-Dichloroethane	0.796	0.843	0.1	5.91	20
Cyclohexane	0.696	0.680		-2.3	20
2-Butanone	0.122	0.109		-10.66	20
Carbon Tetrachloride	0.493	0.572		16.02	20
cis-1,2-Dichloroethene	0.567	0.607		7.05	20
Bromochloromethane	0.297	0.280		-5.72	20
Chloroform	0.875	0.939		7.31	20
1,1,1-Trichloroethane	0.795	0.854		7.42	20
Methylcyclohexane	0.530	0.590		11.32	20
Benzene	1.288	1.445		12.19	20
1,2-Dichloroethane	0.332	0.352		6.02	20
Trichloroethene	0.377	0.417		10.61	20
1,2-Dichloropropane	0.285	0.316		10.88	20
Bromodichloromethane	0.453	0.509		12.36	20
4-Methyl-2-Pentanone	0.166	0.160		-3.61	20
Toluene	0.836	0.959		14.71	20
t-1,3-Dichloropropene	0.394	0.422		7.11	20
cis-1,3-Dichloropropene	0.465	0.513		10.32	20
1,1,2-Trichloroethane	0.242	0.257		6.2	20
2-Hexanone	0.119	0.115		-3.36	20
Dibromochloromethane	0.339	0.367		8.26	20
1,2-Dibromoethane	0.231	0.246		6.49	20
Tetrachloroethene	0.516	0.587		13.76	20
Chlorobenzene	1.087	1.208	0.3	11.13	20

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



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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	<u>Alliance</u>	Contract:	<u>AECO02</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q3363</u>
Instrument ID:	<u>MSVOA_Y</u>	Calibration Date/Time:	<u>10/16/2025</u> <u>09:12</u>
Lab File ID:	<u>VY023481.D</u>	Init. Calib. Date(s):	<u>10/07/2025</u> <u>10/07/2025</u>
Heated Purge: (Y/N)	<u>Y</u>	Init. Calib. Time(s):	<u>09:17</u> <u>12:32</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Ethyl Benzene	1.760	2.023		14.94	20
m/p-Xylenes	0.706	0.822		16.43	20
o-Xylene	0.662	0.755		14.05	20
Styrene	1.089	1.274		16.99	20
Bromoform	0.240	0.249	0.1	3.75	20
Isopropylbenzene	3.295	3.800		15.33	20
1,1,2,2-Tetrachloroethane	0.539	0.538	0.3	-0.19	20
1,3-Dichlorobenzene	1.706	1.877		10.02	20
1,4-Dichlorobenzene	1.685	1.803		7	20
1,2-Dichlorobenzene	1.496	1.613		7.82	20
1,2-Dibromo-3-Chloropropane	0.088	0.082		-6.82	20
1,2,4-Trichlorobenzene	0.932	0.959		2.9	20
1,2,3-Trichlorobenzene	0.808	0.811		0.37	20
1,2-Dichloroethane-d4	0.418	0.392		-6.22	20
Dibromofluoromethane	0.307	0.325		5.86	20
Toluene-d8	1.144	1.220		6.64	20
4-Bromofluorobenzene	0.378	0.390		3.17	20

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
 Data File : VY023481.D
 Acq On : 16 Oct 2025 09:12
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDCCC050

Manual Integrations APPROVED

Reviewed By : John Carlone 10/17/2025
 Supervised By : Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:50:07 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.713	168	504198	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.621	114	703605	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	622685	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	326705	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	197403	46.820	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	93.640%		
35) Dibromofluoromethane	7.640	113	228352	52.819	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	105.640%		
50) Toluene-d8	10.109	98	858304	53.309	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	106.620%		
62) 4-Bromofluorobenzene	12.407	95	274401	51.622	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	103.240%		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.866	85	168822	46.518	ug/l	100
3) Chloromethane	2.074	50	230975	46.720	ug/l	96
4) Vinyl Chloride	2.208	62	312417	48.517	ug/l	100
5) Bromomethane	2.598	94	252674	46.758	ug/l	99
6) Chloroethane	2.738	64	227451	51.818	ug/l	99
7) Trichlorofluoromethane	3.061	101	450846	50.425	ug/l	100
8) Diethyl Ether	3.458	74	109301	46.784	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.817	101	247859	53.422	ug/l	99
10) Methyl Iodide	4.006	142	304220	58.900	ug/l	99
11) Tert butyl alcohol	4.854	59	65026	207.314	ug/l	98
12) 1,1-Dichloroethene	3.793	96	231632	51.502	ug/l	94
13) Acrolein	3.659	56	46607	105.158	ug/l	99
14) Allyl chloride	4.390	41	277163	50.565	ug/l	98
15) Acrylonitrile	5.061	53	209158	233.934	ug/l	99
16) Acetone	3.866	43	253226	252.283	ug/l	99
17) Carbon Disulfide	4.110	76	662664	51.479	ug/l	99
18) Methyl Acetate	4.384	43	130552	49.583	ug/l	100
19) Methyl tert-butyl Ether	5.122	73	513963	47.547	ug/l	97
20) Methylene Chloride	4.622	84	252722	46.562	ug/l	95
21) trans-1,2-Dichloroethene	5.122	96	262147	52.941	ug/l	98
22) Diisopropyl ether	6.024	45	625388	51.581	ug/l	99
23) Vinyl Acetate	5.963	43	1552651	236.589	ug/l	99
24) 1,1-Dichloroethane	5.921	63	424830	52.897	ug/l	98
25) 2-Butanone	6.896	43	275465	224.795	ug/l	98
26) 2,2-Dichloropropane	6.890	77	397829	53.984	ug/l	98
27) cis-1,2-Dichloroethene	6.896	96	306156	53.526	ug/l	97
28) Bromochloromethane	7.250	49	140992	47.026	ug/l	99
29) Tetrahydrofuran	7.268	42	149257	214.792	ug/l	100
30) Chloroform	7.426	83	473385	53.648	ug/l	99
31) Cyclohexane	7.707	56	342677	48.858	ug/l	99
32) 1,1,1-Trichloroethane	7.621	97	430796	53.723	ug/l	99
36) 1,1-Dichloropropene	7.841	75	327508	57.220	ug/l	100
37) Ethyl Acetate	6.987	43	106159	46.817	ug/l	99
38) Carbon Tetrachloride	7.823	117	402588	58.008	ug/l	100
39) Methylcyclohexane	9.115	83	414933	55.679	ug/l	100
40) Benzene	8.085	78	1016809	56.096	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
 Data File : VY023481.D
 Acq On : 16 Oct 2025 09:12
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDCCC050

Manual Integrations

APPROVED

Reviewed By :John Carlone 10/17/2025

Supervised By :Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:50:07 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M

Quant Title : SW846 8260

QLast Update : Wed Oct 08 05:12:50 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.225	41	65803	53.656	ug/l #	87
42) 1,2-Dichloroethane	8.164	62	247813	53.011	ug/l	100
43) Isopropyl Acetate	8.201	43	208996	46.223	ug/l	100
44) Trichloroethene	8.871	130	293318	55.287	ug/l	99
45) 1,2-Dichloropropane	9.146	63	222124	55.480	ug/l	99
46) Dibromomethane	9.237	93	138624	54.757	ug/l	97
47) Bromodichloromethane	9.426	83	357924	56.136	ug/l	99
48) Methyl methacrylate	9.225	41	103819	48.875	ug/l	98
49) 1,4-Dioxane	9.225	88	26701	909.671	ug/l	98
51) 4-Methyl-2-Pentanone	9.999	43	564235	241.527	ug/l	100
52) Toluene	10.176	92	674636	57.323	ug/l	99
53) t-1,3-Dichloropropene	10.395	75	297170	53.602	ug/l	97
54) cis-1,3-Dichloropropene	9.859	75	361241	55.208	ug/l	99
55) 1,1,2-Trichloroethane	10.572	97	181108	53.198	ug/l	97
56) Ethyl methacrylate	10.444	69	198657	50.587	ug/l	99
57) 1,3-Dichloropropane	10.719	76	289701	53.701	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.713	63	452744	257.357	ug/l	99
59) 2-Hexanone	10.761	43	404991	242.583	ug/l	100
60) Dibromochloromethane	10.914	129	258288	54.114	ug/l	98
61) 1,2-Dibromoethane	11.017	107	173331	53.386	ug/l	99
64) Tetrachloroethene	10.651	164	365309	56.818	ug/l	97
65) Chlorobenzene	11.444	112	752258	55.546	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.517	131	269641	55.871	ug/l	99
67) Ethyl Benzene	11.523	91	1259682	57.462	ug/l	100
68) m/p-Xylenes	11.627	106	1023796	116.434	ug/l	99
69) o-Xylene	11.956	106	469895	56.974	ug/l	99
70) Styrene	11.968	104	793392	58.498	ug/l	100
71) Bromoform	12.133	173	155093	51.808	ug/l #	99
73) Isopropylbenzene	12.255	105	1241405	57.659	ug/l	100
74) N-amyl acetate	12.072	43	181603	46.960	ug/l	97
75) 1,1,2,2-Tetrachloroethane	12.505	83	175704	49.896	ug/l	99
76) 1,2,3-Trichloropropane	12.560	75	138704m	48.121	ug/l	
77) Bromobenzene	12.535	156	306909	53.619	ug/l	99
78) n-propylbenzene	12.596	91	1453652	58.345	ug/l	100
79) 2-Chlorotoluene	12.682	91	818664	56.111	ug/l	99
80) 1,3,5-Trimethylbenzene	12.736	105	1015624	58.376	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.304	75	57920	49.275	ug/l	99
82) 4-Chlorotoluene	12.779	91	852372	56.726	ug/l	100
83) tert-Butylbenzene	12.999	119	918191	57.159	ug/l	99
84) 1,2,4-Trimethylbenzene	13.041	105	1006700	57.979	ug/l	100
85) sec-Butylbenzene	13.175	105	1339630	58.135	ug/l	99
86) p-Isopropyltoluene	13.291	119	1150627	58.647	ug/l	100
87) 1,3-Dichlorobenzene	13.285	146	613123	55.008	ug/l	100
88) 1,4-Dichlorobenzene	13.370	146	589042	53.509	ug/l	99
89) n-Butylbenzene	13.620	91	1000821	58.544	ug/l	99
90) Hexachloroethane	13.883	117	240918	57.092	ug/l	96
91) 1,2-Dichlorobenzene	13.657	146	527112	53.941	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	26704	46.217	ug/l	98
93) 1,2,4-Trichlorobenzene	14.919	180	313461	51.453	ug/l	100
94) Hexachlorobutadiene	15.023	225	208839	54.993	ug/l	99
95) Naphthalene	15.145	128	463611	47.790	ug/l	100
96) 1,2,3-Trichlorobenzene	15.327	180	265054	50.229	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023481.D
Acq On : 16 Oct 2025 09:12
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 10/17/2025
Supervised By :Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:50:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

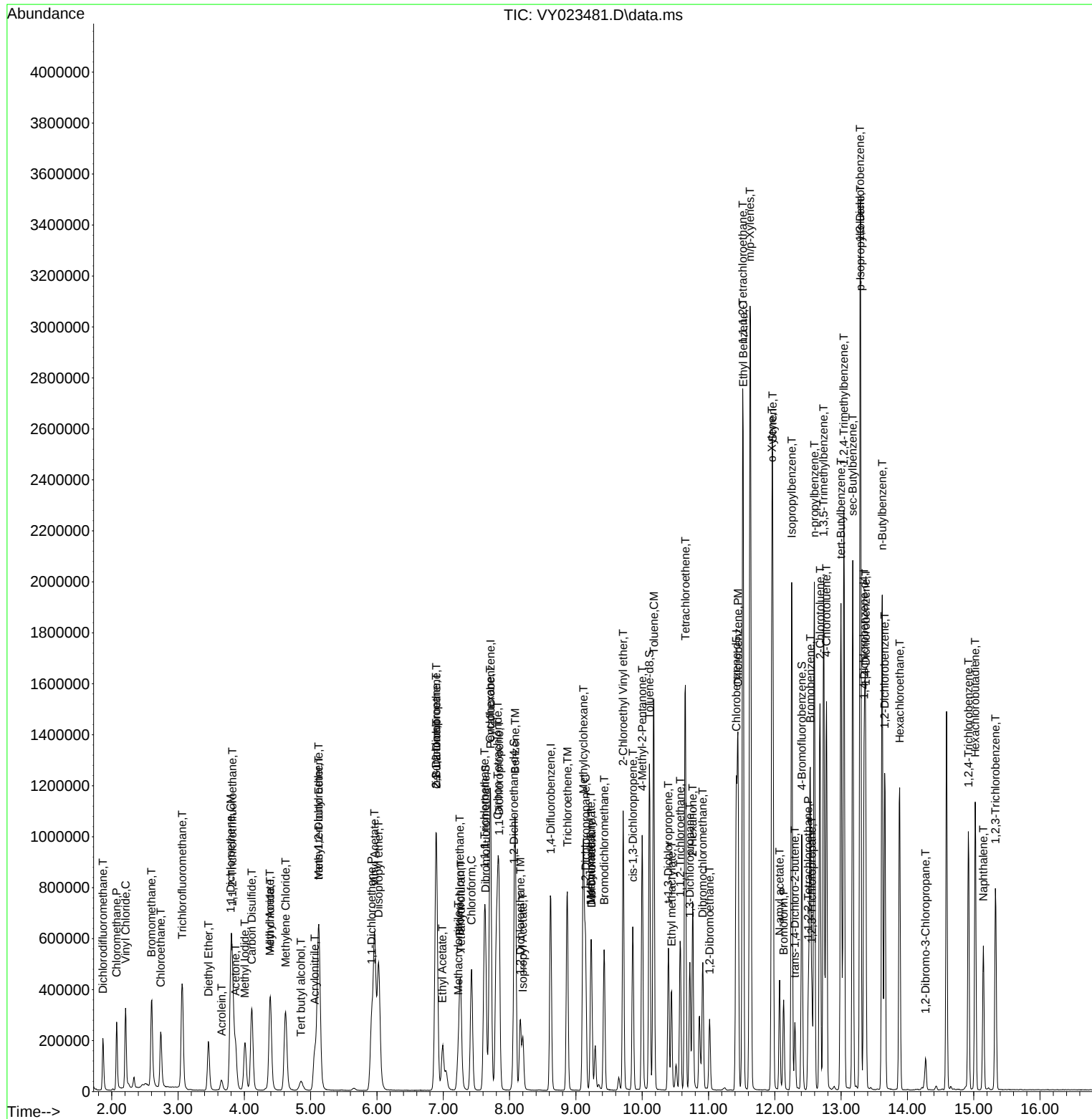
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

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

Instrument :
MSVOA_Y
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 10/17/2025
Supervised By :Mahesh Dadoda 10/17/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023481.D
Acq On : 16 Oct 2025 09:12
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Oct 17 01:50:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	85	0.00
2 T	Dichlorodifluoromethane	0.360	0.335	6.9	89	0.00
3 P	Chloromethane	0.490	0.458	6.5	87	0.00
4 C	Vinyl Chloride	0.639	0.620	3.0#	89	0.00
5 T	Bromomethane	0.536	0.501	6.5	91	0.00
6 T	Chloroethane	0.435	0.451	-3.7	93	0.00
7 T	Trichlorofluoromethane	0.887	0.894	-0.8	91	0.00
8 T	Diethyl Ether	0.232	0.217	6.5	86	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.460	0.492	-7.0	96	0.00
10 T	Methyl Iodide	0.512	0.603	-17.8	96	0.00
11 T	Tert butyl alcohol	0.031	0.026	16.1	88	0.00
12 CM	1,1-Dichloroethene	0.446	0.459	-2.9#	92	0.00
13 T	Acrolein	0.044	0.018	59.1#	38#	0.01
14 T	Allyl chloride	0.544	0.550	-1.1	89	0.01
15 T	Acrylonitrile	0.089	0.083	6.7	87	0.00
16 T	Acetone	0.100	0.100	0.0	102	0.00
17 T	Carbon Disulfide	1.277	1.314	-2.9	92	0.00
18 T	Methyl Acetate	0.261	0.259	0.8	90	0.00
19 T	Methyl tert-butyl Ether	1.072	1.019	4.9	85	0.00
20 T	Methylene Chloride	0.538	0.501	6.9	93	0.00
21 T	trans-1,2-Dichloroethene	0.491	0.520	-5.9	94	0.01
22 T	Diisopropyl ether	1.202	1.240	-3.2	91	0.00
23 T	Vinyl Acetate	0.651	0.616	5.4	84	0.00
24 P	1,1-Dichloroethane	0.796	0.843	-5.9	95	0.00
25 T	2-Butanone	0.122	0.109	10.7	89	0.00
26 T	2,2-Dichloropropane	0.731	0.789	-7.9	96	0.00
27 T	cis-1,2-Dichloroethene	0.567	0.607	-7.1	96	0.00
28 T	Bromochloromethane	0.297	0.280	5.7	90	0.00
29 T	Tetrahydrofuran	0.069	0.059	14.5	79	0.00
30 C	Chloroform	0.875	0.939	-7.3#	96	0.00
31 T	Cyclohexane	0.696	0.680	2.3	90	0.00
32 T	1,1,1-Trichloroethane	0.795	0.854	-7.4	95	0.00
33 S	1,2-Dichloroethane-d4	0.418	0.392	6.2	85	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	82	0.00
35 S	Dibromofluoromethane	0.307	0.325	-5.9	89	0.00
36 T	1,1-Dichloropropene	0.407	0.465	-14.3	96	0.00
37 T	Ethyl Acetate	0.161	0.151	6.2	82	0.00
38 T	Carbon Tetrachloride	0.493	0.572	-16.0	97	0.00
39 T	Methylcyclohexane	0.530	0.590	-11.3	92	0.00
40 TM	Benzene	1.288	1.445	-12.2	94	0.00
41 T	Methacrylonitrile	0.087	0.094	-8.0	96	0.00
42 TM	1,2-Dichloroethane	0.332	0.352	-6.0	92	0.01
43 T	Isopropyl Acetate	0.321	0.297	7.5	81	0.00
44 TM	Trichloroethene	0.377	0.417	-10.6	93	0.00
45 C	1,2-Dichloropropane	0.285	0.316	-10.9#	95	0.00
46 T	Dibromomethane	0.180	0.197	-9.4	93	0.00
47 T	Bromodichloromethane	0.453	0.509	-12.4	95	0.00
48 T	Methyl methacrylate	0.151	0.148	2.0	82	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023481.D
Acq On : 16 Oct 2025 09:12
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Oct 17 01:50:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.002	0.002	0.0	78	0.00
50 S	Toluene-d8	1.144	1.220	-6.6	89	0.00
51 T	4-Methyl-2-Pentanone	0.166	0.160	3.6	83	0.00
52 CM	Toluene	0.836	0.959	-14.7#	95	0.00
53 T	t-1,3-Dichloropropene	0.394	0.422	-7.1	90	0.00
54 T	cis-1,3-Dichloropropene	0.465	0.513	-10.3	92	0.00
55 T	1,1,2-Trichloroethane	0.242	0.257	-6.2	91	0.00
56 T	Ethyl methacrylate	0.279	0.282	-1.1	83	0.00
57 T	1,3-Dichloropropane	0.383	0.412	-7.6	90	0.00
58 T	2-Chloroethyl Vinyl ether	0.125	0.129	-3.2	82	0.00
59 T	2-Hexanone	0.119	0.115	3.4	84	0.00
60 T	Dibromochloromethane	0.339	0.367	-8.3	92	0.00
61 T	1,2-Dibromoethane	0.231	0.246	-6.5	91	0.00
62 S	4-Bromofluorobenzene	0.378	0.390	-3.2	88	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	83	0.00
64 T	Tetrachloroethene	0.516	0.587	-13.8	93	0.00
65 PM	Chlorobenzene	1.087	1.208	-11.1	95	0.00
66 T	1,1,1,2-Tetrachloroethane	0.388	0.433	-11.6	96	0.00
67 C	Ethyl Benzene	1.760	2.023	-14.9#	95	0.00
68 T	m/p-Xylenes	0.706	0.822	-16.4	95	0.00
69 T	o-Xylene	0.662	0.755	-14.0	93	0.00
70 T	Styrene	1.089	1.274	-17.0	95	0.00
71 P	Bromoform	0.240	0.249	-3.8	90	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	0.00
73 T	Isopropylbenzene	3.295	3.800	-15.3	95	0.00
74 T	N-amyl acetate	0.592	0.556	6.1	80	0.00
75 P	1,1,2,2-Tetrachloroethane	0.539	0.538	0.2	90	0.00
76 T	1,2,3-Trichloropropane	0.441	0.425	3.6	82	0.00
77 T	Bromobenzene	0.876	0.939	-7.2	93	0.00
78 T	n-propylbenzene	3.813	4.449	-16.7	95	0.00
79 T	2-Chlorotoluene	2.233	2.506	-12.2	94	0.00
80 T	1,3,5-Trimethylbenzene	2.663	3.109	-16.7	96	0.00
81 T	trans-1,4-Dichloro-2-butene	0.180	0.177	1.7	87	0.00
82 T	4-Chlorotoluene	2.300	2.609	-13.4	95	0.00
83 T	tert-Butylbenzene	2.458	2.810	-14.3	93	0.00
84 T	1,2,4-Trimethylbenzene	2.657	3.081	-16.0	95	0.00
85 T	sec-Butylbenzene	3.527	4.100	-16.2	95	0.00
86 T	p-Isopropyltoluene	3.003	3.522	-17.3	95	0.00
87 T	1,3-Dichlorobenzene	1.706	1.877	-10.0	94	0.00
88 T	1,4-Dichlorobenzene	1.685	1.803	-7.0	93	0.00
89 T	n-Butylbenzene	2.616	3.063	-17.1	95	0.00
90 T	Hexachloroethane	0.646	0.737	-14.1	98	0.00
91 T	1,2-Dichlorobenzene	1.496	1.613	-7.8	93	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.088	0.082	6.8	82	0.00
93 T	1,2,4-Trichlorobenzene	0.932	0.959	-2.9	87	0.00
94 T	Hexachlorobutadiene	0.581	0.639	-10.0	92	0.00
95 T	Naphthalene	1.485	1.419	4.4	81	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023481.D
Acq On : 16 Oct 2025 09:12
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Oct 17 01:50:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.808	0.811	-0.4	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023481.D
Acq On : 16 Oct 2025 09:12
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Oct 17 01:50:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	85	0.00
2 T	Dichlorodifluoromethane	50.000	46.518	7.0	89	0.00
3 P	Chloromethane	50.000	46.720	6.6	87	0.00
4 C	Vinyl Chloride	50.000	48.517	3.0#	89	0.00
5 T	Bromomethane	50.000	46.758	6.5	91	0.00
6 T	Chloroethane	50.000	51.818	-3.6	93	0.00
7 T	Trichlorofluoromethane	50.000	50.425	-0.8	91	0.00
8 T	Diethyl Ether	50.000	46.784	6.4	86	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	53.422	-6.8	96	0.00
10 T	Methyl Iodide	50.000	58.900	-17.8	96	0.00
11 T	Tert butyl alcohol	250.000	207.314	17.1	88	0.00
12 CM	1,1-Dichloroethene	50.000	51.502	-3.0#	92	0.00
13 T	Acrolein	250.000	105.158	57.9#	38	0.01
14 T	Allyl chloride	50.000	50.565	-1.1	89	0.01
15 T	Acrylonitrile	250.000	233.934	6.4	87	0.00
16 T	Acetone	250.000	252.283	-0.9	102	0.00
17 T	Carbon Disulfide	50.000	51.479	-3.0	92	0.00
18 T	Methyl Acetate	50.000	49.583	0.8	90	0.00
19 T	Methyl tert-butyl Ether	50.000	47.547	4.9	85	0.00
20 T	Methylene Chloride	50.000	46.562	6.9	93	0.00
21 T	trans-1,2-Dichloroethene	50.000	52.941	-5.9	94	0.01
22 T	Diisopropyl ether	50.000	51.581	-3.2	91	0.00
23 T	Vinyl Acetate	250.000	236.589	5.4	84	0.00
24 P	1,1-Dichloroethane	50.000	52.897	-5.8	95	0.00
25 T	2-Butanone	250.000	224.795	10.1	89	0.00
26 T	2,2-Dichloropropane	50.000	53.984	-8.0	96	0.00
27 T	cis-1,2-Dichloroethene	50.000	53.526	-7.1	96	0.00
28 T	Bromochloromethane	50.000	47.026	5.9	90	0.00
29 T	Tetrahydrofuran	250.000	214.792	14.1	79	0.00
30 C	Chloroform	50.000	53.648	-7.3#	96	0.00
31 T	Cyclohexane	50.000	48.858	2.3	90	0.00
32 T	1,1,1-Trichloroethane	50.000	53.723	-7.4	95	0.00
33 S	1,2-Dichloroethane-d4	50.000	46.820	6.4	85	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	82	0.00
35 S	Dibromofluoromethane	50.000	52.819	-5.6	89	0.00
36 T	1,1-Dichloropropene	50.000	57.220	-14.4	96	0.00
37 T	Ethyl Acetate	50.000	46.817	6.4	82	0.00
38 T	Carbon Tetrachloride	50.000	58.008	-16.0	97	0.00
39 T	Methylcyclohexane	50.000	55.679	-11.4	92	0.00
40 TM	Benzene	50.000	56.096	-12.2	94	0.00
41 T	Methacrylonitrile	50.000	53.656	-7.3	96	0.00
42 TM	1,2-Dichloroethane	50.000	53.011	-6.0	92	0.01
43 T	Isopropyl Acetate	50.000	46.223	7.6	81	0.00
44 TM	Trichloroethene	50.000	55.287	-10.6	93	0.00
45 C	1,2-Dichloropropane	50.000	55.480	-11.0#	95	0.00
46 T	Dibromomethane	50.000	54.757	-9.5	93	0.00
47 T	Bromodichloromethane	50.000	56.136	-12.3	95	0.00
48 T	Methyl methacrylate	50.000	48.875	2.3	82	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023481.D
Acq On : 16 Oct 2025 09:12
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Oct 17 01:50:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	909.671	9.0	78	0.00
50 S	Toluene-d8	50.000	53.309	-6.6	89	0.00
51 T	4-Methyl-2-Pentanone	250.000	241.527	3.4	83	0.00
52 CM	Toluene	50.000	57.323	-14.6#	95	0.00
53 T	t-1,3-Dichloropropene	50.000	53.602	-7.2	90	0.00
54 T	cis-1,3-Dichloropropene	50.000	55.208	-10.4	92	0.00
55 T	1,1,2-Trichloroethane	50.000	53.198	-6.4	91	0.00
56 T	Ethyl methacrylate	50.000	50.587	-1.2	83	0.00
57 T	1,3-Dichloropropane	50.000	53.701	-7.4	90	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	257.357	-2.9	82	0.00
59 T	2-Hexanone	250.000	242.583	3.0	84	0.00
60 T	Dibromochloromethane	50.000	54.114	-8.2	92	0.00
61 T	1,2-Dibromoethane	50.000	53.386	-6.8	91	0.00
62 S	4-Bromofluorobenzene	50.000	51.622	-3.2	88	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	83	0.00
64 T	Tetrachloroethene	50.000	56.818	-13.6	93	0.00
65 PM	Chlorobenzene	50.000	55.546	-11.1	95	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	55.871	-11.7	96	0.00
67 C	Ethyl Benzene	50.000	57.462	-14.9#	95	0.00
68 T	m/p-Xylenes	100.000	116.434	-16.4	95	0.00
69 T	o-Xylene	50.000	56.974	-13.9	93	0.00
70 T	Styrene	50.000	58.498	-17.0	95	0.00
71 P	Bromoform	50.000	51.808	-3.6	90	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	83	0.00
73 T	Isopropylbenzene	50.000	57.659	-15.3	95	0.00
74 T	N-amyl acetate	50.000	46.960	6.1	80	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	49.896	0.2	90	0.00
76 T	1,2,3-Trichloropropane	50.000	48.121	3.8	82	0.00
77 T	Bromobenzene	50.000	53.619	-7.2	93	0.00
78 T	n-propylbenzene	50.000	58.345	-16.7	95	0.00
79 T	2-Chlorotoluene	50.000	56.111	-12.2	94	0.00
80 T	1,3,5-Trimethylbenzene	50.000	58.376	-16.8	96	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	49.275	1.5	87	0.00
82 T	4-Chlorotoluene	50.000	56.726	-13.5	95	0.00
83 T	tert-Butylbenzene	50.000	57.159	-14.3	93	0.00
84 T	1,2,4-Trimethylbenzene	50.000	57.979	-16.0	95	0.00
85 T	sec-Butylbenzene	50.000	58.135	-16.3	95	0.00
86 T	p-Isopropyltoluene	50.000	58.647	-17.3	95	0.00
87 T	1,3-Dichlorobenzene	50.000	55.008	-10.0	94	0.00
88 T	1,4-Dichlorobenzene	50.000	53.509	-7.0	93	0.00
89 T	n-Butylbenzene	50.000	58.544	-17.1	95	0.00
90 T	Hexachloroethane	50.000	57.092	-14.2	98	0.00
91 T	1,2-Dichlorobenzene	50.000	53.941	-7.9	93	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	46.217	7.6	82	0.00
93 T	1,2,4-Trichlorobenzene	50.000	51.453	-2.9	87	0.00
94 T	Hexachlorobutadiene	50.000	54.993	-10.0	92	0.00
95 T	Naphthalene	50.000	47.790	4.4	81	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023481.D
Acq On : 16 Oct 2025 09:12
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Oct 17 01:50:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	50.229	-0.5	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



QC SAMPLE DATA

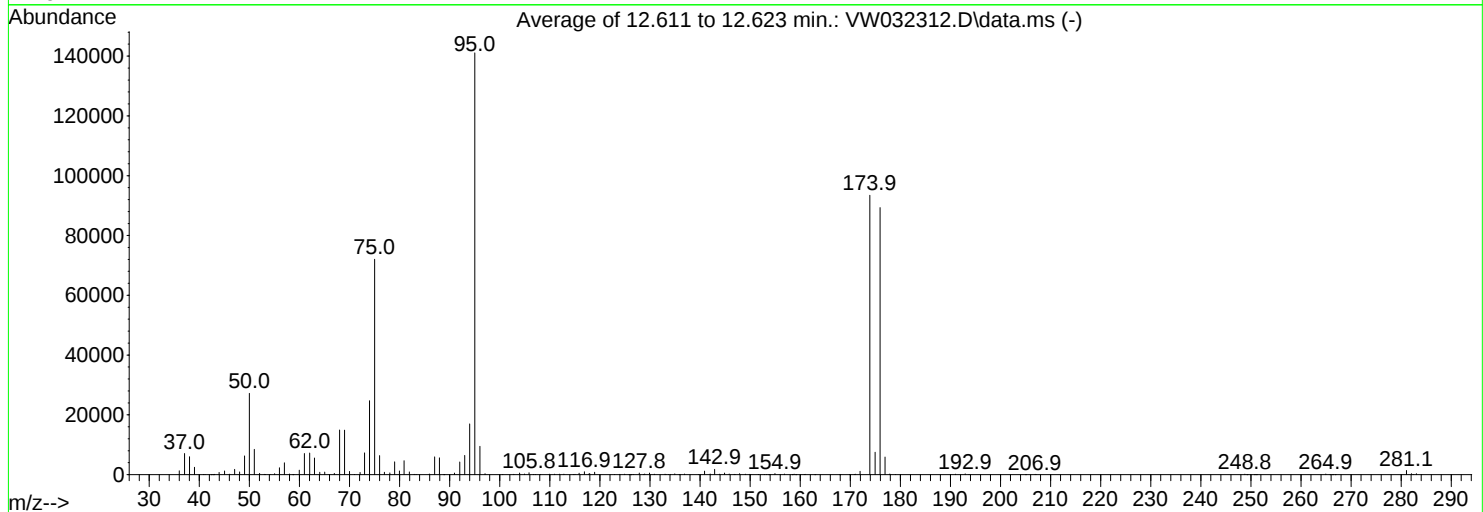
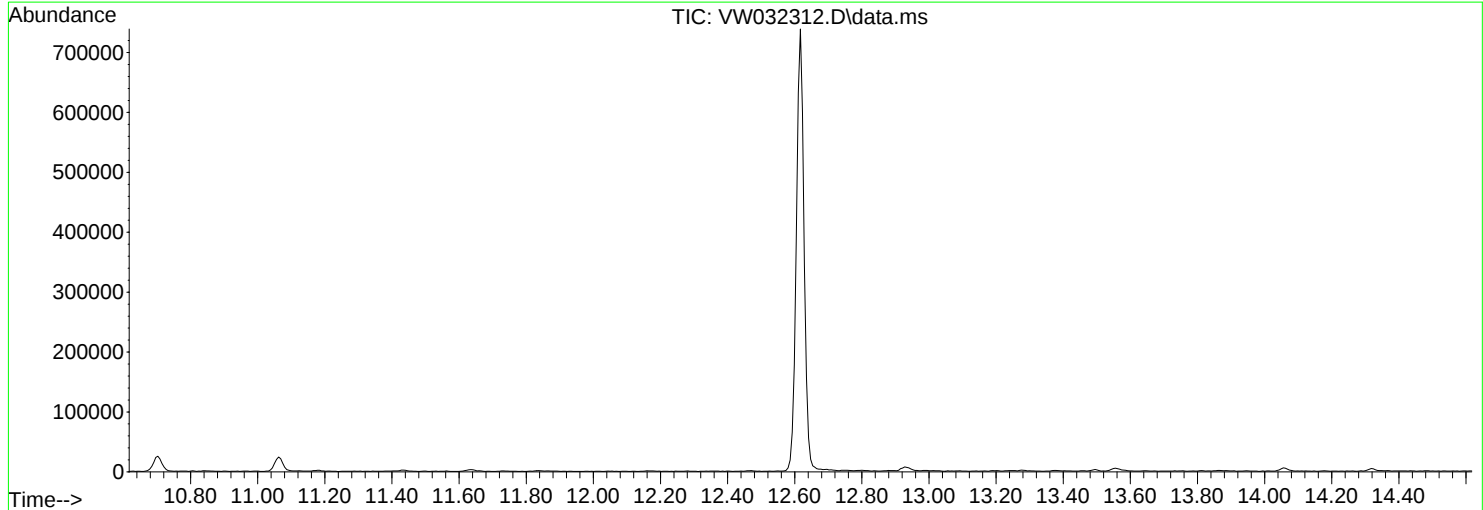
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW100125\
Data File : VW032312.D
Acq On : 01 Oct 2025 08:12
Operator : SY/MD
Sample : BFB
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Title : SW846 8260
Last Update : Thu Oct 02 21:24:16 2025



AutoFind: Scans 1759, 1760, 1761; Background Corrected with Scan 1750

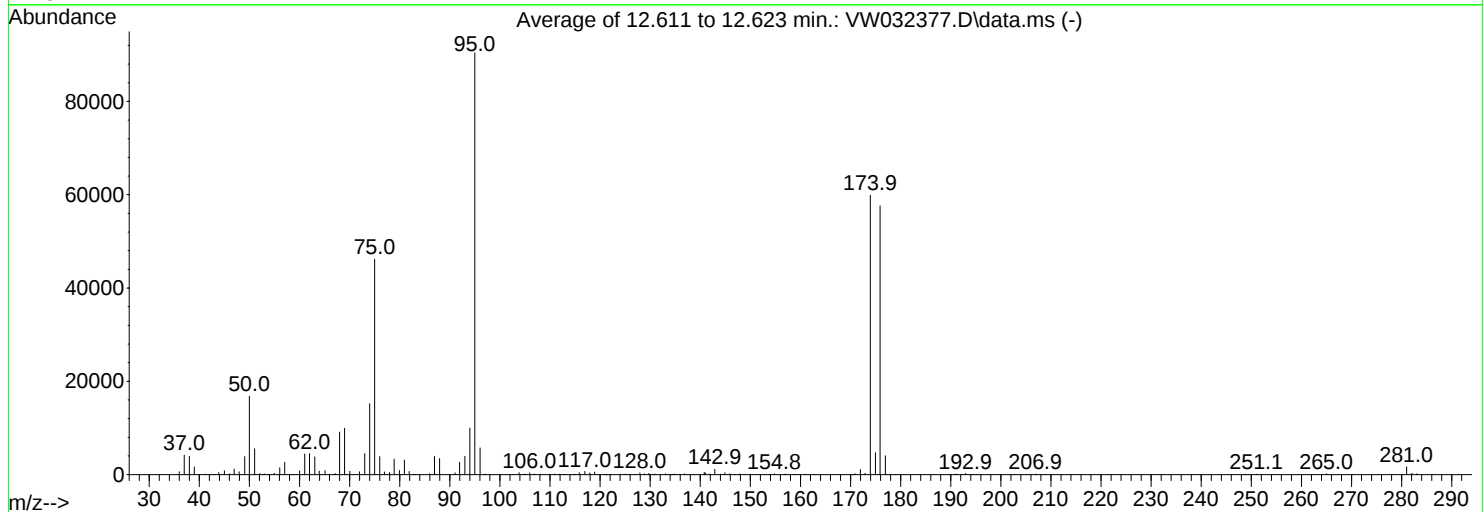
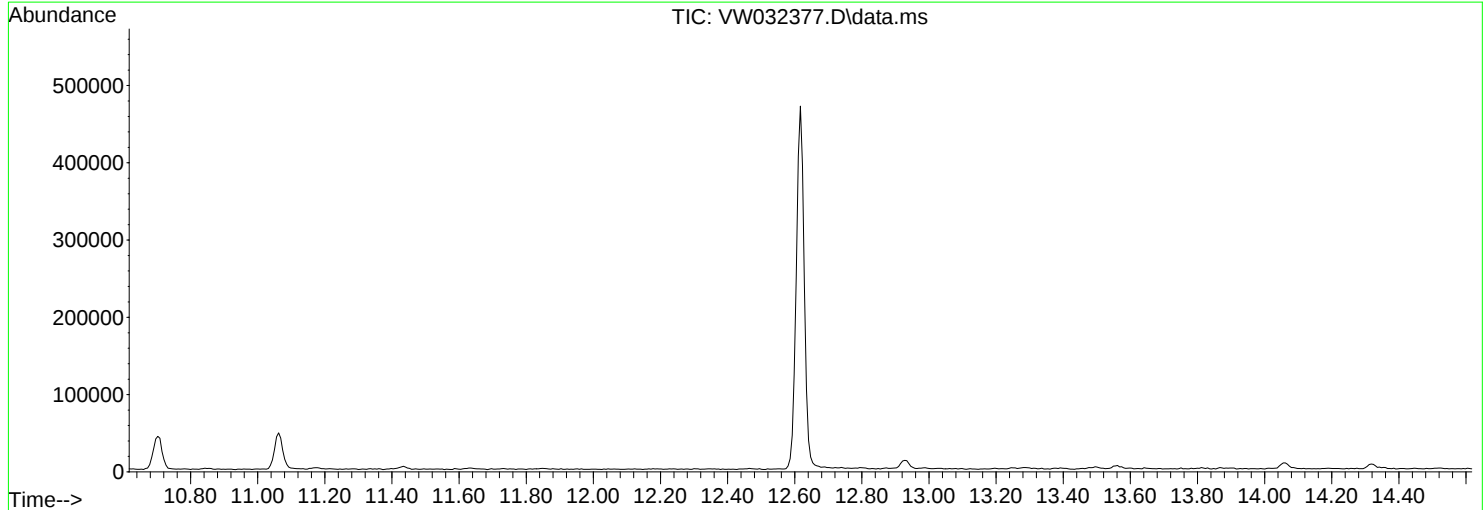
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	19.3	27221	PASS
75	95	30	60	51.1	72061	PASS
95	95	100	100	100.0	141091	PASS
96	95	5	9	6.7	9491	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.2	93424	PASS
175	174	5	9	8.0	7516	PASS
176	174	95	101	95.6	89325	PASS
177	176	5	9	6.6	5907	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032377.D
Acq On : 20 Oct 2025 09:36
Operator : SY/MD
Sample : BFB
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Title : SW846 8260
Last Update : Thu Oct 02 21:24:16 2025



AutoFind: Scans 1759, 1760, 1761; Background Corrected with Scan 1749

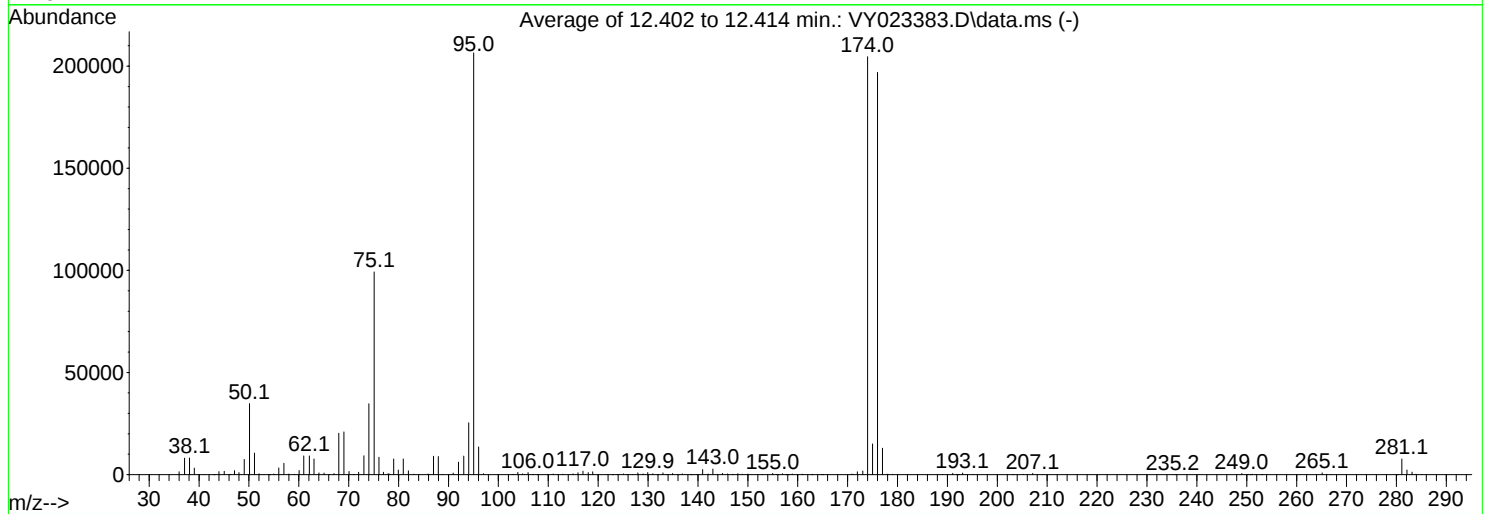
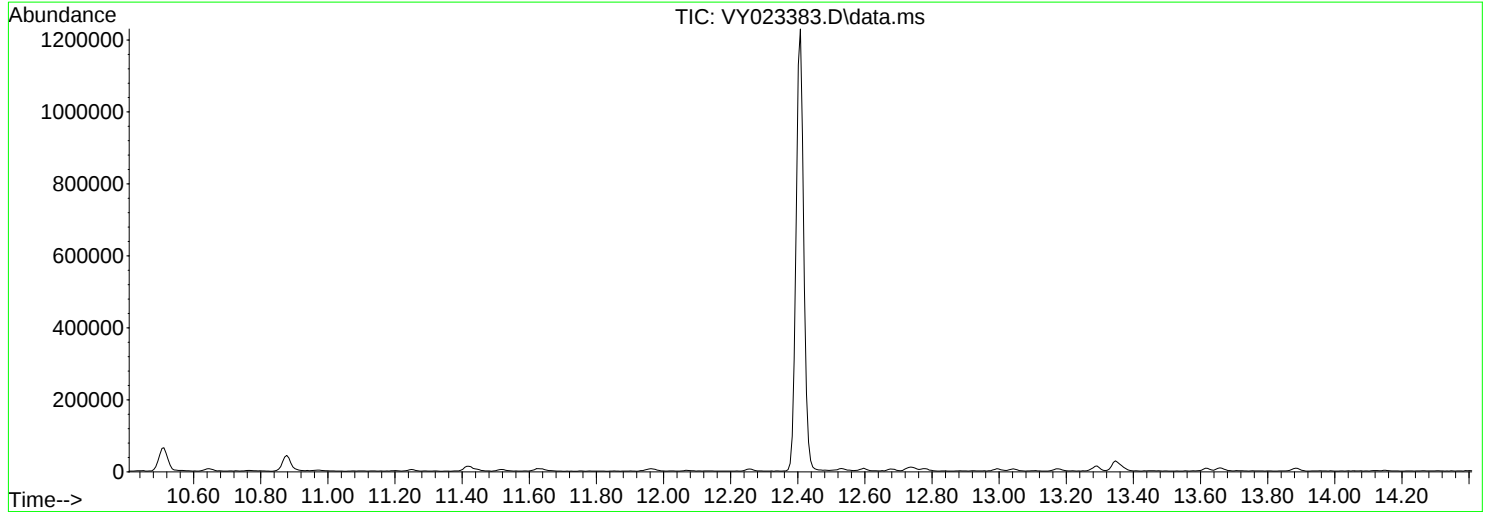
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	18.6	16809	PASS
75	95	30	60	51.1	46188	PASS
95	95	100	100	100.0	90408	PASS
96	95	5	9	6.3	5736	PASS
173	174	0.00	2	0.5	276	PASS
174	95	50	100	66.2	59875	PASS
175	174	5	9	7.8	4687	PASS
176	174	95	101	96.2	57613	PASS
177	176	5	9	7.0	4059	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY100725\
Data File : VY023383.D
Acq On : 07 Oct 2025 08:43
Operator : SY/MD
Sample : BFB
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Title : SW846 8260
Last Update : Wed Oct 08 05:12:50 2025



AutoFind: Scans 1752, 1753, 1754; Background Corrected with Scan 1743

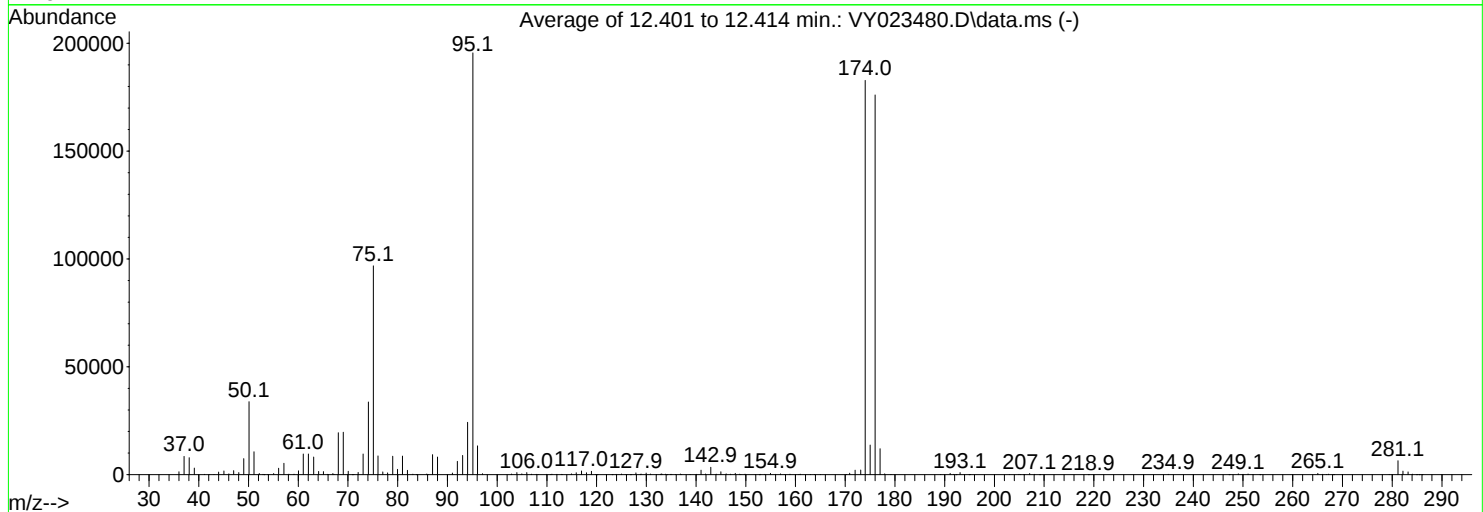
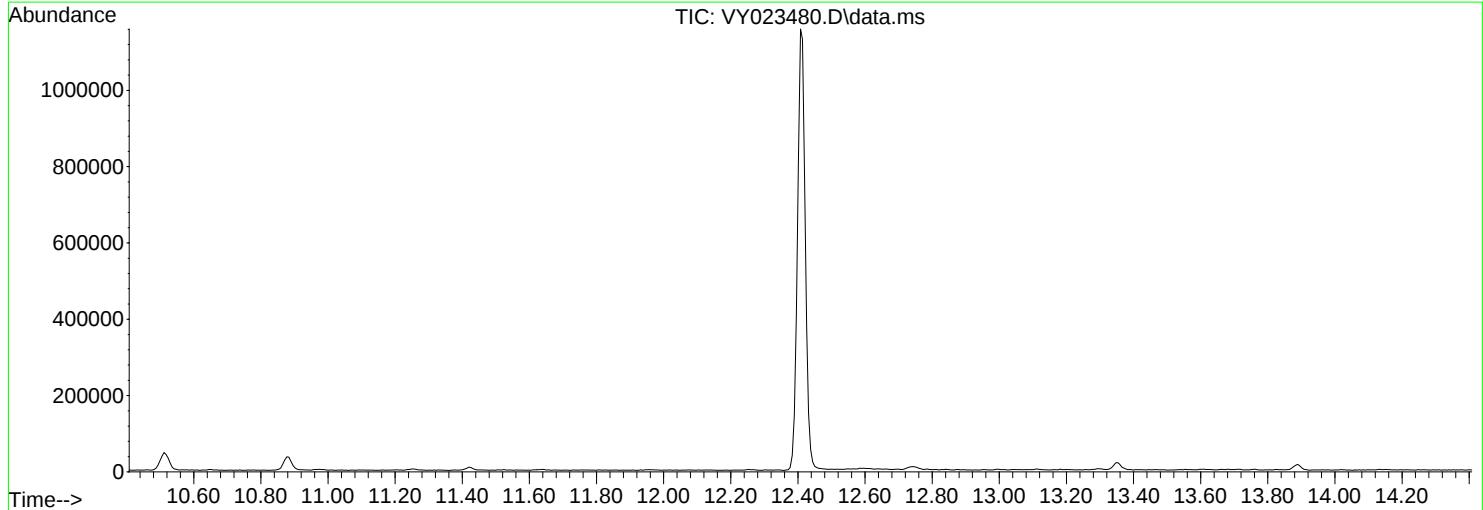
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	16.9	34816	PASS
75	95	30	60	48.1	99264	PASS
95	95	100	100	100.0	206507	PASS
96	95	5	9	6.6	13540	PASS
173	174	0.00	2	0.9	1817	PASS
174	95	50	100	99.1	204629	PASS
175	174	5	9	7.4	15059	PASS
176	174	95	101	96.2	196949	PASS
177	176	5	9	6.6	12912	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023480.D
Acq On : 16 Oct 2025 08:42
Operator : SY/MD
Sample : BFB
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Title : SW846 8260
Last Update : Wed Oct 08 05:12:50 2025



AutoFind: Scans 1752, 1753, 1754; Background Corrected with Scan 1743

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	17.3	33848	PASS
75	95	30	60	49.5	96832	PASS
95	95	100	100	100.0	195584	PASS
96	95	5	9	6.8	13343	PASS
173	174	0.00	2	1.2	2180	PASS
174	95	50	100	93.5	182827	PASS
175	174	5	9	7.5	13746	PASS
176	174	95	101	96.3	176048	PASS
177	176	5	9	6.8	12054	PASS

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: VW1020SBL01
 Lab Sample ID: VW1020SBL01
 Analytical Method: 8260D
 Sample Wt/Vol: 5 g

Level : LOW
 Final Vol: 5000 uL

Date Collected:
 Date Received:
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 100
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	5.00	U	1	1.10	5.00	ug/Kg	10/20/25 11:11	VW102025
74-87-3	Chloromethane	5.00	U	1	1.10	5.00	ug/Kg	10/20/25 11:11	VW102025
75-01-4	Vinyl Chloride	5.00	U	1	0.79	5.00	ug/Kg	10/20/25 11:11	VW102025
74-83-9	Bromomethane	5.00	U	1	1.10	5.00	ug/Kg	10/20/25 11:11	VW102025
75-00-3	Chloroethane	5.00	U	1	1.30	5.00	ug/Kg	10/20/25 11:11	VW102025
75-69-4	Trichlorofluoromethane	5.00	U	1	1.20	5.00	ug/Kg	10/20/25 11:11	VW102025
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	1	1.10	5.00	ug/Kg	10/20/25 11:11	VW102025
75-35-4	1,1-Dichloroethene	5.00	U	1	1.00	5.00	ug/Kg	10/20/25 11:11	VW102025
67-64-1	Acetone	25.0	U	1	4.70	25.0	ug/Kg	10/20/25 11:11	VW102025
75-15-0	Carbon Disulfide	5.00	U	1	1.10	5.00	ug/Kg	10/20/25 11:11	VW102025
1634-04-4	Methyl tert-butyl Ether	5.00	U	1	0.73	5.00	ug/Kg	10/20/25 11:11	VW102025
79-20-9	Methyl Acetate	5.00	U	1	1.50	5.00	ug/Kg	10/20/25 11:11	VW102025
75-09-2	Methylene Chloride	10.0	U	1	3.50	10.0	ug/Kg	10/20/25 11:11	VW102025
156-60-5	trans-1,2-Dichloroethene	5.00	U	1	0.86	5.00	ug/Kg	10/20/25 11:11	VW102025
75-34-3	1,1-Dichloroethane	5.00	U	1	0.80	5.00	ug/Kg	10/20/25 11:11	VW102025
110-82-7	Cyclohexane	5.00	U	1	0.79	5.00	ug/Kg	10/20/25 11:11	VW102025
78-93-3	2-Butanone	25.0	U	1	6.50	25.0	ug/Kg	10/20/25 11:11	VW102025
56-23-5	Carbon Tetrachloride	5.00	U	1	0.97	5.00	ug/Kg	10/20/25 11:11	VW102025
156-59-2	cis-1,2-Dichloroethene	5.00	U	1	0.75	5.00	ug/Kg	10/20/25 11:11	VW102025
74-97-5	Bromochloromethane	5.00	U	1	1.20	5.00	ug/Kg	10/20/25 11:11	VW102025
67-66-3	Chloroform	5.00	U	1	0.84	5.00	ug/Kg	10/20/25 11:11	VW102025
71-55-6	1,1,1-Trichloroethane	5.00	U	1	0.93	5.00	ug/Kg	10/20/25 11:11	VW102025
108-87-2	Methylcyclohexane	5.00	U	1	0.91	5.00	ug/Kg	10/20/25 11:11	VW102025
71-43-2	Benzene	5.00	U	1	0.79	5.00	ug/Kg	10/20/25 11:11	VW102025
107-06-2	1,2-Dichloroethane	5.00	U	1	0.79	5.00	ug/Kg	10/20/25 11:11	VW102025
79-01-6	Trichloroethene	5.00	U	1	0.81	5.00	ug/Kg	10/20/25 11:11	VW102025
78-87-5	1,2-Dichloropropane	5.00	U	1	0.91	5.00	ug/Kg	10/20/25 11:11	VW102025
75-27-4	Bromodichloromethane	5.00	U	1	0.78	5.00	ug/Kg	10/20/25 11:11	VW102025
108-10-1	4-Methyl-2-Pentanone	25.0	U	1	3.60	25.0	ug/Kg	10/20/25 11:11	VW102025
108-88-3	Toluene	5.00	U	1	0.78	5.00	ug/Kg	10/20/25 11:11	VW102025
10061-02-6	t-1,3-Dichloropropene	5.00	U	1	0.65	5.00	ug/Kg	10/20/25 11:11	VW102025
10061-01-5	cis-1,3-Dichloropropene	5.00	U	1	0.62	5.00	ug/Kg	10/20/25 11:11	VW102025
79-00-5	1,1,2-Trichloroethane	5.00	U	1	0.92	5.00	ug/Kg	10/20/25 11:11	VW102025
591-78-6	2-Hexanone	25.0	U	1	3.70	25.0	ug/Kg	10/20/25 11:11	VW102025
124-48-1	Dibromochloromethane	5.00	U	1	0.87	5.00	ug/Kg	10/20/25 11:11	VW102025
106-93-4	1,2-Dibromoethane	5.00	U	1	0.88	5.00	ug/Kg	10/20/25 11:11	VW102025
127-18-4	Tetrachloroethene	5.00	U	1	1.10	5.00	ug/Kg	10/20/25 11:11	VW102025
108-90-7	Chlorobenzene	5.00	U	1	0.91	5.00	ug/Kg	10/20/25 11:11	VW102025
100-41-4	Ethyl Benzene	5.00	U	1	0.67	5.00	ug/Kg	10/20/25 11:11	VW102025
179601-23-1	m/p-Xylenes	10.0	U	1	1.20	10.0	ug/Kg	10/20/25 11:11	VW102025
95-47-6	o-Xylene	5.00	U	1	0.82	5.00	ug/Kg	10/20/25 11:11	VW102025
100-42-5	Styrene	5.00	U	1	0.71	5.00	ug/Kg	10/20/25 11:11	VW102025
75-25-2	Bromoform	5.00	U	1	0.86	5.00	ug/Kg	10/20/25 11:11	VW102025

Report of Analysis

Client:	AECOM	Date Collected:	
Project:	AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206	Date Received:	
Client Sample ID:	VW1020SBL01	SDG No.:	Q3363
Lab Sample ID:	VW1020SBL01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5 g	Test:	VOC-TCLVOA-10
	Level : LOW		
	Final Vol: 5000 uL		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	5.00	U	1	0.78	5.00	ug/Kg	10/20/25 11:11	VW102025
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1	1.20	5.00	ug/Kg	10/20/25 11:11	VW102025
541-73-1	1,3-Dichlorobenzene	5.00	U	1	1.70	5.00	ug/Kg	10/20/25 11:11	VW102025
106-46-7	1,4-Dichlorobenzene	5.00	U	1	1.60	5.00	ug/Kg	10/20/25 11:11	VW102025
95-50-1	1,2-Dichlorobenzene	5.00	U	1	1.50	5.00	ug/Kg	10/20/25 11:11	VW102025
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1	1.80	5.00	ug/Kg	10/20/25 11:11	VW102025
120-82-1	1,2,4-Trichlorobenzene	5.00	U	1	3.00	5.00	ug/Kg	10/20/25 11:11	VW102025
87-61-6	1,2,3-Trichlorobenzene	5.00	U	1	3.20	5.00	ug/Kg	10/20/25 11:11	VW102025
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	65.7			63 - 155	131%	SPK: 50		
1868-53-7	Dibromofluoromethane	58.2			70 - 134	116%	SPK: 50		
2037-26-5	Toluene-d8	54.5			74 - 123	109%	SPK: 50		
460-00-4	4-Bromofluorobenzene	51.8			17 - 146	104%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	172000							
540-36-3	1,4-Difluorobenzene	393000							
3114-55-4	Chlorobenzene-d5	401000							
3855-82-1	1,4-Dichlorobenzene-d4	189000							

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032379.D
Acq On : 20 Oct 2025 11:11
Operator : SY/MD
Sample : VW1020SBL01
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

Quant Time: Oct 21 01:23:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.959	168	172114	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.849	114	392797	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	400571	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	188560	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.319	65	164963	65.712	ug/l	0.00
Spiked Amount	50.000	Range	63 - 155	Recovery	=	131.420%
35) Dibromofluoromethane	7.898	113	148107	58.223	ug/l	0.00
Spiked Amount	50.000	Range	70 - 134	Recovery	=	116.440%
50) Toluene-d8	10.325	98	512060	54.541	ug/l	0.00
Spiked Amount	50.000	Range	74 - 123	Recovery	=	109.080%
62) 4-Bromofluorobenzene	12.617	95	183742	51.779	ug/l	0.00
Spiked Amount	50.000	Range	17 - 146	Recovery	=	103.560%

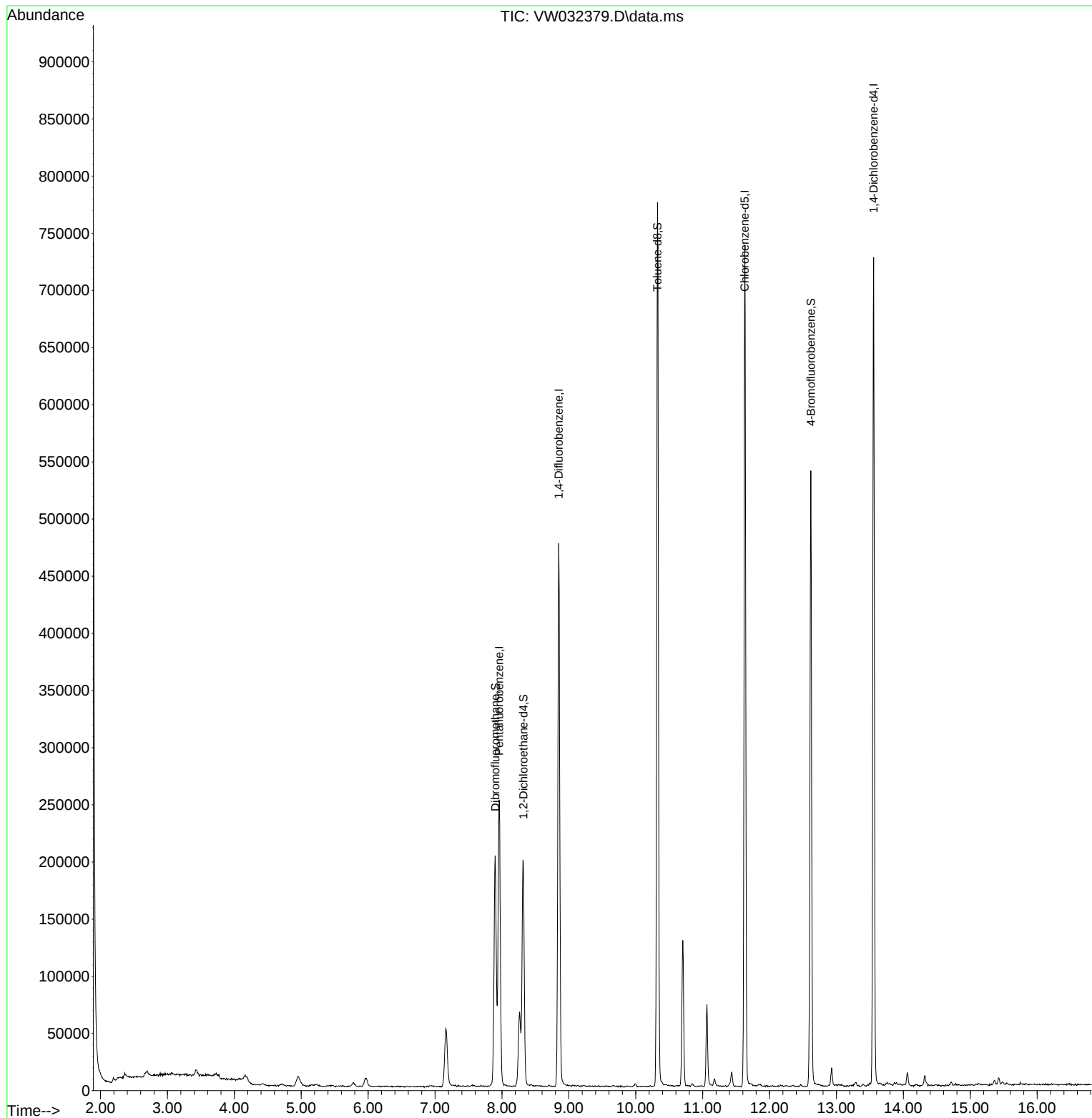
Target Compounds	Qvalue

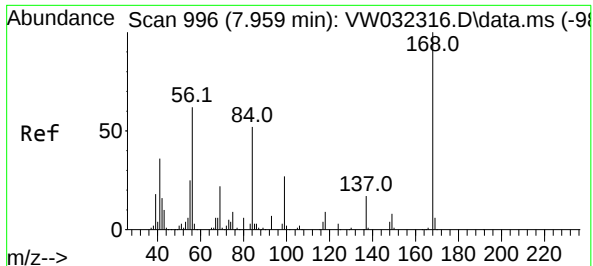
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032379.D
Acq On : 20 Oct 2025 11:11
Operator : SY/MD
Sample : VW1020SBL01
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

Quant Time: Oct 21 01:23:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

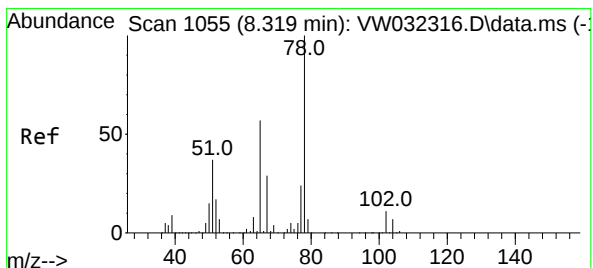
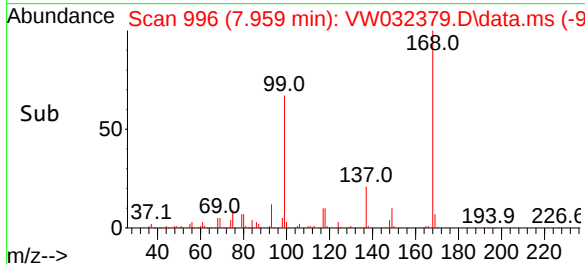
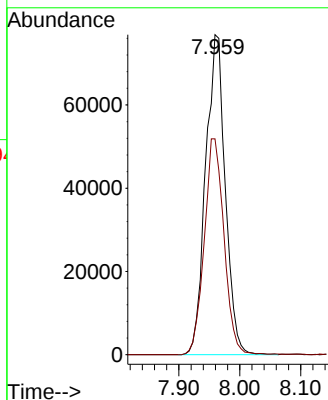
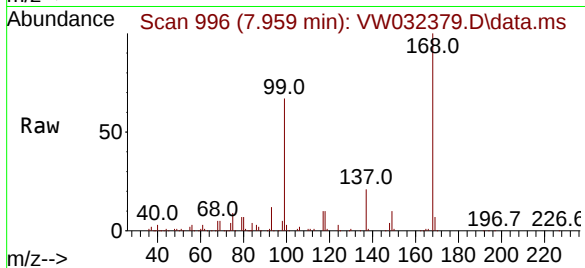




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.959 min Scan# 996
Delta R.T. -0.006 min
Lab File: VW032379.D
Acq: 20 Oct 2025 11:11

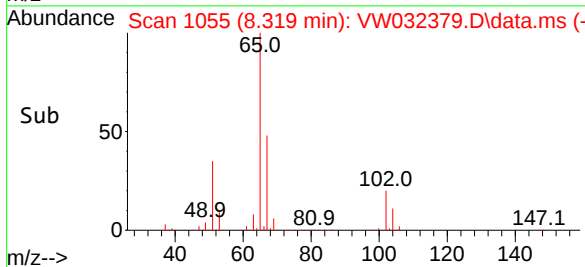
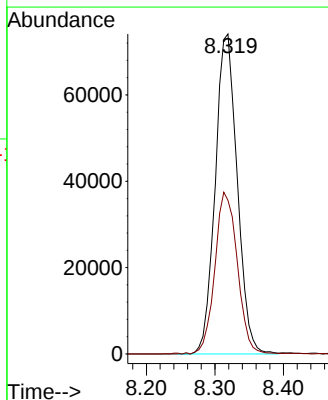
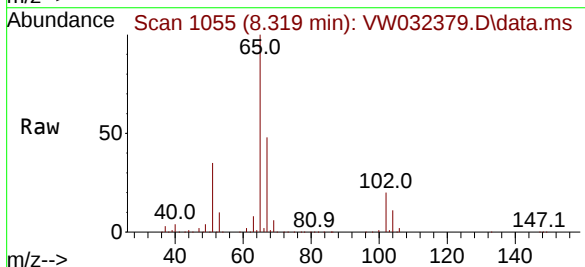
Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

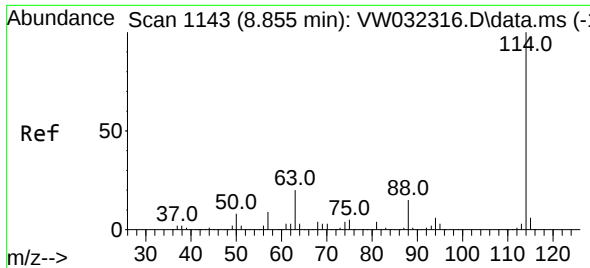
Tgt Ion:168 Resp: 172114
Ion Ratio Lower Upper
168 100
99 67.4 49.3 73.9



#33
1,2-Dichloroethane-d4
Concen: 65.712 ug/l
RT: 8.319 min Scan# 1055
Delta R.T. 0.000 min
Lab File: VW032379.D
Acq: 20 Oct 2025 11:11

Tgt Ion: 65 Resp: 164963
Ion Ratio Lower Upper
65 100
67 51.7 0.0 99.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.849 min Scan# 1143

Delta R.T. -0.006 min

Lab File: VW032379.D

Acq: 20 Oct 2025 11:11

Instrument :

MSVOA_W

ClientSampleId :

VW1020SBL01

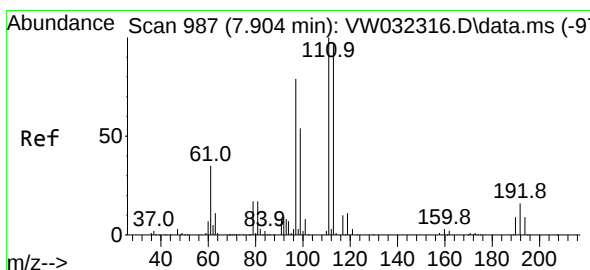
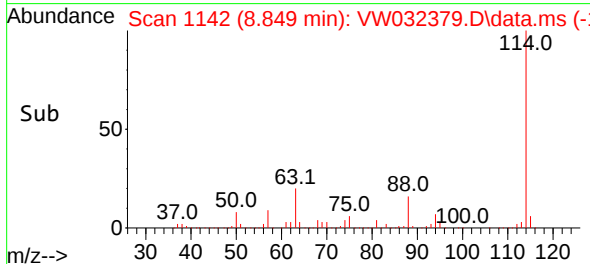
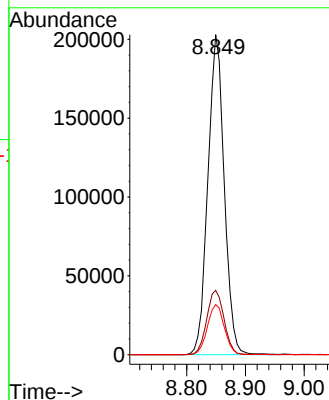
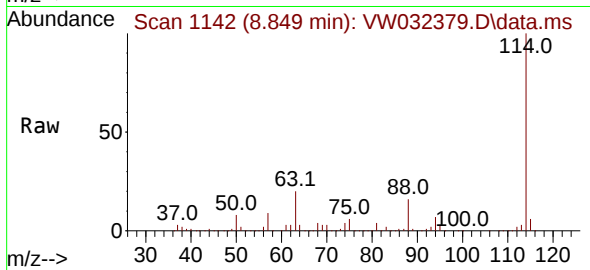
Tgt Ion:114 Resp: 392797

Ion Ratio Lower Upper

114 100

63 20.1 0.0 40.4

88 15.6 0.0 32.0



#35

Dibromofluoromethane

Concen: 58.223 ug/l

RT: 7.898 min Scan# 986

Delta R.T. -0.006 min

Lab File: VW032379.D

Acq: 20 Oct 2025 11:11

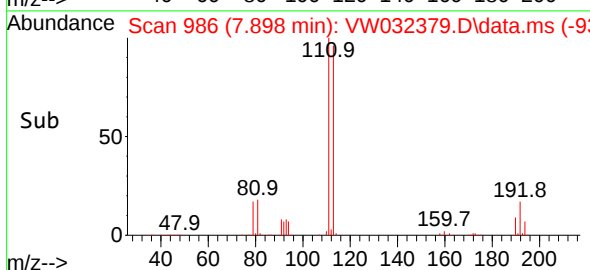
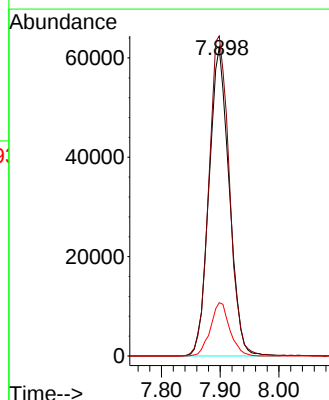
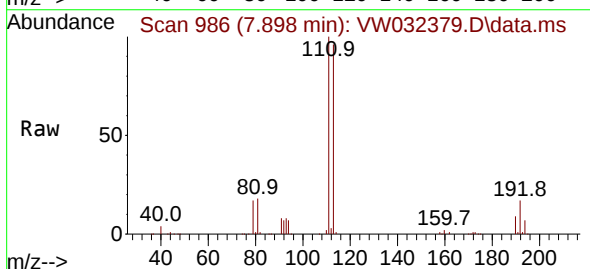
Tgt Ion:113 Resp: 148107

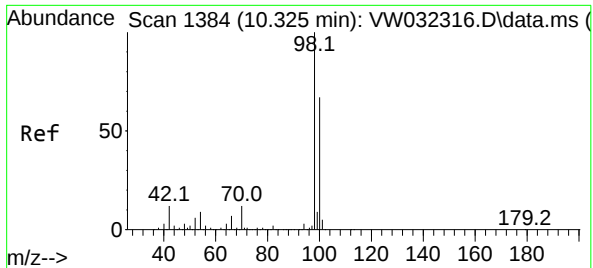
Ion Ratio Lower Upper

113 100

111 105.1 83.9 125.9

192 16.6 14.6 21.8

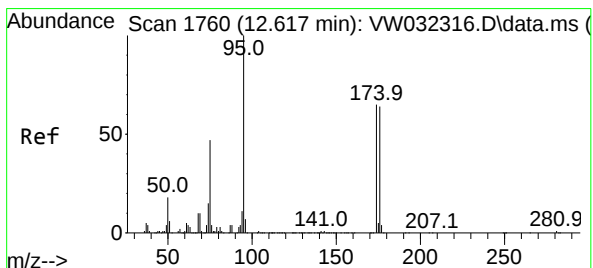
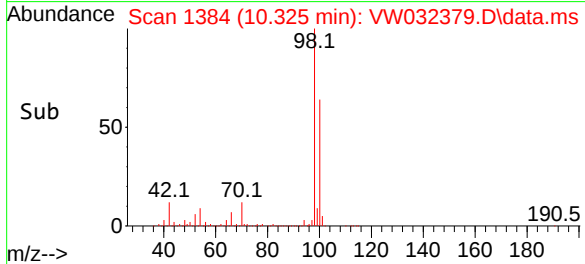
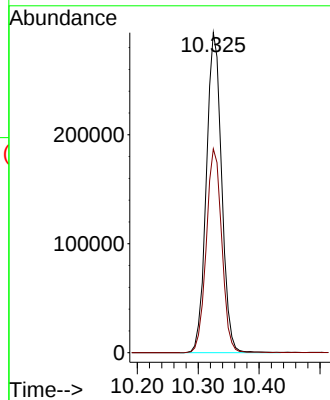
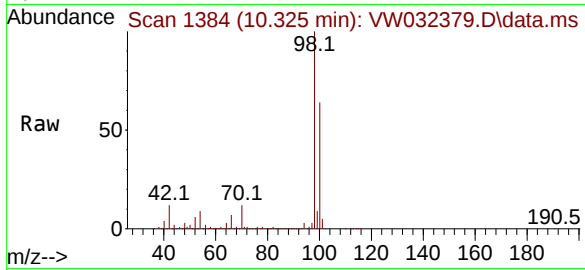




#50
Toluene-d8
Concen: 54.541 ug/l
RT: 10.325 min Scan# 11
Delta R.T. 0.000 min
Lab File: VW032379.D
Acq: 20 Oct 2025 11:11

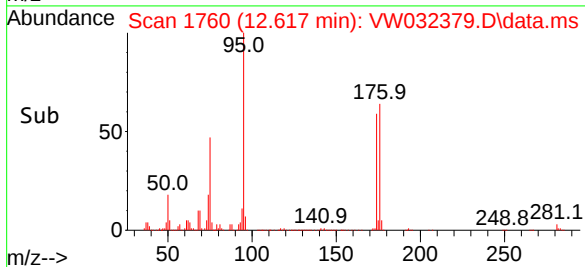
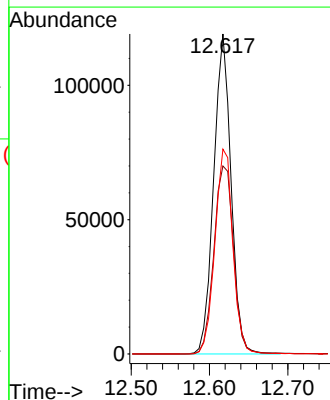
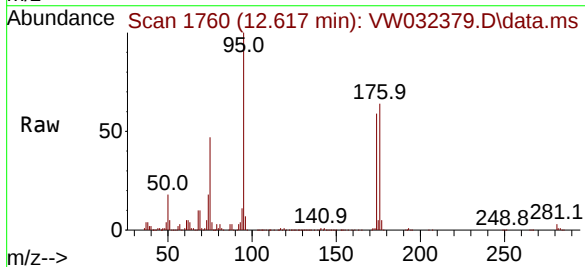
Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

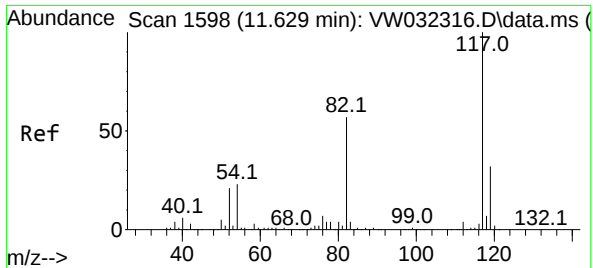
Tgt Ion: 98 Resp: 512060
Ion Ratio Lower Upper
98 100
100 64.3 51.4 77.2



#62
4-Bromofluorobenzene
Concen: 51.779 ug/l
RT: 12.617 min Scan# 1760
Delta R.T. 0.000 min
Lab File: VW032379.D
Acq: 20 Oct 2025 11:11

Tgt Ion: 95 Resp: 183742
Ion Ratio Lower Upper
95 100
174 66.6 0.0 145.6
176 66.5 0.0 140.8

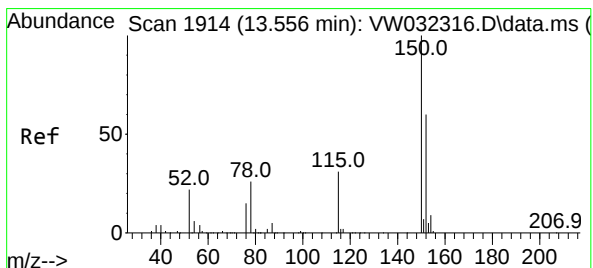
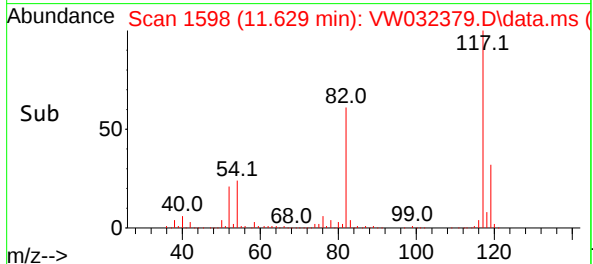
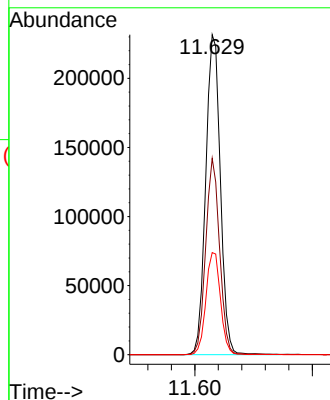
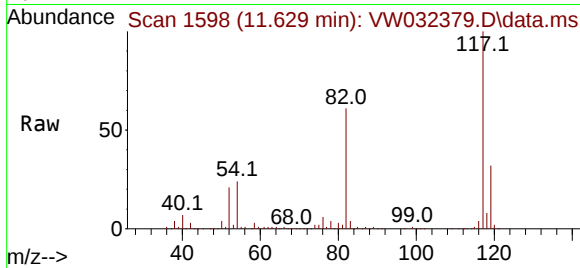




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.629 min Scan# 11
Delta R.T. 0.000 min
Lab File: VW032379.D
Acq: 20 Oct 2025 11:11

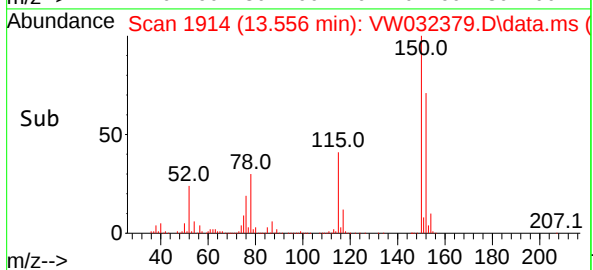
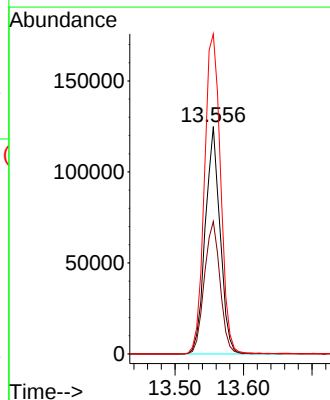
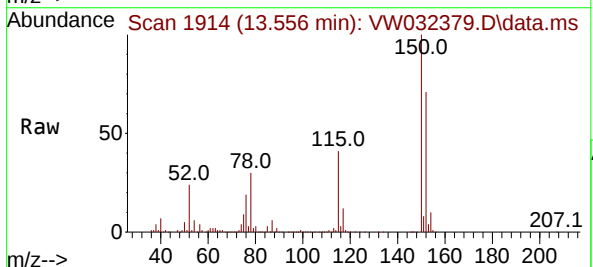
Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

Tgt Ion	Ratio	Lower	Upper
117	100		
82	61.4	42.7	64.1
119	31.9	25.2	37.8



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.556 min Scan# 1914
Delta R.T. 0.000 min
Lab File: VW032379.D
Acq: 20 Oct 2025 11:11

Tgt Ion	Ratio	Lower	Upper
152	100		
115	61.8	31.8	95.4
150	153.1	0.0	343.0



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032379.D
Acq On : 20 Oct 2025 11:11
Operator : SY/MD
Sample : VW1020SBL01
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_W\Method\82W100125S.M

Title : SW846 8260

Signal : TIC: VW032379.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.698	124	133	143	rBV	5338	20772	1.52%	0.259%
2	4.954	490	503	514	rBV4	8460	34850	2.55%	0.434%
3	5.960	660	668	679	rBV6	7373	25495	1.87%	0.318%
4	7.161	855	865	879	rBV	50860	152704	11.17%	1.902%
5	7.898	972	986	991	rBV	201590	493964	36.14%	6.152%
6	7.959	991	996	1007	rVB2	249823	559899	40.97%	6.973%
7	8.264	1035	1046	1049	rBV	65149	158907	11.63%	1.979%
8	8.313	1049	1054	1069	rVB	197176	455083	33.30%	5.667%
9	8.849	1133	1142	1161	rBV	475057	956860	70.01%	11.916%
10	10.325	1375	1384	1399	rBV	772994	1366655	100.00%	17.020%
11	10.703	1437	1446	1454	rBV	127501	233716	17.10%	2.911%
12	11.062	1497	1505	1518	rBV	71876	126126	9.23%	1.571%
13	11.434	1554	1566	1574	rBV3	12762	28993	2.12%	0.361%
14	11.629	1589	1598	1608	rBV	735778	1259554	92.16%	15.686%
15	12.617	1750	1760	1771	rBV	538778	919358	67.27%	11.449%
16	12.928	1806	1811	1818	rVB2	15513	24399	1.79%	0.304%
17	13.556	1907	1914	1926	rVB	723062	1170596	85.65%	14.578%
18	14.056	1991	1996	2007	rVB	11711	22497	1.65%	0.280%
19	14.318	2032	2039	2047	rVB3	9025	19376	1.42%	0.241%

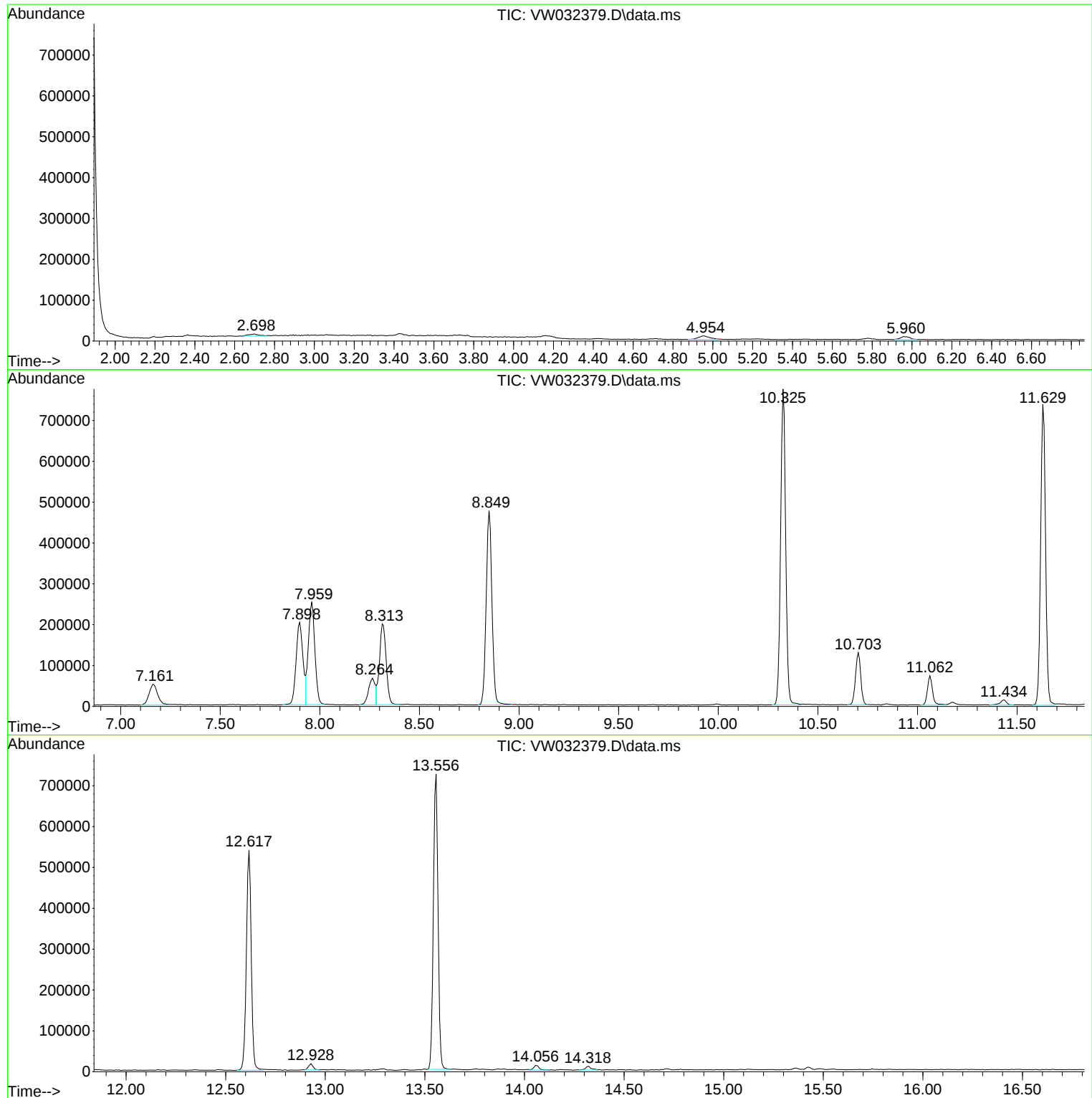
Sum of corrected areas: 8029804

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032379.D
Acq On : 20 Oct 2025 11:11
Operator : SY/MD
Sample : VW1020SBL01
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032379.D
Acq On : 20 Oct 2025 11:11
Operator : SY/MD
Sample : VW1020SBL01
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032379.D
Acq On : 20 Oct 2025 11:11
Operator : SY/MD
Sample : VW1020SBL01
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_W
ClientSampleId :
VW1020SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST0.L
TIC Integration Parameters: LSCINT.P

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

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: VY1016SBL01
 Lab Sample ID: VY1016SBL01
 Analytical Method: 8260D
 Sample Wt/Vol: 5 g

Level : LOW
 Final Vol: 5000 uL

Date Collected:
 Date Received:
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 100
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	5.00	U	1	1.10	5.00	ug/Kg	10/16/25 09:46	VY101625
74-87-3	Chloromethane	5.00	U	1	1.10	5.00	ug/Kg	10/16/25 09:46	VY101625
75-01-4	Vinyl Chloride	5.00	U	1	0.79	5.00	ug/Kg	10/16/25 09:46	VY101625
74-83-9	Bromomethane	5.00	U	1	1.10	5.00	ug/Kg	10/16/25 09:46	VY101625
75-00-3	Chloroethane	5.00	U	1	1.30	5.00	ug/Kg	10/16/25 09:46	VY101625
75-69-4	Trichlorofluoromethane	5.00	U	1	1.20	5.00	ug/Kg	10/16/25 09:46	VY101625
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	1	1.10	5.00	ug/Kg	10/16/25 09:46	VY101625
75-35-4	1,1-Dichloroethene	5.00	U	1	1.00	5.00	ug/Kg	10/16/25 09:46	VY101625
67-64-1	Acetone	25.0	U	1	4.70	25.0	ug/Kg	10/16/25 09:46	VY101625
75-15-0	Carbon Disulfide	5.00	U	1	1.10	5.00	ug/Kg	10/16/25 09:46	VY101625
1634-04-4	Methyl tert-butyl Ether	5.00	U	1	0.73	5.00	ug/Kg	10/16/25 09:46	VY101625
79-20-9	Methyl Acetate	5.00	U	1	1.50	5.00	ug/Kg	10/16/25 09:46	VY101625
75-09-2	Methylene Chloride	10.0	U	1	3.50	10.0	ug/Kg	10/16/25 09:46	VY101625
156-60-5	trans-1,2-Dichloroethene	5.00	U	1	0.86	5.00	ug/Kg	10/16/25 09:46	VY101625
75-34-3	1,1-Dichloroethane	5.00	U	1	0.80	5.00	ug/Kg	10/16/25 09:46	VY101625
110-82-7	Cyclohexane	5.00	U	1	0.79	5.00	ug/Kg	10/16/25 09:46	VY101625
78-93-3	2-Butanone	25.0	U	1	6.50	25.0	ug/Kg	10/16/25 09:46	VY101625
56-23-5	Carbon Tetrachloride	5.00	U	1	0.97	5.00	ug/Kg	10/16/25 09:46	VY101625
156-59-2	cis-1,2-Dichloroethene	5.00	U	1	0.75	5.00	ug/Kg	10/16/25 09:46	VY101625
74-97-5	Bromochloromethane	5.00	U	1	1.20	5.00	ug/Kg	10/16/25 09:46	VY101625
67-66-3	Chloroform	5.00	U	1	0.84	5.00	ug/Kg	10/16/25 09:46	VY101625
71-55-6	1,1,1-Trichloroethane	5.00	U	1	0.93	5.00	ug/Kg	10/16/25 09:46	VY101625
108-87-2	Methylcyclohexane	5.00	U	1	0.91	5.00	ug/Kg	10/16/25 09:46	VY101625
71-43-2	Benzene	5.00	U	1	0.79	5.00	ug/Kg	10/16/25 09:46	VY101625
107-06-2	1,2-Dichloroethane	5.00	U	1	0.79	5.00	ug/Kg	10/16/25 09:46	VY101625
79-01-6	Trichloroethene	5.00	U	1	0.81	5.00	ug/Kg	10/16/25 09:46	VY101625
78-87-5	1,2-Dichloropropane	5.00	U	1	0.91	5.00	ug/Kg	10/16/25 09:46	VY101625
75-27-4	Bromodichloromethane	5.00	U	1	0.78	5.00	ug/Kg	10/16/25 09:46	VY101625
108-10-1	4-Methyl-2-Pentanone	25.0	U	1	3.60	25.0	ug/Kg	10/16/25 09:46	VY101625
108-88-3	Toluene	5.00	U	1	0.78	5.00	ug/Kg	10/16/25 09:46	VY101625
10061-02-6	t-1,3-Dichloropropene	5.00	U	1	0.65	5.00	ug/Kg	10/16/25 09:46	VY101625
10061-01-5	cis-1,3-Dichloropropene	5.00	U	1	0.62	5.00	ug/Kg	10/16/25 09:46	VY101625
79-00-5	1,1,2-Trichloroethane	5.00	U	1	0.92	5.00	ug/Kg	10/16/25 09:46	VY101625
591-78-6	2-Hexanone	25.0	U	1	3.70	25.0	ug/Kg	10/16/25 09:46	VY101625
124-48-1	Dibromochloromethane	5.00	U	1	0.87	5.00	ug/Kg	10/16/25 09:46	VY101625
106-93-4	1,2-Dibromoethane	5.00	U	1	0.88	5.00	ug/Kg	10/16/25 09:46	VY101625
127-18-4	Tetrachloroethene	5.00	U	1	1.10	5.00	ug/Kg	10/16/25 09:46	VY101625
108-90-7	Chlorobenzene	5.00	U	1	0.91	5.00	ug/Kg	10/16/25 09:46	VY101625
100-41-4	Ethyl Benzene	5.00	U	1	0.67	5.00	ug/Kg	10/16/25 09:46	VY101625
179601-23-1	m/p-Xylenes	10.0	U	1	1.20	10.0	ug/Kg	10/16/25 09:46	VY101625
95-47-6	o-Xylene	5.00	U	1	0.82	5.00	ug/Kg	10/16/25 09:46	VY101625
100-42-5	Styrene	5.00	U	1	0.71	5.00	ug/Kg	10/16/25 09:46	VY101625
75-25-2	Bromoform	5.00	U	1	0.86	5.00	ug/Kg	10/16/25 09:46	VY101625

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: VY1016SBL01
 Lab Sample ID: VY1016SBL01
 Analytical Method: 8260D
 Sample Wt/Vol: 5 g

Level : LOW
 Final Vol: 5000 uL

Date Collected:
 Date Received:
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 100
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	5.00	U	1	0.78	5.00	ug/Kg	10/16/25 09:46	VY101625
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1	1.20	5.00	ug/Kg	10/16/25 09:46	VY101625
541-73-1	1,3-Dichlorobenzene	5.00	U	1	1.70	5.00	ug/Kg	10/16/25 09:46	VY101625
106-46-7	1,4-Dichlorobenzene	5.00	U	1	1.60	5.00	ug/Kg	10/16/25 09:46	VY101625
95-50-1	1,2-Dichlorobenzene	5.00	U	1	1.50	5.00	ug/Kg	10/16/25 09:46	VY101625
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1	1.80	5.00	ug/Kg	10/16/25 09:46	VY101625
120-82-1	1,2,4-Trichlorobenzene	5.00	U	1	3.00	5.00	ug/Kg	10/16/25 09:46	VY101625
87-61-6	1,2,3-Trichlorobenzene	5.00	U	1	3.20	5.00	ug/Kg	10/16/25 09:46	VY101625
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	63.0			63 - 155	126%	SPK: 50		
1868-53-7	Dibromofluoromethane	55.0			70 - 134	110%	SPK: 50		
2037-26-5	Toluene-d8	53.4			74 - 123	107%	SPK: 50		
460-00-4	4-Bromofluorobenzene	53.5			17 - 146	107%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	530000							
540-36-3	1,4-Difluorobenzene	1060000							
3114-55-4	Chlorobenzene-d5	1100000							
3855-82-1	1,4-Dichlorobenzene-d4	466000							

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023482.D
Acq On : 16 Oct 2025 09:46
Operator : SY/MD
Sample : VY1016SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBL01

Quant Time: Oct 17 01:51:22 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.713	168	529968	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	1064919	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	1102445	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	465964	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	279369	63.039	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	126.080%
35) Dibromofluoromethane	7.640	113	359646	54.963	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	109.920%
50) Toluene-d8	10.109	98	1301045	53.391	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	106.780%
62) 4-Bromofluorobenzene	12.408	95	430344	53.491	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	106.980%

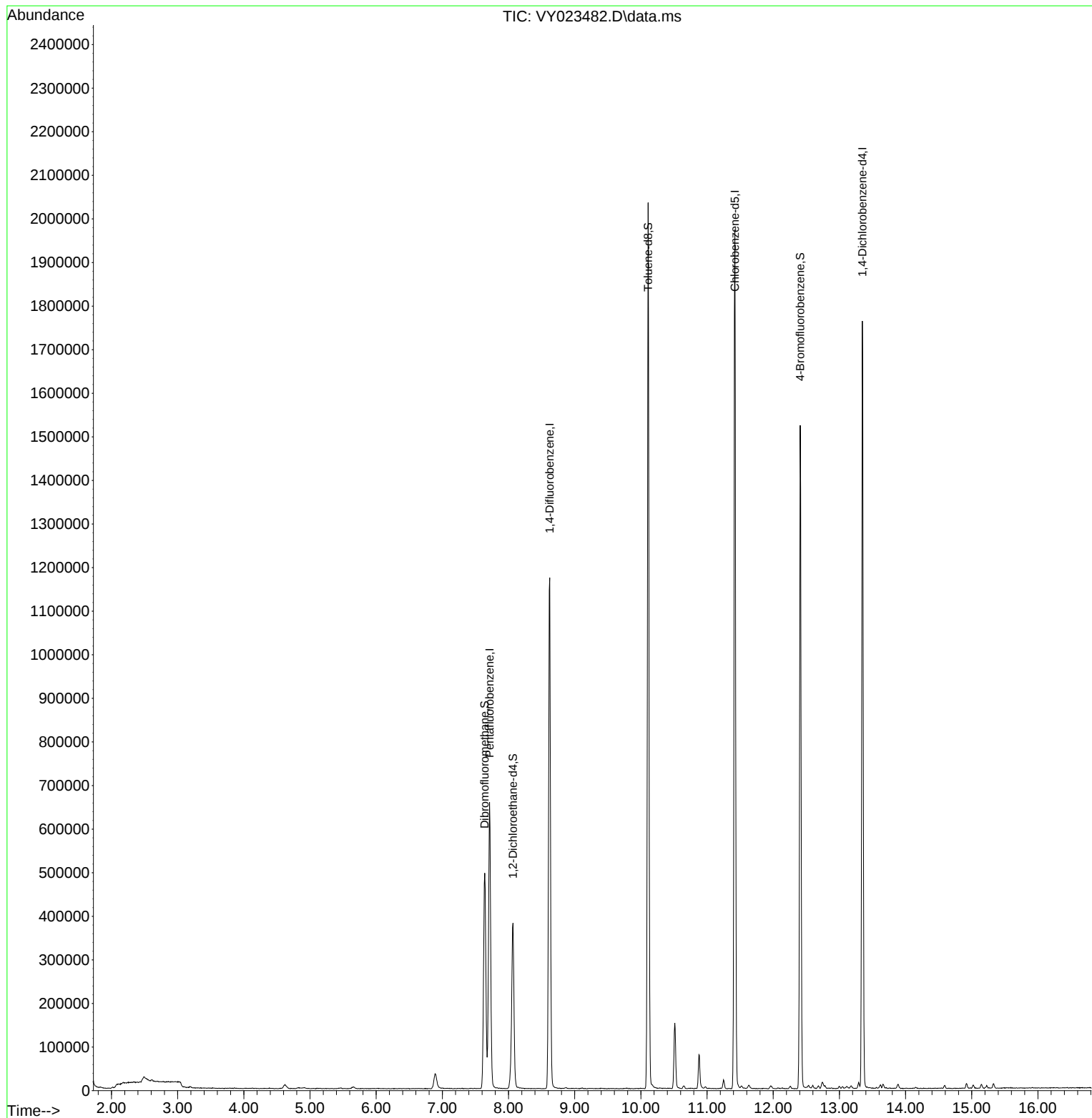
Target Compounds	Qvalue
------------------	--------

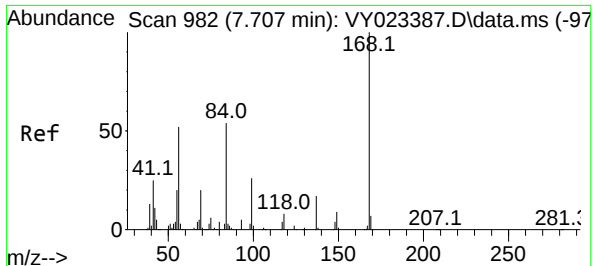
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023482.D
Acq On : 16 Oct 2025 09:46
Operator : SY/MD
Sample : VY1016SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBL01

Quant Time: Oct 17 01:51:22 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

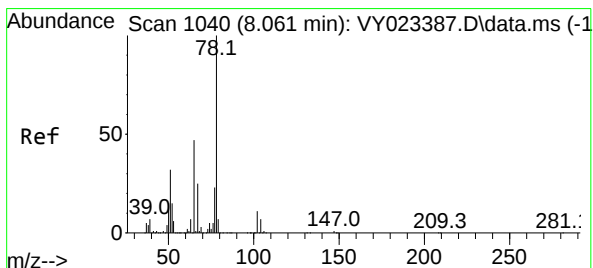
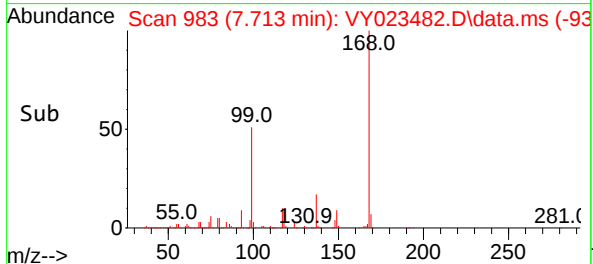
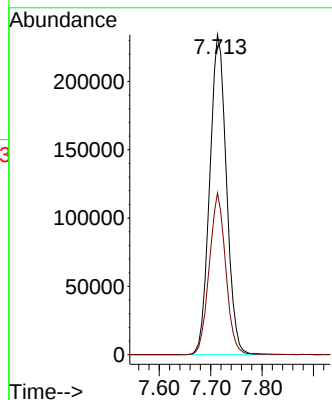
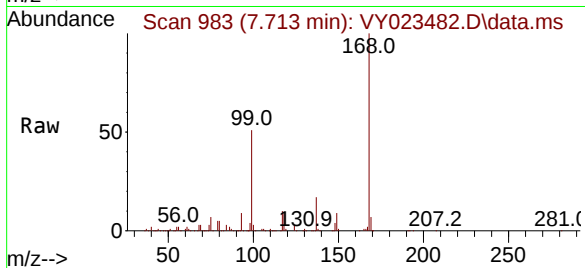




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 91
Delta R.T. 0.006 min
Lab File: VY023482.D
Acq: 16 Oct 2025 09:46

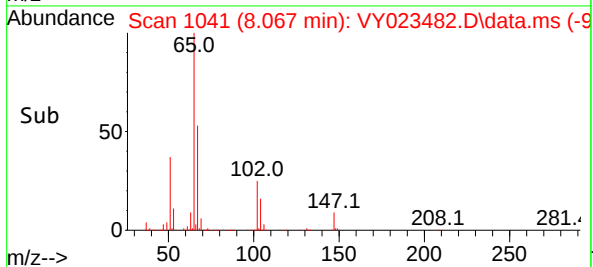
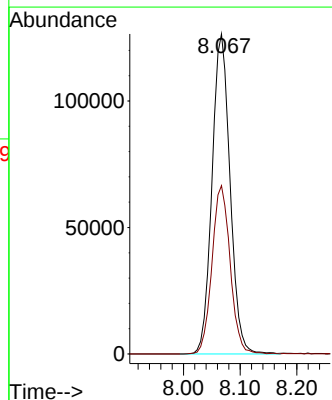
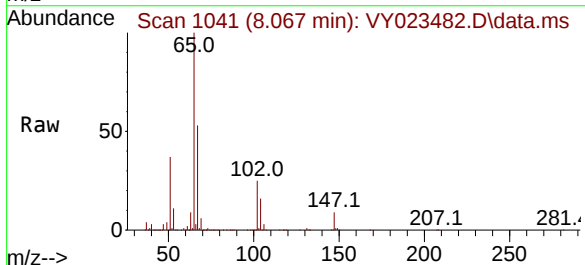
Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBL01

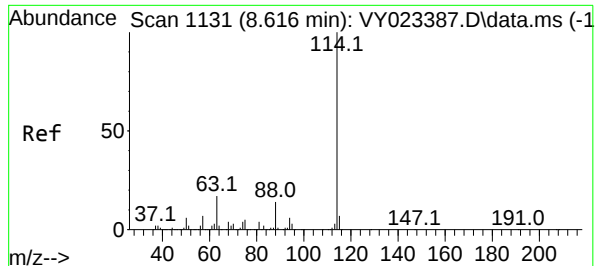
Tgt Ion:168 Resp: 529968
Ion Ratio Lower Upper
168 100
99 50.6 39.7 59.5



#33
1,2-Dichloroethane-d4
Concen: 63.039 ug/l
RT: 8.067 min Scan# 1041
Delta R.T. 0.006 min
Lab File: VY023482.D
Acq: 16 Oct 2025 09:46

Tgt Ion: 65 Resp: 279369
Ion Ratio Lower Upper
65 100
67 53.1 0.0 105.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.622 min Scan# 1131

Delta R.T. 0.006 min

Lab File: VY023482.D

Acq: 16 Oct 2025 09:46

Instrument :

MSVOA_Y

ClientSampleId :

VY1016SBL01

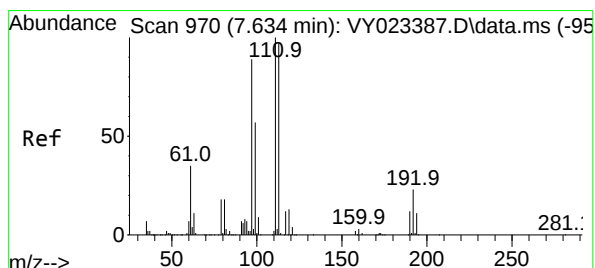
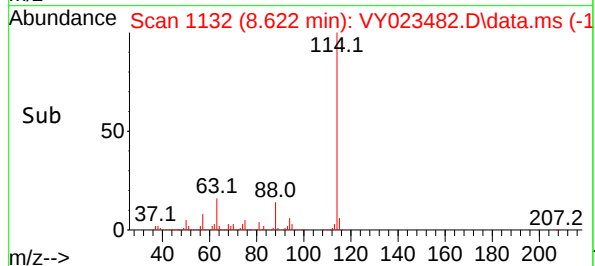
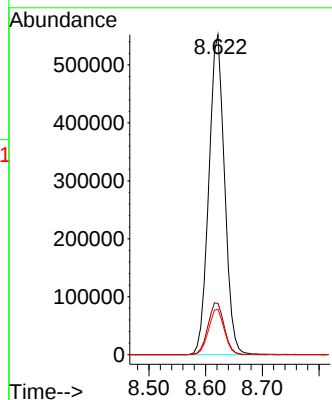
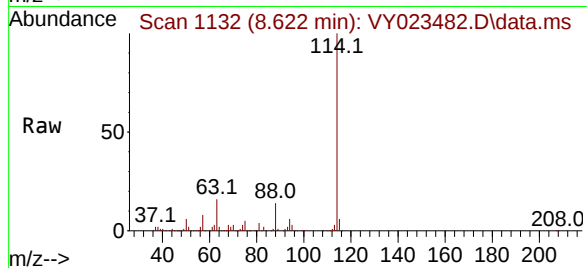
Tgt Ion:114 Resp: 1064919

Ion Ratio Lower Upper

114 100

63 16.1 0.0 34.2

88 14.2 0.0 28.4



#35

Dibromofluoromethane

Concen: 54.963 ug/l

RT: 7.640 min Scan# 971

Delta R.T. 0.006 min

Lab File: VY023482.D

Acq: 16 Oct 2025 09:46

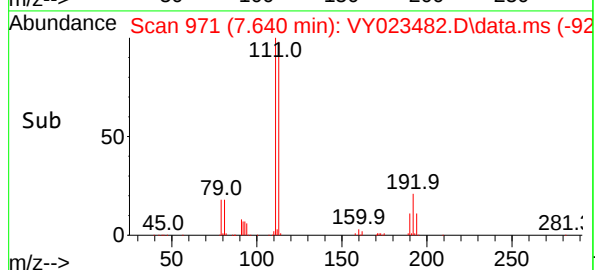
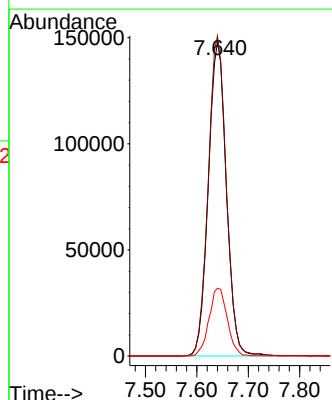
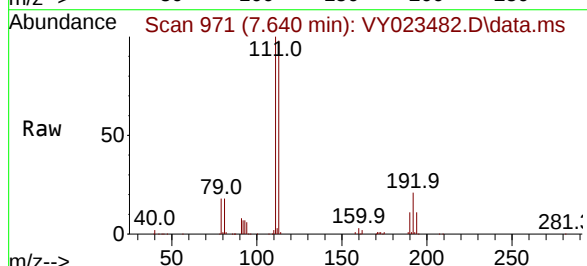
Tgt Ion:113 Resp: 359646

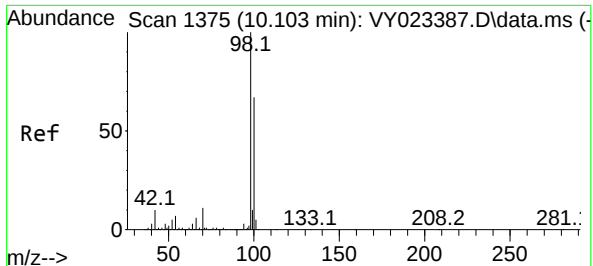
Ion Ratio Lower Upper

113 100

111 102.2 81.8 122.6

192 21.9 18.0 27.0

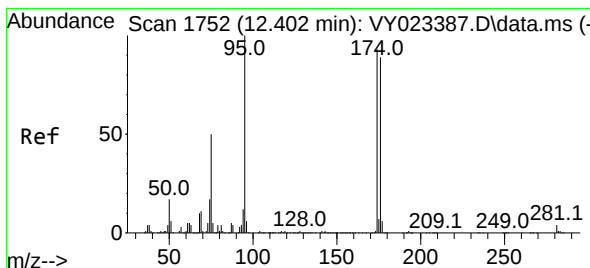
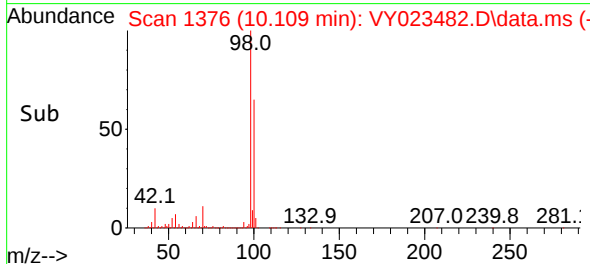
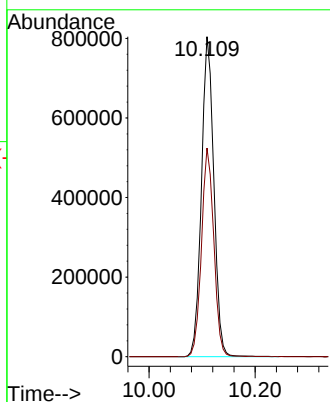
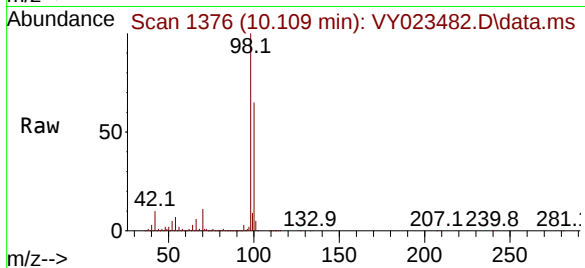




#50
Toluene-d8
Concen: 53.391 ug/l
RT: 10.109 min Scan# 11
Delta R.T. 0.006 min
Lab File: VY023482.D
Acq: 16 Oct 2025 09:46

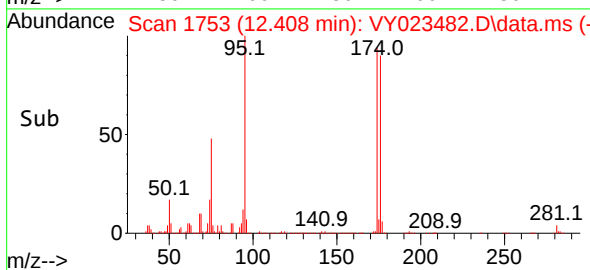
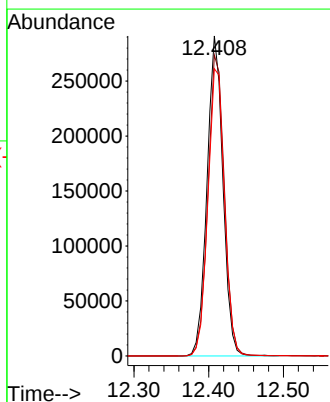
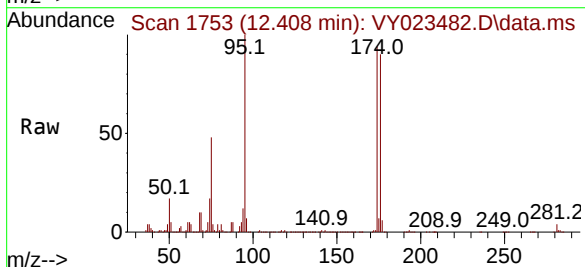
Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBL01

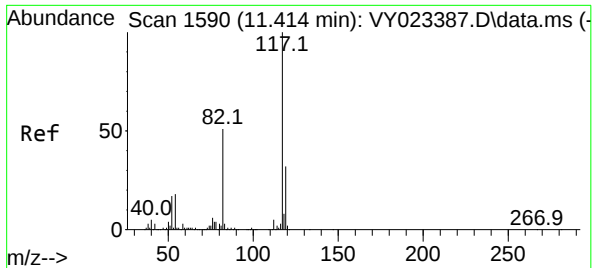
Tgt Ion: 98 Resp: 1301045
Ion Ratio Lower Upper
98 100
100 64.8 53.0 79.4



#62
4-Bromofluorobenzene
Concen: 53.491 ug/l
RT: 12.408 min Scan# 1753
Delta R.T. 0.006 min
Lab File: VY023482.D
Acq: 16 Oct 2025 09:46

Tgt Ion: 95 Resp: 430344
Ion Ratio Lower Upper
95 100
174 97.5 0.0 192.8
176 93.9 0.0 187.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY023482.D

Acq: 16 Oct 2025 09:46

Instrument :

MSVOA_Y

ClientSampleId :

VY1016SBL01

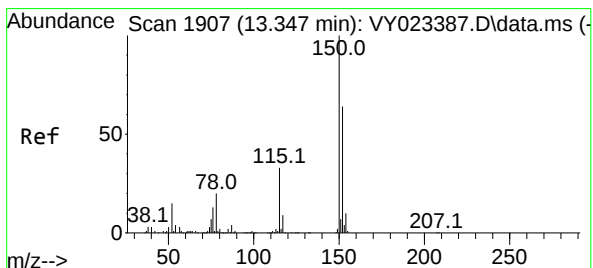
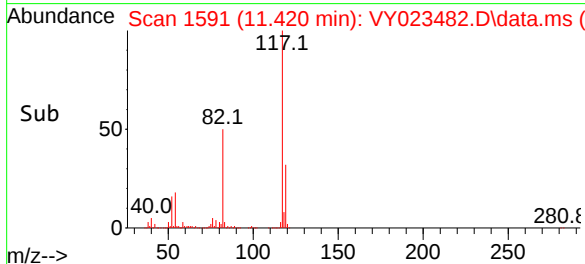
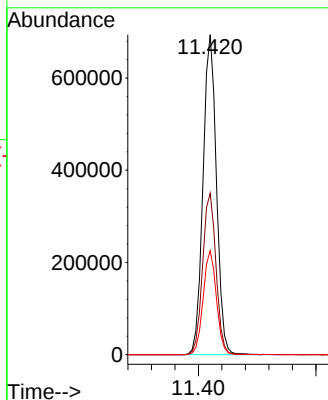
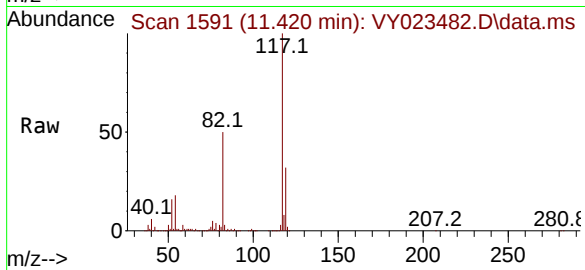
Tgt Ion:117 Resp: 1102445

Ion Ratio Lower Upper

117 100

82 50.4 41.0 61.4

119 32.5 25.6 38.4



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.346 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VY023482.D

Acq: 16 Oct 2025 09:46

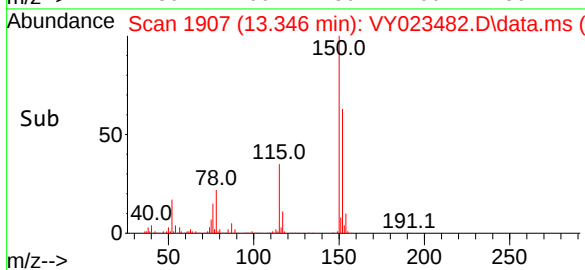
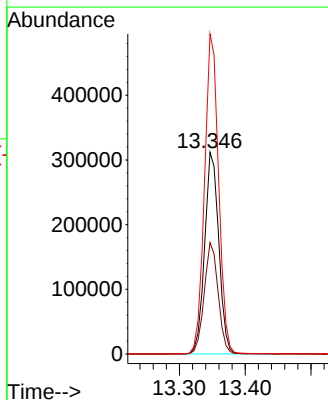
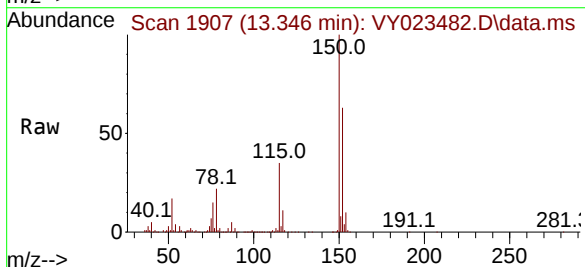
Tgt Ion:152 Resp: 465964

Ion Ratio Lower Upper

152 100

115 54.5 27.1 81.2

150 157.6 0.0 347.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023482.D
Acq On : 16 Oct 2025 09:46
Operator : SY/MD
Sample : VY1016SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBL01

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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_Y\methods\82Y100725S.M

Title : SW846 8260

Signal : TIC: VY023482.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.489	119	126	132	rBV	12487	40936	1.24%	0.227%
2	4.622	467	476	489	rVB4	9898	34277	1.03%	0.190%
3	6.890	837	848	864	rBV	34679	116701	3.52%	0.647%
4	7.640	961	971	977	rBV	493912	1196576	36.12%	6.634%
5	7.713	977	983	998	rVB	655738	1463978	44.19%	8.117%
6	8.067	1027	1041	1052	rBV2	379673	944193	28.50%	5.235%
7	8.622	1122	1132	1145	rBV	1172379	2309535	69.71%	12.805%
8	10.109	1367	1376	1392	rBV	2033053	3313063	100.00%	18.369%
9	10.512	1435	1442	1451	rBV	150553	279879	8.45%	1.552%
10	10.877	1496	1502	1513	rBV	77626	137770	4.16%	0.764%
11	11.249	1557	1563	1570	rVB	20145	33558	1.01%	0.186%
12	11.420	1583	1591	1603	rBV	1970628	3160688	95.40%	17.524%
13	12.408	1745	1753	1767	rBV	1522008	2374336	71.67%	13.164%
14	13.346	1901	1907	1917	rVB	1758745	2631072	79.42%	14.587%

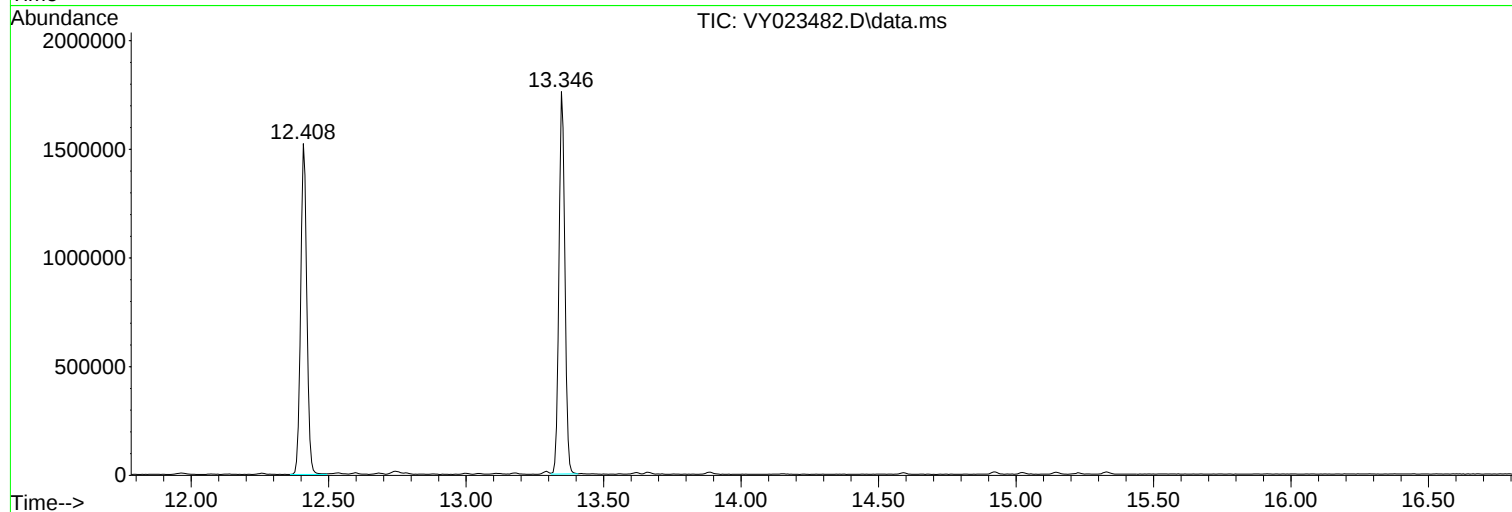
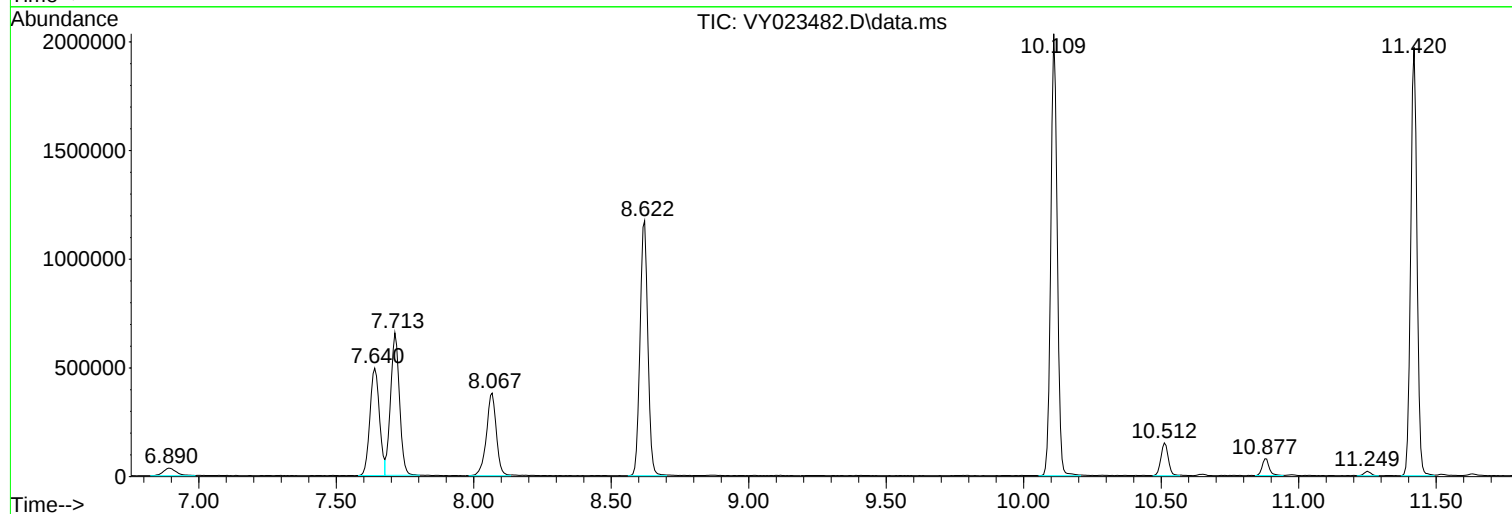
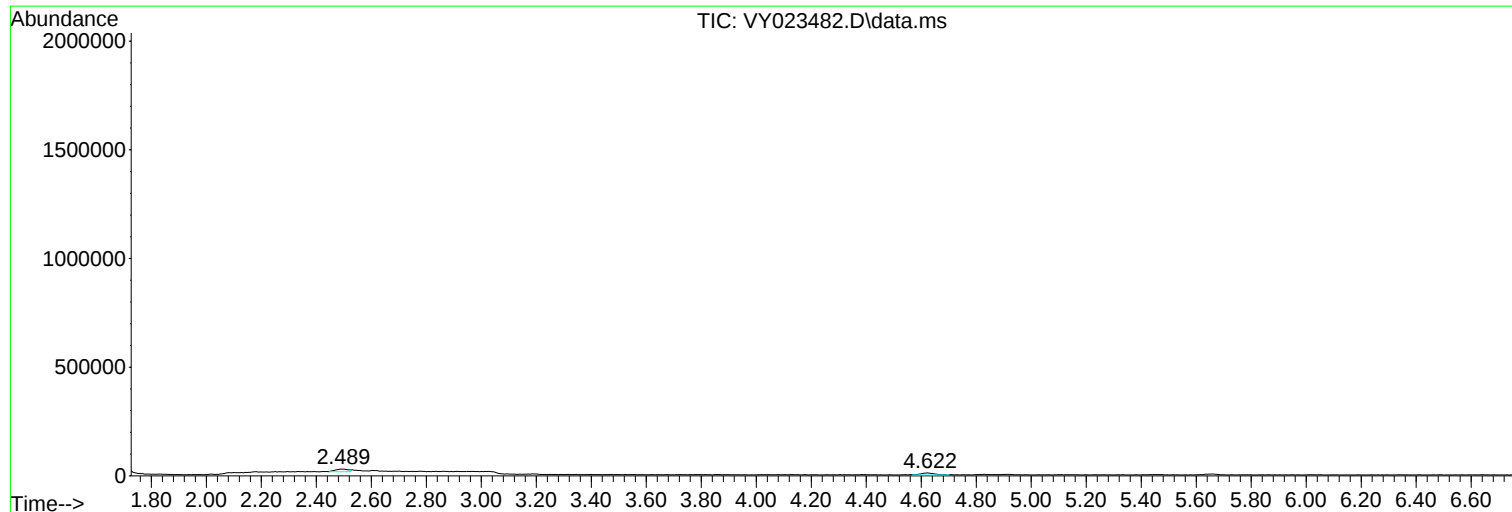
Sum of corrected areas: 18036562

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023482.D
Acq On : 16 Oct 2025 09:46
Operator : SY/MD
Sample : VY1016SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023482.D
Acq On : 16 Oct 2025 09:46
Operator : SY/MD
Sample : VY1016SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023482.D
Acq On : 16 Oct 2025 09:46
Operator : SY/MD
Sample : VY1016SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260

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

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

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: VW1020SBS01
 Lab Sample ID: VW1020SBS01
 Analytical Method: 8260D
 Sample Wt/Vol: 5 g

Level : LOW
 Final Vol: 5000 uL

Date Collected:
 Date Received:
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 100
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	19.9		1	1.10	5.00	ug/Kg	10/20/25 11:41	VW102025
74-87-3	Chloromethane	20.1		1	1.10	5.00	ug/Kg	10/20/25 11:41	VW102025
75-01-4	Vinyl Chloride	22.1		1	0.79	5.00	ug/Kg	10/20/25 11:41	VW102025
74-83-9	Bromomethane	21.1		1	1.10	5.00	ug/Kg	10/20/25 11:41	VW102025
75-00-3	Chloroethane	21.4		1	1.30	5.00	ug/Kg	10/20/25 11:41	VW102025
75-69-4	Trichlorofluoromethane	19.4		1	1.20	5.00	ug/Kg	10/20/25 11:41	VW102025
76-13-1	1,1,2-Trichlorotrifluoroethane	20.9		1	1.10	5.00	ug/Kg	10/20/25 11:41	VW102025
75-35-4	1,1-Dichloroethene	21.7		1	1.00	5.00	ug/Kg	10/20/25 11:41	VW102025
67-64-1	Acetone	97.1		1	4.70	25.0	ug/Kg	10/20/25 11:41	VW102025
75-15-0	Carbon Disulfide	21.1		1	1.10	5.00	ug/Kg	10/20/25 11:41	VW102025
1634-04-4	Methyl tert-butyl Ether	19.0		1	0.73	5.00	ug/Kg	10/20/25 11:41	VW102025
79-20-9	Methyl Acetate	17.5		1	1.50	5.00	ug/Kg	10/20/25 11:41	VW102025
75-09-2	Methylene Chloride	19.0		1	3.50	10.0	ug/Kg	10/20/25 11:41	VW102025
156-60-5	trans-1,2-Dichloroethene	21.0		1	0.86	5.00	ug/Kg	10/20/25 11:41	VW102025
75-34-3	1,1-Dichloroethane	20.8		1	0.80	5.00	ug/Kg	10/20/25 11:41	VW102025
110-82-7	Cyclohexane	19.2		1	0.79	5.00	ug/Kg	10/20/25 11:41	VW102025
78-93-3	2-Butanone	87.6		1	6.50	25.0	ug/Kg	10/20/25 11:41	VW102025
56-23-5	Carbon Tetrachloride	22.0		1	0.97	5.00	ug/Kg	10/20/25 11:41	VW102025
156-59-2	cis-1,2-Dichloroethene	20.3		1	0.75	5.00	ug/Kg	10/20/25 11:41	VW102025
74-97-5	Bromochloromethane	20.8		1	1.20	5.00	ug/Kg	10/20/25 11:41	VW102025
67-66-3	Chloroform	21.5		1	0.84	5.00	ug/Kg	10/20/25 11:41	VW102025
71-55-6	1,1,1-Trichloroethane	21.5		1	0.93	5.00	ug/Kg	10/20/25 11:41	VW102025
108-87-2	Methylcyclohexane	19.3		1	0.91	5.00	ug/Kg	10/20/25 11:41	VW102025
71-43-2	Benzene	20.9		1	0.79	5.00	ug/Kg	10/20/25 11:41	VW102025
107-06-2	1,2-Dichloroethane	20.6		1	0.79	5.00	ug/Kg	10/20/25 11:41	VW102025
79-01-6	Trichloroethene	20.3		1	0.81	5.00	ug/Kg	10/20/25 11:41	VW102025
78-87-5	1,2-Dichloropropane	21.0		1	0.91	5.00	ug/Kg	10/20/25 11:41	VW102025
75-27-4	Bromodichloromethane	22.0		1	0.78	5.00	ug/Kg	10/20/25 11:41	VW102025
108-10-1	4-Methyl-2-Pentanone	92.3		1	3.60	25.0	ug/Kg	10/20/25 11:41	VW102025
108-88-3	Toluene	20.8		1	0.78	5.00	ug/Kg	10/20/25 11:41	VW102025
10061-02-6	t-1,3-Dichloropropene	20.2		1	0.65	5.00	ug/Kg	10/20/25 11:41	VW102025
10061-01-5	cis-1,3-Dichloropropene	20.7		1	0.62	5.00	ug/Kg	10/20/25 11:41	VW102025
79-00-5	1,1,2-Trichloroethane	20.7		1	0.92	5.00	ug/Kg	10/20/25 11:41	VW102025
591-78-6	2-Hexanone	92.8		1	3.70	25.0	ug/Kg	10/20/25 11:41	VW102025
124-48-1	Dibromochloromethane	21.7		1	0.87	5.00	ug/Kg	10/20/25 11:41	VW102025
106-93-4	1,2-Dibromoethane	20.3		1	0.88	5.00	ug/Kg	10/20/25 11:41	VW102025
127-18-4	Tetrachloroethene	20.1		1	1.10	5.00	ug/Kg	10/20/25 11:41	VW102025
108-90-7	Chlorobenzene	20.2		1	0.91	5.00	ug/Kg	10/20/25 11:41	VW102025
100-41-4	Ethyl Benzene	20.5		1	0.67	5.00	ug/Kg	10/20/25 11:41	VW102025
179601-23-1	m/p-Xylenes	41.2		1	1.20	10.0	ug/Kg	10/20/25 11:41	VW102025
95-47-6	o-Xylene	19.8		1	0.82	5.00	ug/Kg	10/20/25 11:41	VW102025
100-42-5	Styrene	21.1		1	0.71	5.00	ug/Kg	10/20/25 11:41	VW102025
75-25-2	Bromoform	21.5		1	0.86	5.00	ug/Kg	10/20/25 11:41	VW102025

Report of Analysis

Client:	AECOM	Date Collected:	
Project:	AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206	Date Received:	
Client Sample ID:	VW1020SBS01	SDG No.:	Q3363
Lab Sample ID:	VW1020SBS01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5 g	Test:	VOC-TCLVOA-10
	Level : LOW		
	Final Vol: 5000 uL		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	19.8		1	0.78	5.00	ug/Kg	10/20/25 11:41	VW102025
79-34-5	1,1,2,2-Tetrachloroethane	18.9		1	1.20	5.00	ug/Kg	10/20/25 11:41	VW102025
541-73-1	1,3-Dichlorobenzene	20.4		1	1.70	5.00	ug/Kg	10/20/25 11:41	VW102025
106-46-7	1,4-Dichlorobenzene	20.3		1	1.60	5.00	ug/Kg	10/20/25 11:41	VW102025
95-50-1	1,2-Dichlorobenzene	20.0		1	1.50	5.00	ug/Kg	10/20/25 11:41	VW102025
96-12-8	1,2-Dibromo-3-Chloropropane	18.4		1	1.80	5.00	ug/Kg	10/20/25 11:41	VW102025
120-82-1	1,2,4-Trichlorobenzene	19.2		1	3.00	5.00	ug/Kg	10/20/25 11:41	VW102025
87-61-6	1,2,3-Trichlorobenzene	19.0		1	3.20	5.00	ug/Kg	10/20/25 11:41	VW102025
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	52.1			63 - 155	104%	SPK: 50		
1868-53-7	Dibromofluoromethane	53.3			70 - 134	107%	SPK: 50		
2037-26-5	Toluene-d8	53.0			74 - 123	106%	SPK: 50		
460-00-4	4-Bromofluorobenzene	51.7			17 - 146	103%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	281000							
540-36-3	1,4-Difluorobenzene	517000							
3114-55-4	Chlorobenzene-d5	481000							
3855-82-1	1,4-Dichlorobenzene-d4	241000							

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
 Data File : VW032380.D
 Acq On : 20 Oct 2025 11:41
 Operator : SY/MD
 Sample : VW1020SBS01
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VW1020SBS01

Manual Integrations APPROVED

Reviewed By :Amit Patel 10/21/2025
 Supervised By :Semsettin Yesilyurt 10/21/2025

Quant Time: Oct 21 01:23:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:24:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.959	168	280998	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.849	114	517149	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	480746	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	240746	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.319	65	213734	52.149	ug/l	0.00
Spiked Amount 50.000	Range 63 - 155		Recovery = 104.300%			
35) Dibromofluoromethane	7.898	113	178453	53.284	ug/l	0.00
Spiked Amount 50.000	Range 70 - 134		Recovery = 106.560%			
50) Toluene-d8	10.325	98	655431	53.025	ug/l	0.00
Spiked Amount 50.000	Range 74 - 123		Recovery = 106.040%			
62) 4-Bromofluorobenzene	12.617	95	241390	51.667	ug/l	0.00
Spiked Amount 50.000	Range 17 - 146		Recovery = 103.340%			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.046	85	35044	19.874	ug/l	99
3) Chloromethane	2.253	50	54581	20.061	ug/l	99
4) Vinyl Chloride	2.405	62	71685	22.069	ug/l	99
5) Bromomethane	2.820	94	50437	21.129	ug/l	99
6) Chloroethane	2.966	64	45866	21.387	ug/l	95
7) Trichlorofluoromethane	3.302	101	47291	19.445	ug/l	96
8) Diethyl Ether	3.716	74	42688	20.256	ug/l	90
9) 1,1,2-Trichlorotrifluo...	4.106	101	60961	20.898	ug/l	95
10) Methyl Iodide	4.301	142	90782	21.811	ug/l	98
11) Tert butyl alcohol	5.216	59	25591	82.490	ug/l	98
12) 1,1-Dichloroethene	4.076	96	68828	21.733	ug/l	90
13) Acrolein	3.929	56	32482	64.514	ug/l	100
14) Allyl chloride	4.698	41	108462	20.277	ug/l	91
15) Acrylonitrile	5.405	53	100696	91.844	ug/l	99
16) Acetone	4.161	43	110171	97.079	ug/l	99
17) Carbon Disulfide	4.417	76	182726	21.147	ug/l	97
18) Methyl Acetate	4.710	43	57010	17.537	ug/l	99
19) Methyl tert-butyl Ether	5.460	73	118617	19.017	ug/l	97
20) Methylene Chloride	4.948	84	83888	19.017	ug/l	98
21) trans-1,2-Dichloroethene	5.454	96	73585	20.987	ug/l	97
22) Diisopropyl ether	6.338	45	227221	20.425	ug/l	94
23) Vinyl Acetate	6.283	43	713649	96.045	ug/l	100
24) 1,1-Dichloroethane	6.240	63	140635	20.809	ug/l	97
25) 2-Butanone	7.191	43	135380	87.590	ug/l	100
26) 2,2-Dichloropropane	7.185	77	76369	22.091	ug/l	99
27) cis-1,2-Dichloroethene	7.191	96	85339	20.260	ug/l	93
28) Bromochloromethane	7.526	49	66032	20.766	ug/l	88
29) Tetrahydrofuran	7.551	42	84977	87.426	ug/l	94
30) Chloroform	7.691	83	147499	21.519	ug/l	98
31) Cyclohexane	7.965	56	110671	19.181	ug/l	98
32) 1,1,1-Trichloroethane	7.886	97	104287	21.471	ug/l	100
36) 1,1-Dichloropropene	8.093	75	97235	20.572	ug/l	98
37) Ethyl Acetate	7.270	43	57160	18.169	ug/l	99
38) Carbon Tetrachloride	8.081	117	97878	22.006	ug/l	98
39) Methylcyclohexane	9.343	83	110291	19.345	ug/l	98
40) Benzene	8.337	78	309652	20.901	ug/l	94

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
 Data File : VW032380.D
 Acq On : 20 Oct 2025 11:41
 Operator : SY/MD
 Sample : VW1020SBS01
 Misc : 5.00g/5mL/MSVOA_W/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 VW1020SBS01

Quant Time: Oct 21 01:23:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
 Quant Title : SW846 8260
 QLast Update : Thu Oct 02 21:24:16 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Amit Patel 10/21/2025
 Supervised By :Semsettin Yesilyurt 10/21/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.496	41	32519	19.180	ug/l	91
42) 1,2-Dichloroethane	8.410	62	99820	20.591	ug/l	100
43) Isopropyl Acetate	8.435	43	101969	18.271	ug/l	97
44) Trichloroethene	9.099	130	70587	20.348	ug/l	91
45) 1,2-Dichloropropane	9.374	63	77735	21.021	ug/l	97
46) Dibromomethane	9.465	93	47706	20.980	ug/l	93
47) Bromodichloromethane	9.648	83	114292	21.975	ug/l	94
48) Methyl methacrylate	9.441	41	47476	17.496	ug/l	93
49) 1,4-Dioxane	9.459	88	11448	368.334	ug/l #	85
51) 4-Methyl-2-Pentanone	10.215	43	298346	92.294	ug/l	98
52) Toluene	10.392	92	191814	20.790	ug/l	98
53) t-1,3-Dichloropropene	10.605	75	102094	20.233	ug/l	98
54) cis-1,3-Dichloropropene	10.075	75	120341	20.705	ug/l	98
55) 1,1,2-Trichloroethane	10.788	97	62846	20.679	ug/l	97
56) Ethyl methacrylate	10.648	69	78320	18.412	ug/l	95
57) 1,3-Dichloropropane	10.934	76	109231	20.350	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.928	63	202349	89.381	ug/l	95
59) 2-Hexanone	10.971	43	211671	92.843	ug/l	97
60) Dibromochloromethane	11.129	129	74905	21.706	ug/l	99
61) 1,2-Dibromoethane	11.239	107	60047	20.263	ug/l	97
64) Tetrachloroethene	10.861	164	57861	20.114	ug/l	88
65) Chlorobenzene	11.660	112	213685	20.202	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.727	131	72938	22.139	ug/l	97
67) Ethyl Benzene	11.727	91	361301	20.492	ug/l	94
68) m/p-Xylenes	11.837	106	279914	41.170	ug/l	100
69) o-Xylene	12.166	106	125704	19.771	ug/l	97
70) Styrene	12.178	104	233906	21.071	ug/l	97
71) Bromoform	12.349	173	40631	21.516	ug/l #	98
73) Isopropylbenzene	12.458	105	326100	19.799	ug/l	100
74) N-amyl acetate	12.269	43	92502	17.605	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.714	83	77328	18.908	ug/l	100
76) 1,2,3-Trichloropropane	12.763	75	67320m	21.249	ug/l	
77) Bromobenzene	12.745	156	80266	20.216	ug/l	93
78) n-propylbenzene	12.800	91	415401	20.190	ug/l	97
79) 2-Chlorotoluene	12.891	91	252737	20.091	ug/l	99
80) 1,3,5-Trimethylbenzene	12.940	105	280554	19.699	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.507	75	24052	19.233	ug/l	92
82) 4-Chlorotoluene	12.989	91	270686	20.239	ug/l	99
83) tert-Butylbenzene	13.202	119	226702	19.400	ug/l	97
84) 1,2,4-Trimethylbenzene	13.245	105	290311	20.046	ug/l	100
85) sec-Butylbenzene	13.379	105	350178	19.609	ug/l	100
86) p-Isopropyltoluene	13.495	119	293214	19.788	ug/l	100
87) 1,3-Dichlorobenzene	13.495	146	163992	20.398	ug/l	96
88) 1,4-Dichlorobenzene	13.574	146	162933	20.268	ug/l	98
89) n-Butylbenzene	13.818	91	285250	19.717	ug/l	97
90) Hexachloroethane	14.086	117	58655	22.085	ug/l	94
91) 1,2-Dichlorobenzene	13.867	146	145087	19.964	ug/l	97
92) 1,2-Dibromo-3-Chloropr...	14.476	75	13154	18.371	ug/l	87
93) 1,2,4-Trichlorobenzene	15.129	180	83664	19.198	ug/l	96
94) Hexachlorobutadiene	15.226	225	40248	20.200	ug/l	89
95) Naphthalene	15.360	128	178782	17.083	ug/l	99
96) 1,2,3-Trichlorobenzene	15.549	180	78242	19.048	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW102025\
Data File : VW032380.D
Acq On : 20 Oct 2025 11:41
Operator : SY/MD
Sample : VW1020SBS01
Misc : 5.00g/5mL/MSVOA_W/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 21 01:23:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W100125S.M
Quant Title : SW846 8260
QLast Update : Thu Oct 02 21:24:16 2025
Response via : Initial Calibration

Instrument :
MSVOA_W
ClientSampleId :
VW1020SBS01

Manual Integrations
APPROVED

Reviewed By :Amit Patel 10/21/2025
Supervised By :Semsettin Yesilyurt 10/21/2025

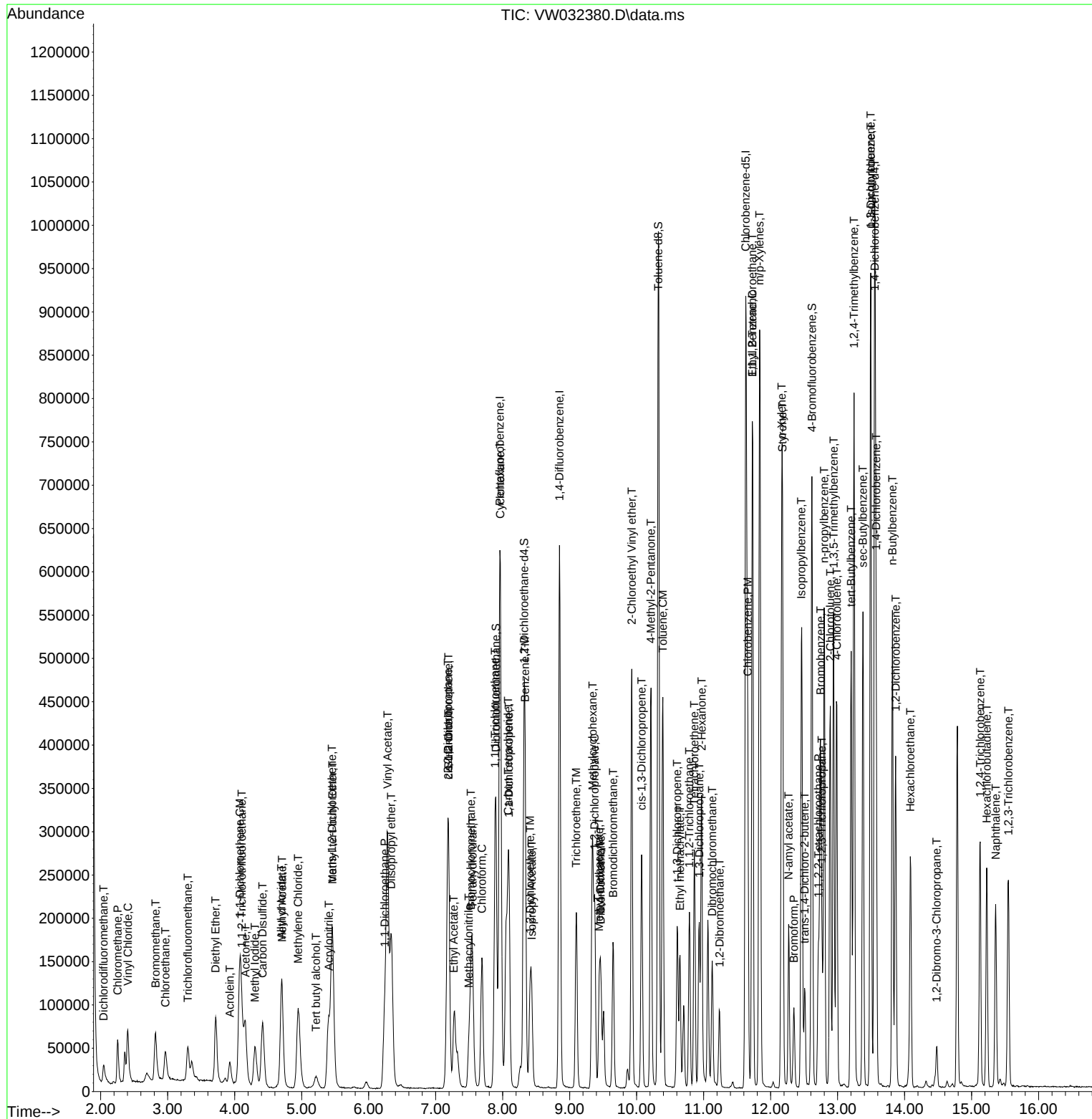
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

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

Instrument :
MSVOA_W
ClientSampleId :
VW1020SBS01

Manual Integrations

Reviewed By :Amit Patel 10/21/2025
Supervised By :Semsettin Yesilyurt 10/21/2025



Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: VY1016SBS01
 Lab Sample ID: VY1016SBS01
 Analytical Method: 8260D
 Sample Wt/Vol: 5 g

Level : LOW
 Final Vol: 5000 uL

Date Collected:
 Date Received:
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 100
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	21.5		1	1.10	5.00	ug/Kg	10/16/25 10:17	VY101625
74-87-3	Chloromethane	19.9		1	1.10	5.00	ug/Kg	10/16/25 10:17	VY101625
75-01-4	Vinyl Chloride	20.1		1	0.79	5.00	ug/Kg	10/16/25 10:17	VY101625
74-83-9	Bromomethane	22.5		1	1.10	5.00	ug/Kg	10/16/25 10:17	VY101625
75-00-3	Chloroethane	21.3		1	1.30	5.00	ug/Kg	10/16/25 10:17	VY101625
75-69-4	Trichlorofluoromethane	21.1		1	1.20	5.00	ug/Kg	10/16/25 10:17	VY101625
76-13-1	1,1,2-Trichlorotrifluoroethane	22.2		1	1.10	5.00	ug/Kg	10/16/25 10:17	VY101625
75-35-4	1,1-Dichloroethene	20.6		1	1.00	5.00	ug/Kg	10/16/25 10:17	VY101625
67-64-1	Acetone	150		1	4.70	25.0	ug/Kg	10/16/25 10:17	VY101625
75-15-0	Carbon Disulfide	20.7		1	1.10	5.00	ug/Kg	10/16/25 10:17	VY101625
1634-04-4	Methyl tert-butyl Ether	20.2		1	0.73	5.00	ug/Kg	10/16/25 10:17	VY101625
79-20-9	Methyl Acetate	18.9		1	1.50	5.00	ug/Kg	10/16/25 10:17	VY101625
75-09-2	Methylene Chloride	20.2		1	3.50	10.0	ug/Kg	10/16/25 10:17	VY101625
156-60-5	trans-1,2-Dichloroethene	21.1		1	0.86	5.00	ug/Kg	10/16/25 10:17	VY101625
75-34-3	1,1-Dichloroethane	21.2		1	0.80	5.00	ug/Kg	10/16/25 10:17	VY101625
110-82-7	Cyclohexane	19.6		1	0.79	5.00	ug/Kg	10/16/25 10:17	VY101625
78-93-3	2-Butanone	130		1	6.50	25.0	ug/Kg	10/16/25 10:17	VY101625
56-23-5	Carbon Tetrachloride	21.8		1	0.97	5.00	ug/Kg	10/16/25 10:17	VY101625
156-59-2	cis-1,2-Dichloroethene	20.8		1	0.75	5.00	ug/Kg	10/16/25 10:17	VY101625
74-97-5	Bromochloromethane	21.6		1	1.20	5.00	ug/Kg	10/16/25 10:17	VY101625
67-66-3	Chloroform	21.6		1	0.84	5.00	ug/Kg	10/16/25 10:17	VY101625
71-55-6	1,1,1-Trichloroethane	21.3		1	0.93	5.00	ug/Kg	10/16/25 10:17	VY101625
108-87-2	Methylcyclohexane	20.0		1	0.91	5.00	ug/Kg	10/16/25 10:17	VY101625
71-43-2	Benzene	21.5		1	0.79	5.00	ug/Kg	10/16/25 10:17	VY101625
107-06-2	1,2-Dichloroethane	21.3		1	0.79	5.00	ug/Kg	10/16/25 10:17	VY101625
79-01-6	Trichloroethene	21.4		1	0.81	5.00	ug/Kg	10/16/25 10:17	VY101625
78-87-5	1,2-Dichloropropane	21.4		1	0.91	5.00	ug/Kg	10/16/25 10:17	VY101625
75-27-4	Bromodichloromethane	21.9		1	0.78	5.00	ug/Kg	10/16/25 10:17	VY101625
108-10-1	4-Methyl-2-Pentanone	110		1	3.60	25.0	ug/Kg	10/16/25 10:17	VY101625
108-88-3	Toluene	21.7		1	0.78	5.00	ug/Kg	10/16/25 10:17	VY101625
10061-02-6	t-1,3-Dichloropropene	20.9		1	0.65	5.00	ug/Kg	10/16/25 10:17	VY101625
10061-01-5	cis-1,3-Dichloropropene	21.3		1	0.62	5.00	ug/Kg	10/16/25 10:17	VY101625
79-00-5	1,1,2-Trichloroethane	22.1		1	0.92	5.00	ug/Kg	10/16/25 10:17	VY101625
591-78-6	2-Hexanone	120		1	3.70	25.0	ug/Kg	10/16/25 10:17	VY101625
124-48-1	Dibromochloromethane	22.0		1	0.87	5.00	ug/Kg	10/16/25 10:17	VY101625
106-93-4	1,2-Dibromoethane	21.5		1	0.88	5.00	ug/Kg	10/16/25 10:17	VY101625
127-18-4	Tetrachloroethene	22.2		1	1.10	5.00	ug/Kg	10/16/25 10:17	VY101625
108-90-7	Chlorobenzene	21.0		1	0.91	5.00	ug/Kg	10/16/25 10:17	VY101625
100-41-4	Ethyl Benzene	20.4		1	0.67	5.00	ug/Kg	10/16/25 10:17	VY101625
179601-23-1	m/p-Xylenes	42.1		1	1.20	10.0	ug/Kg	10/16/25 10:17	VY101625
95-47-6	o-Xylene	20.4		1	0.82	5.00	ug/Kg	10/16/25 10:17	VY101625
100-42-5	Styrene	21.0		1	0.71	5.00	ug/Kg	10/16/25 10:17	VY101625
75-25-2	Bromoform	21.7		1	0.86	5.00	ug/Kg	10/16/25 10:17	VY101625

Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: VY1016SBS01
 Lab Sample ID: VY1016SBS01
 Analytical Method: 8260D
 Sample Wt/Vol: 5 g

Level : LOW
 Final Vol: 5000 uL

Date Collected:
 Date Received:
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 100
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	19.6		1	0.78	5.00	ug/Kg	10/16/25 10:17	VY101625
79-34-5	1,1,2,2-Tetrachloroethane	20.4		1	1.20	5.00	ug/Kg	10/16/25 10:17	VY101625
541-73-1	1,3-Dichlorobenzene	20.2		1	1.70	5.00	ug/Kg	10/16/25 10:17	VY101625
106-46-7	1,4-Dichlorobenzene	20.2		1	1.60	5.00	ug/Kg	10/16/25 10:17	VY101625
95-50-1	1,2-Dichlorobenzene	20.3		1	1.50	5.00	ug/Kg	10/16/25 10:17	VY101625
96-12-8	1,2-Dibromo-3-Chloropropane	20.5		1	1.80	5.00	ug/Kg	10/16/25 10:17	VY101625
120-82-1	1,2,4-Trichlorobenzene	19.0		1	3.00	5.00	ug/Kg	10/16/25 10:17	VY101625
87-61-6	1,2,3-Trichlorobenzene	18.5		1	3.20	5.00	ug/Kg	10/16/25 10:17	VY101625
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	50.2			63 - 155	100%	SPK: 50		
1868-53-7	Dibromofluoromethane	52.3			70 - 134	105%	SPK: 50		
2037-26-5	Toluene-d8	52.1			74 - 123	104%	SPK: 50		
460-00-4	4-Bromofluorobenzene	51.1			17 - 146	102%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	513000							
540-36-3	1,4-Difluorobenzene	747000							
3114-55-4	Chlorobenzene-d5	666000							
3855-82-1	1,4-Dichlorobenzene-d4	360000							

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
 Data File : VY023483.D
 Acq On : 16 Oct 2025 10:17
 Operator : SY/MD
 Sample : VY1016SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1016SBS01

Quant Time: Oct 17 01:51:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 10/17/2025
 Supervised By : Mahesh Dadoda 10/17/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.713	168	512746	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	747160	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	665790	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	360043	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	215147	50.178	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 100.360%			
35) Dibromofluoromethane	7.640	113	240099	52.298	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 104.600%			
50) Toluene-d8	10.109	98	889998	52.055	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 104.120%			
62) 4-Bromofluorobenzene	12.408	95	288541	51.118	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 102.240%			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.867	85	79336	21.496	ug/l	98
3) Chloromethane	2.074	50	100070	19.904	ug/l	99
4) Vinyl Chloride	2.208	62	131537	20.086	ug/l	99
5) Bromomethane	2.592	94	123888	22.544	ug/l	99
6) Chloroethane	2.733	64	95145	21.315	ug/l	99
7) Trichlorofluoromethane	3.056	101	191727	21.086	ug/l	99
8) Diethyl Ether	3.464	74	48430	20.384	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.818	101	104669	22.184	ug/l	100
10) Methyl Iodide	4.007	142	99580	18.958	ug/l	99
11) Tert butyl alcohol	4.866	59	31480	98.691	ug/l #	89
12) 1,1-Dichloroethene	3.793	96	94218	20.599	ug/l	91
13) Acrolein	3.659	56	32156	71.343	ug/l	100
14) Allyl chloride	4.391	41	109764	19.691	ug/l	98
15) Acrylonitrile	5.061	53	92580	101.820	ug/l	100
16) Acetone	3.873	43	151705	148.620	ug/l	96
17) Carbon Disulfide	4.110	76	270770	20.684	ug/l	99
18) Methyl Acetate	4.385	43	50712	18.939	ug/l	98
19) Methyl tert-butyl Ether	5.122	73	222011	20.196	ug/l	99
20) Methylene Chloride	4.616	84	111628	20.224	ug/l	99
21) trans-1,2-Dichloroethene	5.116	96	106146	21.079	ug/l	97
22) Diisopropyl ether	6.025	45	257413	20.877	ug/l	95
23) Vinyl Acetate	5.964	43	685651	102.736	ug/l	99
24) 1,1-Dichloroethane	5.921	63	172973	21.178	ug/l	98
25) 2-Butanone	6.903	43	155937	125.132	ug/l	97
26) 2,2-Dichloropropane	6.890	77	163122	21.766	ug/l	99
27) cis-1,2-Dichloroethene	6.896	96	120807	20.769	ug/l	98
28) Bromochloromethane	7.250	49	65858	21.600	ug/l	100
29) Tetrahydrofuran	7.268	42	69855	98.851	ug/l	99
30) Chloroform	7.427	83	194145	21.635	ug/l	97
31) Cyclohexane	7.707	56	139906	19.615	ug/l	94
32) 1,1,1-Trichloroethane	7.622	97	173853	21.319	ug/l	99
36) 1,1-Dichloropropene	7.841	75	128905	21.209	ug/l	100
37) Ethyl Acetate	6.988	43	51421	21.355	ug/l	98
38) Carbon Tetrachloride	7.823	117	160890	21.831	ug/l	97
39) Methylcyclohexane	9.109	83	158344	20.009	ug/l	96
40) Benzene	8.085	78	413392	21.477	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
 Data File : VY023483.D
 Acq On : 16 Oct 2025 10:17
 Operator : SY/MD
 Sample : VY1016SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1016SBS01

Quant Time: Oct 17 01:51:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :John Carlone 10/17/2025
 Supervised By :Mahesh Dadoda 10/17/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.220	41	24944m	19.154	ug/l	
42) 1,2-Dichloroethane	8.158	62	105907	21.334	ug/l	99
43) Isopropyl Acetate	8.201	43	96642	20.128	ug/l #	86
44) Trichloroethene	8.866	130	120393	21.370	ug/l	93
45) 1,2-Dichloropropane	9.146	63	91191	21.449	ug/l	97
46) Dibromomethane	9.237	93	58994	21.944	ug/l	96
47) Bromodichloromethane	9.426	83	148068	21.869	ug/l	98
48) Methyl methacrylate	9.225	41	46189	20.477	ug/l	97
49) 1,4-Dioxane	9.237	88	12840	411.943	ug/l	99
51) 4-Methyl-2-Pentanone	10.000	43	261718	105.500	ug/l	99
52) Toluene	10.170	92	270724	21.662	ug/l	100
53) t-1,3-Dichloropropene	10.396	75	123163	20.920	ug/l	98
54) cis-1,3-Dichloropropene	9.859	75	147686	21.255	ug/l	99
55) 1,1,2-Trichloroethane	10.573	97	79976	22.123	ug/l	95
56) Ethyl methacrylate	10.438	69	83917	20.123	ug/l	100
57) 1,3-Dichloropropane	10.719	76	125109	21.839	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.713	63	183838	98.409	ug/l	100
59) 2-Hexanone	10.762	43	216617	122.187	ug/l	99
60) Dibromochloromethane	10.914	129	111370	21.973	ug/l	98
61) 1,2-Dibromoethane	11.018	107	74189	21.518	ug/l	99
64) Tetrachloroethene	10.646	164	152325	22.158	ug/l	98
65) Chlorobenzene	11.444	112	303914	20.988	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.518	131	110136	21.343	ug/l	99
67) Ethyl Benzene	11.524	91	479286	20.448	ug/l	98
68) m/p-Xylenes	11.633	106	395611	42.079	ug/l	100
69) o-Xylene	11.957	106	180064	20.419	ug/l	99
70) Styrene	11.969	104	303879	20.955	ug/l	100
71) Bromoform	12.133	173	69331	21.660	ug/l #	99
73) Isopropylbenzene	12.255	105	466166	19.647	ug/l	99
74) N-amyl acetate	12.072	43	79048	18.548	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.505	83	79307	20.436	ug/l	99
76) 1,2,3-Trichloropropane	12.560	75	62608m	19.709	ug/l	
77) Bromobenzene	12.536	156	125680	19.924	ug/l	99
78) n-propylbenzene	12.597	91	555598	20.235	ug/l	100
79) 2-Chlorotoluene	12.682	91	321611	20.002	ug/l	99
80) 1,3,5-Trimethylbenzene	12.737	105	385277	20.094	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.304	75	25642	19.795	ug/l	98
82) 4-Chlorotoluene	12.780	91	339540	20.504	ug/l	99
83) tert-Butylbenzene	12.999	119	343516	19.404	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	390148	20.389	ug/l	99
85) sec-Butylbenzene	13.176	105	511595	20.146	ug/l	99
86) p-Isopropyltoluene	13.292	119	431551	19.959	ug/l	100
87) 1,3-Dichlorobenzene	13.286	146	248160	20.203	ug/l	99
88) 1,4-Dichlorobenzene	13.365	146	244835	20.181	ug/l	99
89) n-Butylbenzene	13.621	91	368537	19.562	ug/l	99
90) Hexachloroethane	13.877	117	96326	20.713	ug/l	96
91) 1,2-Dichlorobenzene	13.657	146	218744	20.312	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	13067	20.521	ug/l	96
93) 1,2,4-Trichlorobenzene	14.919	180	127319	18.964	ug/l	99
94) Hexachlorobutadiene	15.023	225	82853	19.797	ug/l	99
95) Naphthalene	15.145	128	184817	17.287	ug/l	100
96) 1,2,3-Trichlorobenzene	15.328	180	107432	18.474	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023483.D
Acq On : 16 Oct 2025 10:17
Operator : SY/MD
Sample : VY1016SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 10/17/2025
Supervised By :Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:51:45 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

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

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

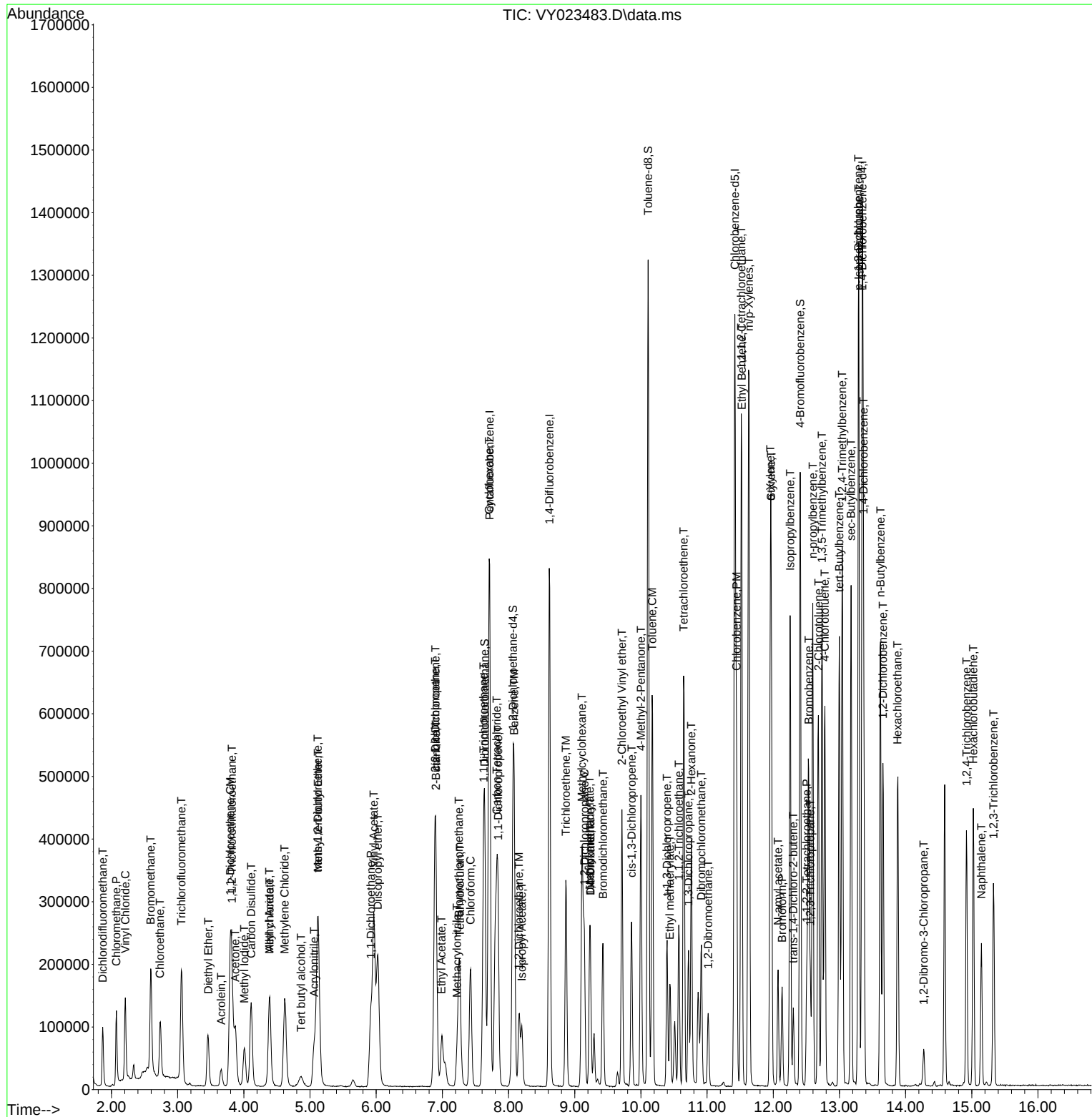
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023483.D
Acq On : 16 Oct 2025 10:17
Operator : SY/MD
Sample : VY1016SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBS01

Manual Integrations

Reviewed By :John Carlone 10/17/2025
Supervised By :Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:51:45 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration



Report of Analysis

Client: AECOM
 Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206
 Client Sample ID: VY1016SBS01
 Lab Sample ID: VY1016SBS01
 Analytical Method: 8260D
 Sample Wt/Vol: 5 g

Level : LOW
 Final Vol: 5000 uL

Date Collected:
 Date Received:
 SDG No.: Q3363
 Matrix: SOIL
 % Solid: 100
 Test: VOC-TCLVOA-10

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-71-8	Dichlorodifluoromethane	21.5		1	1.10	5.00	ug/Kg	10/16/25 10:40	VY101625
74-87-3	Chloromethane	20.3		1	1.10	5.00	ug/Kg	10/16/25 10:40	VY101625
75-01-4	Vinyl Chloride	21.2		1	0.79	5.00	ug/Kg	10/16/25 10:40	VY101625
74-83-9	Bromomethane	21.6		1	1.10	5.00	ug/Kg	10/16/25 10:40	VY101625
75-00-3	Chloroethane	21.5		1	1.30	5.00	ug/Kg	10/16/25 10:40	VY101625
75-69-4	Trichlorofluoromethane	20.4		1	1.20	5.00	ug/Kg	10/16/25 10:40	VY101625
76-13-1	1,1,2-Trichlorotrifluoroethane	21.5		1	1.10	5.00	ug/Kg	10/16/25 10:40	VY101625
75-35-4	1,1-Dichloroethene	20.8		1	1.00	5.00	ug/Kg	10/16/25 10:40	VY101625
67-64-1	Acetone	110		1	4.70	25.0	ug/Kg	10/16/25 10:40	VY101625
75-15-0	Carbon Disulfide	20.9		1	1.10	5.00	ug/Kg	10/16/25 10:40	VY101625
1634-04-4	Methyl tert-butyl Ether	17.4		1	0.73	5.00	ug/Kg	10/16/25 10:40	VY101625
79-20-9	Methyl Acetate	15.3		1	1.50	5.00	ug/Kg	10/16/25 10:40	VY101625
75-09-2	Methylene Chloride	19.1		1	3.50	10.0	ug/Kg	10/16/25 10:40	VY101625
156-60-5	trans-1,2-Dichloroethene	21.1		1	0.86	5.00	ug/Kg	10/16/25 10:40	VY101625
75-34-3	1,1-Dichloroethane	20.9		1	0.80	5.00	ug/Kg	10/16/25 10:40	VY101625
110-82-7	Cyclohexane	19.6		1	0.79	5.00	ug/Kg	10/16/25 10:40	VY101625
78-93-3	2-Butanone	94.8		1	6.50	25.0	ug/Kg	10/16/25 10:40	VY101625
56-23-5	Carbon Tetrachloride	21.9		1	0.97	5.00	ug/Kg	10/16/25 10:40	VY101625
156-59-2	cis-1,2-Dichloroethene	20.6		1	0.75	5.00	ug/Kg	10/16/25 10:40	VY101625
74-97-5	Bromochloromethane	19.9		1	1.20	5.00	ug/Kg	10/16/25 10:40	VY101625
67-66-3	Chloroform	21.0		1	0.84	5.00	ug/Kg	10/16/25 10:40	VY101625
71-55-6	1,1,1-Trichloroethane	21.5		1	0.93	5.00	ug/Kg	10/16/25 10:40	VY101625
108-87-2	Methylcyclohexane	19.8		1	0.91	5.00	ug/Kg	10/16/25 10:40	VY101625
71-43-2	Benzene	21.5		1	0.79	5.00	ug/Kg	10/16/25 10:40	VY101625
107-06-2	1,2-Dichloroethane	19.9		1	0.79	5.00	ug/Kg	10/16/25 10:40	VY101625
79-01-6	Trichloroethene	21.2		1	0.81	5.00	ug/Kg	10/16/25 10:40	VY101625
78-87-5	1,2-Dichloropropane	21.0		1	0.91	5.00	ug/Kg	10/16/25 10:40	VY101625
75-27-4	Bromodichloromethane	21.2		1	0.78	5.00	ug/Kg	10/16/25 10:40	VY101625
108-10-1	4-Methyl-2-Pentanone	81.3		1	3.60	25.0	ug/Kg	10/16/25 10:40	VY101625
108-88-3	Toluene	21.3		1	0.78	5.00	ug/Kg	10/16/25 10:40	VY101625
10061-02-6	t-1,3-Dichloropropene	19.3		1	0.65	5.00	ug/Kg	10/16/25 10:40	VY101625
10061-01-5	cis-1,3-Dichloropropene	20.3		1	0.62	5.00	ug/Kg	10/16/25 10:40	VY101625
79-00-5	1,1,2-Trichloroethane	19.8		1	0.92	5.00	ug/Kg	10/16/25 10:40	VY101625
591-78-6	2-Hexanone	90.6		1	3.70	25.0	ug/Kg	10/16/25 10:40	VY101625
124-48-1	Dibromochloromethane	20.2		1	0.87	5.00	ug/Kg	10/16/25 10:40	VY101625
106-93-4	1,2-Dibromoethane	19.0		1	0.88	5.00	ug/Kg	10/16/25 10:40	VY101625
127-18-4	Tetrachloroethene	21.4		1	1.10	5.00	ug/Kg	10/16/25 10:40	VY101625
108-90-7	Chlorobenzene	21.1		1	0.91	5.00	ug/Kg	10/16/25 10:40	VY101625
100-41-4	Ethyl Benzene	20.8		1	0.67	5.00	ug/Kg	10/16/25 10:40	VY101625
179601-23-1	m/p-Xylenes	43.1		1	1.20	10.0	ug/Kg	10/16/25 10:40	VY101625
95-47-6	o-Xylene	20.5		1	0.82	5.00	ug/Kg	10/16/25 10:40	VY101625
100-42-5	Styrene	21.1		1	0.71	5.00	ug/Kg	10/16/25 10:40	VY101625
75-25-2	Bromoform	19.5		1	0.86	5.00	ug/Kg	10/16/25 10:40	VY101625

Report of Analysis

Client: AECOM	Date Collected:	
Project: AE1-CTY 3.2.Z-PR-DOCK-Des-ODC - 60693795-1719206	Date Received:	
Client Sample ID: VY1016SBSD01	SDG No.:	Q3363
Lab Sample ID: VY1016SBSD01	Matrix:	SOIL
Analytical Method: 8260D	% Solid:	100
Sample Wt/Vol: 5 g	Level: LOW	Test: VOC-TCLVOA-10
	Final Vol: 5000 uL	

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
98-82-8	Isopropylbenzene	20.9		1	0.78	5.00	ug/Kg	10/16/25 10:40	VY101625
79-34-5	1,1,2,2-Tetrachloroethane	18.6		1	1.20	5.00	ug/Kg	10/16/25 10:40	VY101625
541-73-1	1,3-Dichlorobenzene	21.0		1	1.70	5.00	ug/Kg	10/16/25 10:40	VY101625
106-46-7	1,4-Dichlorobenzene	21.0		1	1.60	5.00	ug/Kg	10/16/25 10:40	VY101625
95-50-1	1,2-Dichlorobenzene	20.5		1	1.50	5.00	ug/Kg	10/16/25 10:40	VY101625
96-12-8	1,2-Dibromo-3-Chloropropane	17.1		1	1.80	5.00	ug/Kg	10/16/25 10:40	VY101625
120-82-1	1,2,4-Trichlorobenzene	18.3		1	3.00	5.00	ug/Kg	10/16/25 10:40	VY101625
87-61-6	1,2,3-Trichlorobenzene	17.9		1	3.20	5.00	ug/Kg	10/16/25 10:40	VY101625
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	44.7			63 - 155	89%	SPK: 50		
1868-53-7	Dibromofluoromethane	47.6			70 - 134	95%	SPK: 50		
2037-26-5	Toluene-d8	48.2			74 - 123	96%	SPK: 50		
460-00-4	4-Bromofluorobenzene	45.5			17 - 146	91%	SPK: 50		
INTERNAL STANDARDS									
		Area Count							
363-72-4	Pentafluorobenzene	502000							
540-36-3	1,4-Difluorobenzene	736000							
3114-55-4	Chlorobenzene-d5	641000							
3855-82-1	1,4-Dichlorobenzene-d4	331000							

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
 Data File : VY023484.D
 Acq On : 16 Oct 2025 10:40
 Operator : SY/MD
 Sample : VY1016SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1016SBS01

Manual Integrations APPROVED

Reviewed By : John Carlone 10/17/2025
 Supervised By : Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:52:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.713	168	502001	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	735573	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	641486	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	331485	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.061	65	187444	44.653	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	89.300%
35) Dibromofluoromethane	7.640	113	215155	47.603	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	95.200%
50) Toluene-d8	10.109	98	810898	48.176	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	96.360%
62) 4-Bromofluorobenzene	12.408	95	252957	45.520	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	91.040%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.867	85	77746	21.516	ug/l	99
3) Chloromethane	2.074	50	100018	20.319	ug/l	98
4) Vinyl Chloride	2.208	62	135696	21.165	ug/l	98
5) Bromomethane	2.598	94	116473	21.648	ug/l	98
6) Chloroethane	2.739	64	93951	21.498	ug/l	100
7) Trichlorofluoromethane	3.062	101	181972	20.442	ug/l	98
8) Diethyl Ether	3.458	74	41950	18.034	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.818	101	99481	21.536	ug/l	99
10) Methyl Iodide	4.007	142	106817	20.771	ug/l	99
11) Tert butyl alcohol	4.854	59	22720	72.752	ug/l	98
12) 1,1-Dichloroethene	3.793	96	92958	20.759	ug/l	94
13) Acrolein	3.653	56	25844	58.566	ug/l	100
14) Allyl chloride	4.391	41	107636	19.723	ug/l	98
15) Acrylonitrile	5.061	53	77444	86.997	ug/l	98
16) Acetone	3.866	43	112086	112.157	ug/l	97
17) Carbon Disulfide	4.110	76	267278	20.854	ug/l	99
18) Methyl Acetate	4.391	43	40197	15.333	ug/l	99
19) Methyl tert-butyl Ether	5.122	73	187070	17.382	ug/l	98
20) Methylene Chloride	4.622	84	103234	19.103	ug/l	98
21) trans-1,2-Dichloroethene	5.122	96	104092	21.113	ug/l	96
22) Diisopropyl ether	6.018	45	242013	20.048	ug/l	93
23) Vinyl Acetate	5.964	43	601879	92.114	ug/l	100
24) 1,1-Dichloroethane	5.921	63	167060	20.892	ug/l	97
25) 2-Butanone	6.896	43	115674	94.810	ug/l	98
26) 2,2-Dichloropropane	6.890	77	155717	21.223	ug/l	99
27) cis-1,2-Dichloroethene	6.896	96	117287	20.595	ug/l	98
28) Bromochloromethane	7.244	49	59319	19.871	ug/l	100
29) Tetrahydrofuran	7.262	42	53146	76.816	ug/l	99
30) Chloroform	7.427	83	184929	21.049	ug/l	98
31) Cyclohexane	7.707	56	137151	19.640	ug/l	96
32) 1,1,1-Trichloroethane	7.622	97	171883	21.529	ug/l	100
36) 1,1-Dichloropropene	7.841	75	128285	21.439	ug/l	100
37) Ethyl Acetate	6.988	43	41206	17.382	ug/l	98
38) Carbon Tetrachloride	7.817	117	159005	21.915	ug/l	99
39) Methylcyclohexane	9.109	83	154442	19.823	ug/l	98
40) Benzene	8.085	78	407643	21.512	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
 Data File : VY023484.D
 Acq On : 16 Oct 2025 10:40
 Operator : SY/MD
 Sample : VY1016SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1016SBS01

Manual Integrations APPROVED

Reviewed By : John Carlone 10/17/2025
 Supervised By : Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:52:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.226	41	20734	16.172	ug/l #	69
42) 1,2-Dichloroethane	8.158	62	97227	19.894	ug/l	99
43) Isopropyl Acetate	8.201	43	79148	16.744	ug/l	99
44) Trichloroethene	8.866	130	117518	21.188	ug/l	99
45) 1,2-Dichloropropane	9.146	63	88037	21.033	ug/l	98
46) Dibromomethane	9.231	93	52495	19.834	ug/l	98
47) Bromodichloromethane	9.426	83	141006	21.154	ug/l	98
48) Methyl methacrylate	9.225	41	36085	16.250	ug/l	95
49) 1,4-Dioxane	9.231	88	9582	312.260	ug/l	95
51) 4-Methyl-2-Pentanone	9.999	43	198570	81.306	ug/l	99
52) Toluene	10.170	92	261803	21.278	ug/l	98
53) t-1,3-Dichloropropene	10.396	75	112101	19.341	ug/l	99
54) cis-1,3-Dichloropropene	9.859	75	139132	20.339	ug/l	98
55) 1,1,2-Trichloroethane	10.573	97	70357	19.768	ug/l	98
56) Ethyl methacrylate	10.438	69	69658	16.967	ug/l	99
57) 1,3-Dichloropropane	10.719	76	110437	19.582	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.713	63	158166	86.000	ug/l	99
59) 2-Hexanone	10.762	43	158050	90.555	ug/l	98
60) Dibromochloromethane	10.914	129	100851	20.211	ug/l	99
61) 1,2-Dibromoethane	11.018	107	64651	19.047	ug/l	99
64) Tetrachloroethene	10.646	164	141537	21.369	ug/l	99
65) Chlorobenzene	11.444	112	293996	21.072	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.517	131	104738	21.066	ug/l	99
67) Ethyl Benzene	11.517	91	469868	20.805	ug/l	99
68) m/p-Xylenes	11.627	106	390697	43.131	ug/l	100
69) o-Xylene	11.956	106	174249	20.508	ug/l	100
70) Styrene	11.969	104	294821	21.101	ug/l	100
71) Bromoform	12.133	173	60086	19.483	ug/l #	97
73) Isopropylbenzene	12.255	105	456938	20.917	ug/l	99
74) N-amyl acetate	12.072	43	63447	16.170	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.505	83	66295	18.555	ug/l	99
76) 1,2,3-Trichloropropane	12.554	75	50031m	17.107	ug/l	
77) Bromobenzene	12.529	156	117334	20.204	ug/l	100
78) n-propylbenzene	12.597	91	544694	21.547	ug/l	100
79) 2-Chlorotoluene	12.676	91	312601	21.117	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	383296	21.713	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	21112	17.702	ug/l	99
82) 4-Chlorotoluene	12.779	91	328432	21.542	ug/l	100
83) tert-Butylbenzene	12.993	119	342195	20.995	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	377464	21.426	ug/l	100
85) sec-Butylbenzene	13.176	105	504426	21.575	ug/l	100
86) p-Isopropyltoluene	13.292	119	426494	21.425	ug/l	100
87) 1,3-Dichlorobenzene	13.285	146	237457	20.997	ug/l	100
88) 1,4-Dichlorobenzene	13.365	146	234494	20.994	ug/l	100
89) n-Butylbenzene	13.615	91	364346	21.005	ug/l	99
90) Hexachloroethane	13.877	117	93382	21.810	ug/l	98
91) 1,2-Dichlorobenzene	13.657	146	203490	20.523	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	9999	17.056	ug/l	99
93) 1,2,4-Trichlorobenzene	14.919	180	113073	18.293	ug/l	98
94) Hexachlorobutadiene	15.023	225	81302	21.100	ug/l	99
95) Naphthalene	15.145	128	148689	15.106	ug/l	99
96) 1,2,3-Trichlorobenzene	15.328	180	95795	17.892	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
Data File : VY023484.D
Acq On : 16 Oct 2025 10:40
Operator : SY/MD
Sample : VY1016SBSD01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1016SBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 10/17/2025
Supervised By :Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:52:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
Quant Title : SW846 8260
QLast Update : Wed Oct 08 05:12:50 2025
Response via : Initial Calibration

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

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

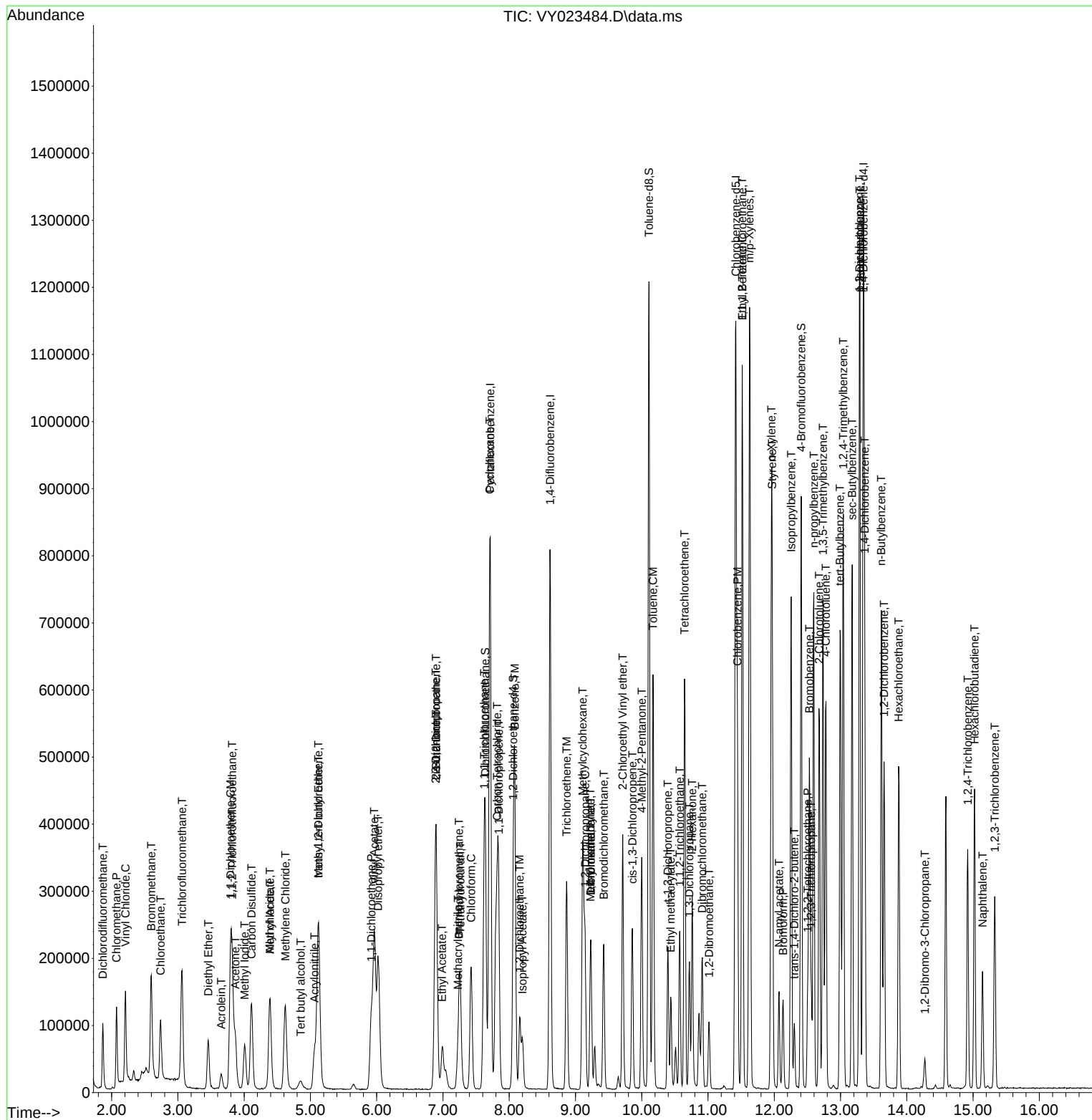
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY101625\
 Data File : VY023484.D
 Acq On : 16 Oct 2025 10:40
 Operator : SY/MD
 Sample : VY1016SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/soil
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1016SBS01

Manual Integrations APPROVED

Reviewed By : John Carlone 10/17/2025
 Supervised By : Mahesh Dadoda 10/17/2025

Quant Time: Oct 17 01:52:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y100725S.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 08 05:12:50 2025
 Response via : Initial Calibration



Manual Integration Report

Sequence:	VW100125	Instrument	MSVOA_w
-----------	----------	------------	---------

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VW032313.D	1,2,3-Trichloropropane	MMDadoda	10/3/2025 2:27:08 AM	SAM	10/3/2025 2:31:09 AM	Peak Integrated by Software
VSTDICC010	VW032314.D	1,2,3-Trichloropropane	MMDadoda	10/3/2025 2:27:10 AM	SAM	10/3/2025 2:31:10 AM	Peak Integrated by Software
VSTDICC020	VW032315.D	1,2,3-Trichloropropane	MMDadoda	10/3/2025 2:27:11 AM	SAM	10/3/2025 2:31:12 AM	Peak Integrated by Software
VSTDICCC050	VW032316.D	1,2,3-Trichloropropane	MMDadoda	10/3/2025 2:27:13 AM	SAM	10/3/2025 2:31:13 AM	Peak Integrated by Software
VSTDICC100	VW032317.D	1,2,3-Trichloropropane	MMDadoda	10/3/2025 2:27:14 AM	SAM	10/3/2025 2:31:14 AM	Peak Integrated by Software
VSTDICC150	VW032318.D	1,2,3-Trichloropropane	MMDadoda	10/3/2025 2:27:16 AM	SAM	10/3/2025 2:31:16 AM	Peak Integrated by Software
VSTDICV050	VW032320.D	1,2,3-Trichloropropane	MMDadoda	10/3/2025 2:27:18 AM	SAM	10/3/2025 2:31:17 AM	Peak Integrated by Software

Manual Integration Report

Sequence:	VW102025	Instrument	MSVOA_w
-----------	----------	------------	---------

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VW032378.D	1,2,3-Trichloropropane	Amit	10/21/2025 12:23:15 PM	sam	10/21/2025 12:57:29 PM	Peak Integrated by Software
VW1020SBS01	VW032380.D	1,2,3-Trichloropropane	Amit	10/21/2025 12:23:18 PM	sam	10/21/2025 12:57:35 PM	Peak Integrated by Software
VSTDCCC050	VW032403.D	1,2,3-Trichloropropane	Amit	10/21/2025 12:24:06 PM	sam	10/21/2025 12:58:11 PM	Peak Integrated by Software

Manual Integration Report

Sequence:	VY100725	Instrument	MSVOA_y
-----------	----------	------------	---------

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDIC005	VY023384.D	1,2,3-Trichloropropane	sam	10/10/2025 2:59:48 AM	MMdadoda	10/10/2025 4:37:28 AM	Peak Integrated by Software
VSTDIC005	VY023384.D	2-Chloroethyl Vinyl ether	sam	10/10/2025 2:59:48 AM	MMdadoda	10/10/2025 4:37:28 AM	Peak Integrated by Software
VSTDIC005	VY023384.D	Methacrylonitrile	sam	10/10/2025 2:59:48 AM	MMdadoda	10/10/2025 4:37:28 AM	Peak Integrated by Software
VSTDIC010	VY023385.D	1,2,3-Trichloropropane	sam	10/10/2025 2:59:52 AM	MMdadoda	10/10/2025 4:37:33 AM	Peak Integrated by Software
VSTDIC010	VY023385.D	2-Chloroethyl Vinyl ether	sam	10/10/2025 2:59:52 AM	MMdadoda	10/10/2025 4:37:33 AM	Peak Integrated by Software
VSTDIC020	VY023386.D	1,2,3-Trichloropropane	sam	10/10/2025 2:59:56 AM	MMdadoda	10/10/2025 4:37:37 AM	Peak Integrated by Software
VSTDIC020	VY023386.D	2-Chloroethyl Vinyl ether	sam	10/10/2025 2:59:56 AM	MMdadoda	10/10/2025 4:37:37 AM	Peak Integrated by Software
VSTDIC020	VY023386.D	Methacrylonitrile	sam	10/10/2025 2:59:56 AM	MMdadoda	10/10/2025 4:37:37 AM	Peak Integrated by Software
VSTDICCC050	VY023387.D	1,2,3-Trichloropropane	sam	10/10/2025 3:00:01 AM	MMdadoda	10/10/2025 4:37:41 AM	Peak Integrated by Software
VSTDIC100	VY023388.D	1,2,3-Trichloropropane	sam	10/10/2025 3:00:05 AM	MMdadoda	10/10/2025 4:37:46 AM	Peak Integrated by Software
VSTDIC150	VY023389.D	1,2,3-Trichloropropane	sam	10/10/2025 3:00:09 AM	MMdadoda	10/10/2025 4:37:51 AM	Peak Integrated by Software
VSTDICV050	VY023391.D	1,2,3-Trichloropropane	sam	10/10/2025 3:00:14 AM	MMdadoda	10/10/2025 4:37:55 AM	Peak Integrated by Software



Manual Integration Report

Sequence:	VY100725	Instrument	MSVOA_y
-----------	----------	------------	---------

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
-----------	---------	-----------	-----------	-----------	---------------	---------------	--------

Manual Integration Report

Sequence:	Vy101625	Instrument	MSVOA_y
-----------	----------	------------	---------

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VY023481.D	1,2,3-Trichloropropane	JOHN	10/17/2025 3:38:56 PM	MMDadoda	10/17/2025 3:44:13 PM	Peak Integrated by Software
VY1016SBS01	VY023483.D	1,2,3-Trichloropropane	JOHN	10/17/2025 3:39:00 PM	MMDadoda	10/17/2025 3:44:16 PM	Peak Integrated by Software
VY1016SBS01	VY023483.D	Methacrylonitrile	JOHN	10/17/2025 3:39:00 PM	MMDadoda	10/17/2025 3:44:16 PM	Peak Integrated by Software
VY1016SBSD0 1	VY023484.D	1,2,3-Trichloropropane	JOHN	10/17/2025 3:39:05 PM	MMDadoda	10/17/2025 3:44:19 PM	Peak Integrated by Software

Instrument ID: **MSVOA_W**

Daily Analysis Runlog For Sequence/QC Batch ID # VW100125

Review By	Mahesh Dadoda	Review On	10/3/2025 2:27:29 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	10/3/2025 2:31:29 AM		
SubDirectory	VW100125	HP Acquire Method	MSVOA_W	HP Processing Method	82w100125s.m
STD. NAME		STD REF.#			
Tune/Reschk		VP135712			
Initial Calibration Stds		VP135713,VP135714,VP135715,VP135716,VP135717,VP135718			
CCC					
Internal Standard/PEM		VP133934			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VW032312.D	01 Oct 2025 08:12	SY/MD	Ok
2	VSTDIC005	VW032313.D	01 Oct 2025 13:12	SY/MD	Ok,M
3	VSTDIC010	VW032314.D	01 Oct 2025 13:34	SY/MD	Ok,M
4	VSTDIC020	VW032315.D	01 Oct 2025 14:15	SY/MD	Ok,M
5	VSTDIC050	VW032316.D	01 Oct 2025 14:37	SY/MD	Ok,M
6	VSTDIC100	VW032317.D	01 Oct 2025 14:59	SY/MD	Ok,M
7	VSTDIC150	VW032318.D	01 Oct 2025 15:20	SY/MD	Ok,M
8	VIBLK	VW032319.D	01 Oct 2025 15:42	SY/MD	Ok
9	VSTDICV050	VW032320.D	01 Oct 2025 16:04	SY/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_W**

Daily Analysis Runlog For Sequence/QC Batch ID # VW102025

Review By	Semsettin Yesilyurt	Review On	10/21/2025 1:05:25 PM		
Supervise By	Maresh Dadoda	Supervise On	10/27/2025 8:11:29 AM		
SubDirectory	VW102025	HP Acquire Method	MSVOA_W	HP Processing Method	82w100125s.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP135844			
CCC		VP135847,VP135848			
Internal Standard/PEM		VP133934			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VW032377.D	20 Oct 2025 09:36	SY/MD	Ok
2	VSTDCCC050	VW032378.D	20 Oct 2025 10:20	SY/MD	Ok,M
3	VW1020SBL01	VW032379.D	20 Oct 2025 11:11	SY/MD	Ok
4	VW1020SBS01	VW032380.D	20 Oct 2025 11:41	SY/MD	Ok,M
5	VW1020SBSD01	VW032381.D	20 Oct 2025 12:03	SY/MD	Ok,M
6	Q3363-05	VW032382.D	20 Oct 2025 12:44	SY/MD	Ok
7	Q3375-01	VW032383.D	20 Oct 2025 13:07	SY/MD	Ok
8	Q3375-02	VW032384.D	20 Oct 2025 13:29	SY/MD	Ok
9	Q3375-03	VW032385.D	20 Oct 2025 13:50	SY/MD	Ok
10	Q3375-04	VW032386.D	20 Oct 2025 14:12	SY/MD	Ok
11	Q3375-05	VW032387.D	20 Oct 2025 14:34	SY/MD	Ok
12	Q3376-01	VW032388.D	20 Oct 2025 14:56	SY/MD	Ok
13	Q3376-02	VW032389.D	20 Oct 2025 15:18	SY/MD	ReRun
14	Q3376-03	VW032390.D	20 Oct 2025 15:40	SY/MD	Ok,M
15	Q3376-04	VW032391.D	20 Oct 2025 16:02	SY/MD	Ok,M
16	Q3376-05	VW032392.D	20 Oct 2025 16:24	SY/MD	Ok
17	Q3393-01	VW032393.D	20 Oct 2025 16:46	SY/MD	Ok
18	Q3393-02	VW032394.D	20 Oct 2025 17:08	SY/MD	Ok,M
19	Q3393-03	VW032395.D	20 Oct 2025 17:29	SY/MD	ReRun
20	Q3395-01	VW032396.D	20 Oct 2025 17:51	SY/MD	Ok
21	Q3395-02	VW032397.D	20 Oct 2025 18:14	SY/MD	Ok

Instrument ID: **MSVOA_W**

Daily Analysis Runlog For Sequence/QCBatch ID # VW102025

Review By	Semsettin Yesilyurt	Review On	10/21/2025 1:05:25 PM		
Supervise By	Mahesh Dadoda	Supervise On	10/27/2025 8:11:29 AM		
SubDirectory	VW102025	HP Acquire Method	MSVOA_W	HP Processing Method	82w100125s.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP135844			
CCC		VP135847,VP135848			
Internal Standard/PEM		VP133934			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

22	Q3395-05	VW032398.D	20 Oct 2025 18:36	SY/MD	Ok,M
23	Q3395-07	VW032399.D	20 Oct 2025 18:58	SY/MD	Ok
24	Q3395-03MS	VW032400.D	20 Oct 2025 19:20	SY/MD	ReRun
25	Q3395-04MSD	VW032401.D	20 Oct 2025 19:42	SY/MD	ReRun
26	VIBLK	VW032402.D	20 Oct 2025 20:04	SY/MD	Ok
27	VSTDCCC050	VW032403.D	20 Oct 2025 20:26	SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY100725

Review By	Semsettin Yesilyurt	Review On	10/10/2025 3:00:22 AM		
Supervise By	Maresh Dadoda	Supervise On	10/10/2025 4:38:02 AM		
SubDirectory	VY100725	HP Acquire Method	MSVOA_Y	HP Processing Method	82y100725s.m
STD. NAME		STD REF.#			
Tune/Reschk		VP135766			
Initial Calibration Stds		VP135767,VP135768,VP135769,VP135770,VP135771,VP135772			
CCC					
Internal Standard/PEM		VP133934			
ICV/I.BLK		VP135773			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	Sampled	Data File Name	Date-Time	Operator	Status
1	BFB	VY023383.D	07 Oct 2025 08:43	SY/MD	Ok
2	VSTDICC005	VY023384.D	07 Oct 2025 09:17	SY/MD	Ok,M
3	VSTDICC010	VY023385.D	07 Oct 2025 10:02	SY/MD	Ok,M
4	VSTDICC020	VY023386.D	07 Oct 2025 11:24	SY/MD	Ok,M
5	VSTDICCC050	VY023387.D	07 Oct 2025 11:47	SY/MD	Ok,M
6	VSTDICC100	VY023388.D	07 Oct 2025 12:09	SY/MD	Ok,M
7	VSTDICC150	VY023389.D	07 Oct 2025 12:32	SY/MD	Ok,M
8	VIBLK	VY023390.D	07 Oct 2025 13:02	SY/MD	Ok
9	VSTDICV050	VY023391.D	07 Oct 2025 14:12	SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY101625

Review By	John Carlone	Review On	10/17/2025 3:39:22 PM		
Supervise By	Mahesh Dadoda	Supervise On	10/17/2025 3:44:25 PM		
SubDirectory	VY101625	HP Acquire Method	MSVOA_Y	HP Processing Method	82y100725s.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP135823			
CCC		VP135824,VP135825			
Internal Standard/PEM		VP133934			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VY023480.D	16 Oct 2025 08:42	SY/MD	Ok
2	VSTDCCC050	VY023481.D	16 Oct 2025 09:12	SY/MD	Ok,M
3	VY1016SBL01	VY023482.D	16 Oct 2025 09:46	SY/MD	Ok
4	VY1016SBS01	VY023483.D	16 Oct 2025 10:17	SY/MD	Ok,M
5	VY1016SBSD01	VY023484.D	16 Oct 2025 10:40	SY/MD	Ok,M
6	Q3355-01RE	VY023485.D	16 Oct 2025 11:18	SY/MD	Confirms
7	Q3363-01	VY023486.D	16 Oct 2025 12:57	SY/MD	Ok
8	Q3363-02	VY023487.D	16 Oct 2025 13:27	SY/MD	Ok
9	Q3363-03	VY023488.D	16 Oct 2025 13:51	SY/MD	Ok
10	Q3363-04	VY023489.D	16 Oct 2025 14:14	SY/MD	Ok
11	Q3363-05	VY023490.D	16 Oct 2025 14:37	SY/MD	ReRun
12	Q3366-01	VY023491.D	16 Oct 2025 15:40	SY/MD	ReRun
13	Q3366-03	VY023492.D	16 Oct 2025 16:03	SY/MD	Ok
14	Q3367-01	VY023493.D	16 Oct 2025 16:27	SY/MD	ReRun

M : Manual Integration

Instrument ID: MSVOA_W

Daily Analysis Runlog For Sequence/QC Batch ID # VW100125

Review By	Mahesh Dadoda	Review On	10/3/2025 2:27:29 AM
Supervise By	Semsettin Yesilyurt	Supervise On	10/3/2025 2:31:29 AM
SubDirectory	VW100125	HP Acquire Method	MSVOA_W
		HP Processing Method	82w100125s.m

STD. NAME	STD REF.#
Tune/Reschk	VP135712
Initial Calibration Stds	VP135713,VP135714,VP135715,VP135716,VP135717,VP135718
CCC	
Internal Standard/PEM	VP133934
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VW032312.D	01 Oct 2025 08:12		SY/MD	Ok
2	VSTDICC005	VSTDICC005	VW032313.D	01 Oct 2025 13:12	Pass for DOD	SY/MD	Ok,M
3	VSTDICC010	VSTDICC010	VW032314.D	01 Oct 2025 13:34	LR-20	SY/MD	Ok,M
4	VSTDICC020	VSTDICC020	VW032315.D	01 Oct 2025 14:15		SY/MD	Ok,M
5	VSTDICCC050	VSTDICCC050	VW032316.D	01 Oct 2025 14:37		SY/MD	Ok,M
6	VSTDICC100	VSTDICC100	VW032317.D	01 Oct 2025 14:59		SY/MD	Ok,M
7	VSTDICC150	VSTDICC150	VW032318.D	01 Oct 2025 15:20		SY/MD	Ok,M
8	VIBLK	VIBLK	VW032319.D	01 Oct 2025 15:42		SY/MD	Ok
9	VSTDICV050	ICVVW100125	VW032320.D	01 Oct 2025 16:04		SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_W

Daily Analysis Runlog For Sequence/QC Batch ID # VW102025

Review By	Semsettin Yesilyurt	Review On	10/21/2025 1:05:25 PM
Supervise By	Mahesh Dadoda	Supervise On	10/27/2025 8:11:29 AM
SubDirectory	VW102025	HP Acquire Method	MSVOA_W HP Processing Method 82w100125s.m

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP135844
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP135847,VP135848 VP133934

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VW032377.D	20 Oct 2025 09:36		SY/MD	Ok
2	VSTDCCC050	VSTDCCC050	VW032378.D	20 Oct 2025 10:20		SY/MD	Ok,M
3	VW1020SBL01	VW1020SBL01	VW032379.D	20 Oct 2025 11:11		SY/MD	Ok
4	VW1020SBS01	VW1020SBS01	VW032380.D	20 Oct 2025 11:41		SY/MD	Ok,M
5	VW1020SBSD01	VW1020SBSD01	VW032381.D	20 Oct 2025 12:03		SY/MD	Ok,M
6	Q3363-05	COMP01-20251015	VW032382.D	20 Oct 2025 12:44	vial-B	SY/MD	Ok
7	Q3375-01	PR132-S02-074099-20	VW032383.D	20 Oct 2025 13:07	vial-A	SY/MD	Ok
8	Q3375-02	PR132-S04-000013-20	VW032384.D	20 Oct 2025 13:29	vial-A	SY/MD	Ok
9	Q3375-03	PR132-S05-000057-20	VW032385.D	20 Oct 2025 13:50	vial-A	SY/MD	Ok
10	Q3375-04	PR132-S02-010074-20	VW032386.D	20 Oct 2025 14:12	vial-A	SY/MD	Ok
11	Q3375-05	PR132-DP02-20251016	VW032387.D	20 Oct 2025 14:34	vial-A	SY/MD	Ok
12	Q3376-01	PR132-S05-057082-20	VW032388.D	20 Oct 2025 14:56	vial-A	SY/MD	Ok
13	Q3376-02	PR132-DP01-20251016	VW032389.D	20 Oct 2025 15:18	vial-A Surrogate fail	SY/MD	ReRun
14	Q3376-03	PR132-COMP2-20251016	VW032390.D	20 Oct 2025 15:40	vial-A	SY/MD	Ok,M
15	Q3376-04	PR132-S12-047072-20	VW032391.D	20 Oct 2025 16:02	vial-A	SY/MD	Ok,M
16	Q3376-05	PR132-S12-020047-20	VW032392.D	20 Oct 2025 16:24	vial-A	SY/MD	Ok
17	Q3393-01	PR132-S10-000022-20	VW032393.D	20 Oct 2025 16:46	vial-A	SY/MD	Ok
18	Q3393-02	PR132-S10-022047-20	VW032394.D	20 Oct 2025 17:08	vial-A	SY/MD	Ok,M

Instrument ID: MSVOA_W

Daily Analysis Runlog For Sequence/QC Batch ID # VW102025

Review By	Semsettin Yesilyurt	Review On	10/21/2025 1:05:25 PM		
Supervise By	Mahesh Dadoda	Supervise On	10/27/2025 8:11:29 AM		
SubDirectory	VW102025	HP Acquire Method	MSVOA_W	HP Processing Method	82w100125s.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP135844			
CCC		VP135847,VP135848			
Internal Standard/PEM		VP133934			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

19	Q3393-03	PR132-S08-013038-20	VW032395.D	20 Oct 2025 17:29	vial-A Surrogate fail	SY/MD	ReRun
20	Q3395-01	PR132-S09-000051-20	VW032396.D	20 Oct 2025 17:51	vial-A	SY/MD	Ok
21	Q3395-02	PR132-S07-000102-20	VW032397.D	20 Oct 2025 18:14	vial-A	SY/MD	Ok
22	Q3395-05	PR132-S07-102116-20	VW032398.D	20 Oct 2025 18:36	vial-A	SY/MD	Ok,M
23	Q3395-07	PR132-S08-038048-20	VW032399.D	20 Oct 2025 18:58	vial-A	SY/MD	Ok
24	Q3395-03MS	PR132-S07-000102-20	VW032400.D	20 Oct 2025 19:20	vial-A Internal Standard Fail	SY/MD	ReRun
25	Q3395-04MSD	PR132-S07-000102-20	VW032401.D	20 Oct 2025 19:42	vial-A Internal Standard Fail	SY/MD	ReRun
26	VIBLK	VIBLK	VW032402.D	20 Oct 2025 20:04		SY/MD	Ok
27	VSTDCCC050	VSTDCCC050EC	VW032403.D	20 Oct 2025 20:26		SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY100725

Review By	Semsettin Yesilyurt	Review On	10/10/2025 3:00:22 AM
Supervise By	Maresh Dadoda	Supervise On	10/10/2025 4:38:02 AM
SubDirectory	VY100725	HP Acquire Method	MSVOA_Y HP Processing Method 82y100725s.m
STD. NAME	STD REF.#		
Tune/Reschk	VP135766		
Initial Calibration Stds	VP135767,VP135768,VP135769,VP135770,VP135771,VP135772		
CCC			
Internal Standard/PEM	VP133934		
ICV/I.BLK	VP135773		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY023383.D	07 Oct 2025 08:43		SY/MD	Ok
2	VSTDICC005	VSTDICC005	VY023384.D	07 Oct 2025 09:17		SY/MD	Ok,M
3	VSTDICC010	VSTDICC010	VY023385.D	07 Oct 2025 10:02		SY/MD	Ok,M
4	VSTDICC020	VSTDICC020	VY023386.D	07 Oct 2025 11:24		SY/MD	Ok,M
5	VSTDICCC050	VSTDICCC050	VY023387.D	07 Oct 2025 11:47		SY/MD	Ok,M
6	VSTDICC100	VSTDICC100	VY023388.D	07 Oct 2025 12:09		SY/MD	Ok,M
7	VSTDICC150	VSTDICC150	VY023389.D	07 Oct 2025 12:32		SY/MD	Ok,M
8	VIBLK	VIBLK	VY023390.D	07 Oct 2025 13:02		SY/MD	Ok
9	VSTDICV050	ICVVY100725	VY023391.D	07 Oct 2025 14:12		SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY101625

Review By	John Carlone	Review On	10/17/2025 3:39:22 PM
Supervise By	Mahesh Dadoda	Supervise On	10/17/2025 3:44:25 PM
SubDirectory	VY101625	HP Acquire Method	MSVOA_Y HP Processing Method 82y100725s.m
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP135823		
CCC	VP135824,VP135825		
Internal Standard/PEM	VP133934		
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY023480.D	16 Oct 2025 08:42		SY/MD	Ok
2	VSTDCCC050	VSTDCCC050	VY023481.D	16 Oct 2025 09:12		SY/MD	Ok,M
3	VY1016SBL01	VY1016SBL01	VY023482.D	16 Oct 2025 09:46		SY/MD	Ok
4	VY1016SBS01	VY1016SBS01	VY023483.D	16 Oct 2025 10:17		SY/MD	Ok,M
5	VY1016SBSD01	VY1016SBSD01	VY023484.D	16 Oct 2025 10:40		SY/MD	Ok,M
6	Q3355-01RE	EO-03-101525RE	VY023485.D	16 Oct 2025 11:18	vial-B Internal Standard Fail	SY/MD	Confirms
7	Q3363-01	PR132-SO1-085011-20	VY023486.D	16 Oct 2025 12:57	vial-A	SY/MD	Ok
8	Q3363-02	PR132-SO1-039085-20	VY023487.D	16 Oct 2025 13:27	vial-A	SY/MD	Ok
9	Q3363-03	PR132-SO3-028010-20	VY023488.D	16 Oct 2025 13:51	vial-A	SY/MD	Ok
10	Q3363-04	PR132-SO3-010013-20	VY023489.D	16 Oct 2025 14:14	vial-A	SY/MD	Ok
11	Q3363-05	COMP01-20251015	VY023490.D	16 Oct 2025 14:37	vial-A Internal Standard Fail	SY/MD	ReRun
12	Q3366-01	TR-06-101625	VY023491.D	16 Oct 2025 15:40	vial-A Internal Standard Fail	SY/MD	ReRun
13	Q3366-03	TR-1-101625	VY023492.D	16 Oct 2025 16:03	vial-A	SY/MD	Ok
14	Q3367-01	BU-03-101625	VY023493.D	16 Oct 2025 16:27	vial-A Internal Standard Fail	SY/MD	ReRun

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/17/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 10/16/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:15
Out Date: 10/17/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137562

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3307-02	S-39(9.5-10.0)	1	1.14	10.71	11.85	10.87	90.8	
Q3307-03	S-39(14.5-15.0)	2	1.15	10.38	11.53	10.4	89.1	
Q3307-04	S-37(7.0-7.5)	3	1.13	10.10	11.23	10.06	88.4	
Q3307-05	S-37(14.5-15.0)	4	1.16	10.22	11.38	10.35	89.9	
Q3307-06	S-38(0-0.5)	5	1.19	10.65	11.84	10.77	90.0	
Q3307-07	S-38(6.0-6.5)	6	1.18	10.35	11.53	10.42	89.3	
Q3307-08	S-38(14.5-15.0)	7	1.17	10.18	11.35	10.39	90.6	
Q3307-09	S-36(0-0.5)	8	1.13	10.34	11.47	10.73	92.8	
Q3307-10	S-36(7.0-7.5)	9	1.18	10.53	11.71	10.63	89.7	
Q3307-11	S-36(14.5-15.0)	10	1.13	11.04	12.17	10.97	89.1	
Q3307-17	S-35(7.0-7.5)	11	1.15	10.83	11.98	10.77	88.8	
Q3307-18	S-35(14.5-15.0)	12	1.12	10.40	11.52	10.33	88.6	
Q3363-01	PR132-SOL-085011-20251015	13	1.13	10.82	11.95	6.55	50.1	
Q3363-02	PR132-SOL-039085-20251015	14	1.15	10.53	11.68	7.11	56.6	
Q3363-03	PR132-SOL-028010-20251015	15	1.15	10.29	11.44	6.79	54.8	
Q3363-04	PR132-SOL-010013-20251015	16	1.18	10.94	12.12	6.81	51.5	
Q3363-05	COMP01-20251015	17	1.19	10.32	11.51	6.91	55.4	
Q3366-01	TR-06-101625	18	1.14	10.33	11.47	10.95	95.0	
Q3366-02	TR-06-101625-E2	19	1.15	10.32	11.47	11.00	95.4	
Q3366-03	TR-1-101625	20	1.19	10.30	11.49	10.7	92.3	
Q3366-04	TR-01-101625-E2	21	1.19	10.43	11.62	11.12	95.2	
Q3367-01	BU-03-101625	22	1.11	10.51	11.62	10.81	92.3	
Q3369-01	MH-22	23	1.16	10.61	11.77	10.62	89.2	
Q3369-02	MH-22-EPH	24	1.15	10.38	11.53	10.4	89.1	
Q3369-03	MH-22-VOC	25	1.16	10.36	11.52	10.4	89.2	
Q3369-05	MH-21	26	1.19	10.76	11.95	10.81	89.4	
Q3369-06	MH-21-EPH	27	1.12	11.10	12.22	11.12	90.1	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/17/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 10/16/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:15
Out Date: 10/17/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137562

Lab ID	Client SampleID	Dish #	Dish Wt (g) (A)	Sample Wt (g)	Dish + Sample Wt (g) (B)	Dish+Dry Sample Wt (g) (C)	% Solid	Comments
Q3369-07	MH-21-VOC	28	1.16	10.45	11.61	10.66	90.9	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

VB 127562

WorkList Name : %1-101625

WorkList ID : 192491

Department : Wet-Chemistry

Date : 10-16-2025 07:46:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3307-02	S-39(9.5-10.0)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-03	S-39(14.5-15.0)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-04	S-37(7.0-7.5)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-05	S-37(14.5-15.0)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-06	S-38(0-0.5)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-07	S-38(6.0-6.5)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-08	S-38(14.5-15.0)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-09	S-36(0-0.5)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-10	S-36(7.0-7.5)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-11	S-36(14.5-15.0)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-17	S-35(7.0-7.5)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3307-18	S-35(14.5-15.0)	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/07/2025	Chemtech -SO
Q3363-01	PR132-SOL-085011-20251015	Solid	Percent Solids	Cool 4 deg C	AECO02	D31	10/15/2025	Chemtech -SO
Q3363-02	PR132-SOL-039085-20251015	Solid	Percent Solids	Cool 4 deg C	AECO02	D31	10/15/2025	Chemtech -SO
Q3363-03	PR132-SOL-028010-20251015	Solid	Percent Solids	Cool 4 deg C	AECO02	D31	10/15/2025	Chemtech -SO
Q3363-04	PR132-SOL-010013-20251015	Solid	Percent Solids	Cool 4 deg C	AECO02	D31	10/15/2025	Chemtech -SO
Q3363-05	COMP01-20251015	Solid	Percent Solids	Cool 4 deg C	AECO02	D31	10/15/2025	Chemtech -SO
Q3366-01	TR-06-101625	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	10/16/2025	Chemtech -SO
Q3366-02	TR-06-101625-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	10/16/2025	Chemtech -SO
Q3366-03	TR-1-101625	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	10/16/2025	Chemtech -SO
Q3366-04	TR-01-101625-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	10/16/2025	Chemtech -SO

Date/Time

10-16-25 13:20

Raw Sample Received by:

VB 127562

Raw Sample Relinquished by:

CP 8

Date/Time

10-16-25

Raw Sample Received by:

CP 8

Raw Sample Relinquished by:

VB 127562

WORKLIST(Hardcopy Internal Chain)

137562

WorkList Name : %1-101625 WorkList ID : 192491 Department : Wet-Chemistry Date : 10-16-2025 07:46:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3367-01	BU-03-101625	Solid	Percent Solids	Cool 4 deg C	PSEG05	D11	10/16/2025	Chemtech -SO
Q3369-01	MH-22	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/16/2025	Chemtech -SO
Q3369-02	MH-22-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/16/2025	Chemtech -SO
Q3369-03	MH-22-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/16/2025	Chemtech -SO
Q3369-05	MH-21	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/16/2025	Chemtech -SO
Q3369-06	MH-21-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/16/2025	Chemtech -SO
Q3369-07	MH-21-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/16/2025	Chemtech -SO

Date/Time 10-16-25 15:20
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Date/Time 10-16-25 17:30
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Prep Standard - Chemical Standard Summary

Order ID : Q3363

Test : VOC-TCLVOA-10

Prepbatch ID :

Sequence ID/Qc Batch ID: VW102025,Vy101625,

Standard ID :

VP133934,VP134147,VP134149,VP134150,VP134934,VP134957,VP135552,VP135553,VP135823,VP135824,VP135825,VP135834,VP135835,VP135844,VP135847,VP135848,

Chemical ID :

V13391,V14200,V14204,V14205,V14290,V14509,V14510,V14531,V14532,V14625,V14636,V14637,V14638,V14639,V14673,V14727,V14728,V14803,V14815,V14844,V14906,V14921,V14928,V14929,V14951,V14952,V15073,V15074,V15075,W3112,

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1917	8260 Internal standard 50 ppm	VP133934	05/16/2025	11/12/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
05/21/2025								

FROM 0.10000ml of V14290 + 49.90000ml of V14921 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
252	8260 Working STD (BCM)-First source, 100PPM	VP134147	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
06/10/2025								

FROM 1.00000ml of V14673 + 19.00000ml of V14929 = Final Quantity: 20.000 ml

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1810	8260 Working Std(2-CVE)-800ppm	VP134149	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								06/10/2025

FROM 1.00000ml of V14636 + 1.00000ml of V14637 + 1.00000ml of V14638 + 1.00000ml of V14639 + 46.00000ml of V14929 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1811	8260 Working Std(2-CVE)-500ppm	VP134150	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								06/10/2025

FROM 7.50000ml of V14929 + 12.50000ml of VP134149 = Final Quantity: 20.000 ml

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
249	8260 Surrogate, 100PPM	VP134934	07/29/2025	01/29/2026	Semsettin Yesilyurt	None	None	Maresh Dadoda
08/06/2025								

FROM 0.10000ml of V14906 + 24.90000ml of V14625 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
218	BFB, 25PPM	VP134957	08/01/2025	11/22/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
08/06/2025								

FROM 0.50000ml of V13391 + 49.50000ml of V14625 = Final Quantity: 50.000 ml

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
257	8260 Calibration Working STD Mix-First source, 160PPM	VP135552	09/22/2025	11/03/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda 09/26/2025

FROM 0.40000ml of V14844 + 1.00000ml of V14200 + 1.00000ml of V14509 + 1.00000ml of V14510 + 1.00000ml of V14531 + 1.00000ml of V14532 + 1.00000ml of V14727 + 1.00000ml of V14728 + 1.00000ml of V14803 + 1.00000ml of V14815 + 1.00000ml of V14951 + 1.00000ml of V14952 + 1.50000ml of V14204 + 1.50000ml of V14205 + 10.60000ml of V14928 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
244	8260 Calibration Working STD Mix-First source, 100PPM	VP135553	09/22/2025	11/03/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda 09/26/2025

FROM 5.62500ml of V14928 + 9.37500ml of VP135552 = Final Quantity: 15.000 ml

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
732	BFB TUNE CHECK - SOIL	VP135823	10/16/2025	10/17/2025	Amit Patel	None	None	Maresh Dadoda
								10/17/2025

FROM 4.99800ml of W3112 + 0.00200ml of VP134957 = Final Quantity: 5.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
773	50 PPB CCC, 8260-SOIL	VP135824	10/16/2025	10/17/2025	Amit Patel	None	None	Maresh Dadoda
								10/17/2025

FROM 4.98000ml of W3112 + 0.00250ml of VP134147 + 0.00250ml of VP134150 + 0.00250ml of VP134934 + 0.00250ml of VP135553
+ 0.00500ml of VP133934 = Final Quantity: 5.000 ml

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
773	50 PPB CCC, 8260-SOIL	VP135825	10/16/2025	10/17/2025	Amit Patel	None	None	Maresh Dadoda
								10/17/2025

FROM 4.98000ml of W3112 + 0.00250ml of VP134147 + 0.00250ml of VP134150 + 0.00250ml of VP134934 + 0.00250ml of VP135553 + 0.00500ml of VP133934 = Final Quantity: 5.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
51	8260 Working STD (Acrolein) -first source, 800PPM	VP135834	10/17/2025	11/16/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								10/17/2025

FROM 1.00000ml of V15073 + 1.50000ml of V15074 + 1.50000ml of V15075 + 21.00000ml of V14928 = Final Quantity: 25.000 ml

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
56	8260 Working STD (Acrolein) -first source, 500PPM	VP135835	10/17/2025	11/16/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								10/17/2025

FROM 7.50000ml of V14928 + 12.50000ml of VP135834 = Final Quantity: 20.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
732	BFB TUNE CHECK - SOIL	VP135844	10/20/2025	10/21/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								10/21/2025

FROM 4.99800ml of W3112 + 0.00200ml of VP134957 = Final Quantity: 5.000 ml

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
773	50 PPB CCC, 8260-SOIL	VP135847	10/20/2025	10/21/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								10/21/2025

FROM 4.98000ml of W3112 + 0.00250ml of VP134147 + 0.00250ml of VP134150 + 0.00250ml of VP134934 + 0.00250ml of VP135553 + 0.00250ml of VP135835 + 0.00500ml of VP133934 = Final Quantity: 5.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
773	50 PPB CCC, 8260-SOIL	VP135848	10/20/2025	10/21/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								10/21/2025

FROM 4.98000ml of W3112 + 0.00250ml of VP134147 + 0.00250ml of VP134150 + 0.00250ml of VP134934 + 0.00250ml of VP135553 + 0.00250ml of VP135835 + 0.00500ml of VP133934 = Final Quantity: 5.000 ml

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0191805	11/22/2025	11/22/2024 / SAM	01/13/2023 / SAM	V13391

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0200785	03/22/2026	09/22/2025 / sam	02/28/2024 / SAM	V14200

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0200785	03/22/2026	09/22/2025 / sam	02/28/2024 / SAM	V14204

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0200785	03/22/2026	09/22/2025 / sam	02/28/2024 / SAM	V14205

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0210184	12/12/2025	12/12/2024 / SAM	04/15/2024 / SAM	V14290

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	03/22/2026	09/22/2025 / sam	09/17/2024 / SAM	V14509

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	03/22/2026	09/22/2025 / sam	09/17/2024 / SAM	V14510

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	091724	03/22/2026	09/22/2025 / sam	09/18/2024 / SAM	V14531

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	091724	03/22/2026	09/22/2025 / sam	09/18/2024 / SAM	V14532

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	2310762004	01/29/2026	07/29/2025 / SAM	11/26/2024 / SAM	V14625

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14636

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14637

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14638

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14639

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14673

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0216826	03/22/2026	09/22/2025 / sam	12/17/2024 / SAM	V14727

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0216826	03/22/2026	09/22/2025 / sam	12/17/2024 / SAM	V14728

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE	A0220471	03/22/2026	09/22/2025 / sam	01/08/2025 / SAM	V14803

LOTS

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE	A0220471	03/22/2026	09/22/2025 / sam	01/08/2025 / SAM	V14815

LOTS

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0217535	03/22/2026	09/22/2025 / sam	01/21/2025 / SAM	V14844

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0223904	07/29/2026	07/29/2025 / SAM	03/24/2025 / SAM	V14906

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	24G0262002	11/12/2025	05/12/2025 / SAM	05/09/2025 / SAM	V14921

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	24G0262002	03/22/2026	09/22/2025 / sam	05/09/2025 / SAM	V14928

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	24G0262002	12/06/2025	06/06/2025 / SAM	05/09/2025 / SAM	V14929

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0222076	03/22/2026	09/22/2025 / sam	05/19/2025 / SAM	V14951

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0222076	03/22/2026	09/22/2025 / sam	05/19/2025 / SAM	V14952

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	101625	11/16/2025	10/17/2025 / sam	10/17/2025 / sam	V15073

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	101625	11/16/2025	10/17/2025 / sam	10/17/2025 / sam	V15074

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	101625	11/16/2025	10/17/2025 / sam	10/17/2025 / sam	V15075

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / lwona	07/03/2024 / lwona	W3112

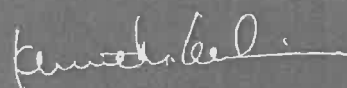
Material No.: 9077-02
Batch No.: 23I0762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.5 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.01
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Ken Koehnlein
Sr. Manager, Quality Assurance



Ree 03/17/24

CERTIFIED WEIGHT REPORT

Part Number: 95317

Lot Number: 021624

Description: Universal VOA Megamix

69 components

Expiration Date: 021627

Recommended Storage: Freezer (0 °C)

Nominal Concentration (µg/mL): 2000

NIST Test ID#: BUTB

Solvent(s): Lot#
Methanol EG359-USQ12

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

5E-05 Balance Uncertainty

Flask Uncertainty

Formulated By:	Prashant Chauhan	021624
Reviewed By:	Pedro L. Renteria	021624
DATE		

Compound	(KME)	Lot	DR	Initial	Initial	Nominal	Purity	Purity	Uncertainty	Target	Actual	Actual	Expanded	SDS Information		
														(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	or-rat 2400mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	or-rat 700mg/kg
3. Carbon disulfide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	or-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21056	0.21069	2001.1	8.5	1478-11-6	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0486)	MKBP9041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20746	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CAS000C	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	N/A
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm (28mg/m3/8H) (skin)	or-rat 14800mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20120	2001.4	8.1	78-83-1	50 ppm (150mg/m3/8H)	or-rat 3460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	128-98-7	1 ppm (3mg/m3/8H) (skin)	or-rat 120mg/kg
11. Methyl acrylate	(0755)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm (35mg/m3/8H) (skin)	or-rat 277mg/kg
12. Methyl methacrylate	(0404)	MKGW6137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20041	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	or-rat 787mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20220	2001.3	8.2	98-95-3	1 ppm (5mg/m3/8H) (skin)	or-rat 780mg/kg
14. 2-Nitropropane	(0461)	HG02JXK	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	78-46-9	10 ppm (35mg/m3/8H)	or-rat 720mg/kg
15. Pentachloroethane	(0460)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	78-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18990	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	78-13-1	1000 ppm (7600mg/m3/8H)	or-rat 43g/kg
17. Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	or-rat 915mg/kg
18. Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	or-rat 848mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	158-59-2	N/A	or-rat 848mg/kg
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	158-60-5	N/A	or-rat 1235mg/kg
21. Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	or-rat 820mg/kg
22. 1,1-Dichloroethane	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	or-rat 200mg/kg
23. Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	or-rat 930mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	or-rat 2350mg/kg
25. Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	67-68-3	60 ppm (240mg/m3) (CL)	or-rat 908mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	or-rat 108mg/kg
27. 1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	or-rat 725mg/kg
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	N/A
29. Trichloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.8	20.8	127-18-4	25 ppm (170mg/m3/8H) (final)	or-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	or-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40018.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	86-12-8	0.001 ppm	or-rat 170mg/kg
32. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	108-93-4	20 ppm (8H)	or-rat 108mg/kg
33. 1,2-Dichloroethane	35161	112322	0.05	5.00	40005.1	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	or-rat 670mg/kg
34. 1,2-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	or-rat 1847mg/kg
35. 1,3-Dichloropropane	35161	112322	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	or-rat 3600mg/kg
36. 1,1,3-Dichloropropane	35161	112322	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	2000.1	28.7	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropane	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10081-01-5	N/A	N/A
38. trans-1,3-Dichloropropane	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10081-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	or-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	830-20-6	N/A	or-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H) (skin)	or-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H) (skin)	or-rat 936mg/kg
43. Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	or-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	98-18-4	10 ppm (60mg/m3/8H)	or-rat 149.8mg/kg
45. Benzene	35162	050823	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	or-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	or-rat 2699mg/kg
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	or-rat >2000mg/kg
48. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	99-87-6	N/A	or-rat 4750mg/kg
49. p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
50. Naphthalene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	or-rat 5000mg/kg
51. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-98-3	200 ppm	or-rat 5000mg/kg
52. Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-81-6	N/A	or-rat 1390mg/kg
53. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 756mg/kg
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	or-rat 5g/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-87-8	N/A	or-rat 5000mg/kg
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	109-38-3	100 ppm (435mg/m3/8H)	or-rat 5g/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	96-06-6	N/A	N/A
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	135-98-8	N/A	or-rat 2240mg/kg
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	or-rat 2290mg/kg
60. Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	or-rat 3900mg/kg
61. 2-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	or-rat 2100mg/kg
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	or-rat 500mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	or-rat 1062mg/kg
64. 1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	108-46-7	75 ppm (450mg/m3/8H)	or-r

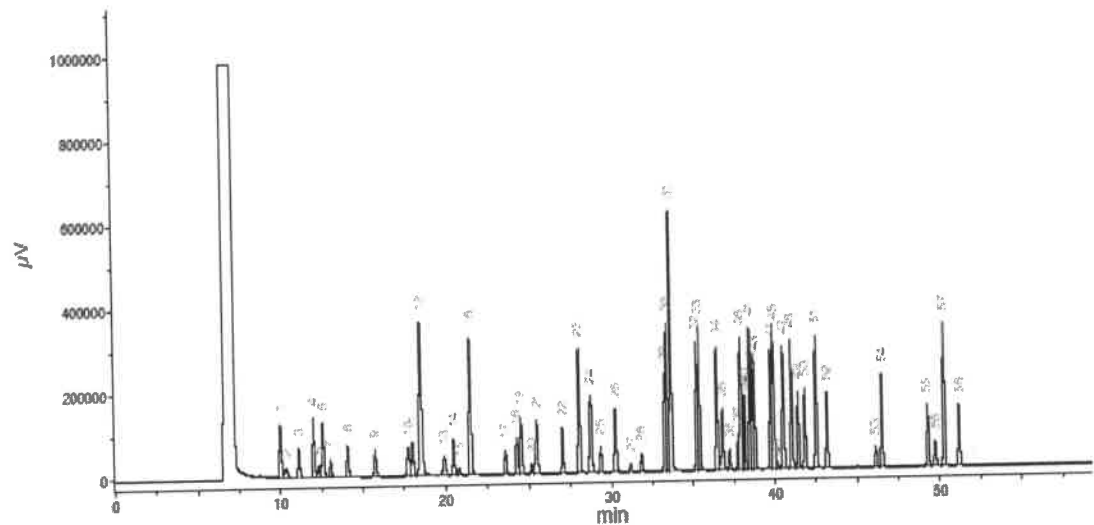


Run 16, "P95317 L021624 (2000µg/mL in MeOH)"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,2-trifluoroethane	10.53
3	1,1-Dichloroethane	11.10
4	Acetonitrile	12.60
5	Iodomethane	12.91
6	Allyl chloride	12.96
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Hexamethylcyclotrisiloxane/Methyl acrylate/Chloroform	18.49
13	Isobutanol/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethane	23.88
18	1,2-Dichloropropane	24.62
19	Methyl methacrylate	25.13
20	Bromodichloromethane	25.46
21	Dibromomethane/2,2-Dichloropropane	27.07
22	cis-1,2-Dichloroethene	28.03
23	Toluene	28.73
24	Ethyl methacrylate/Trans-1,2-Dichloroethane	29.34
25	1,1,2-Trichloroethane	30.94
26	Tetrachloroethane/1,2-Dichloropropane	31.16
27	Dibromochloromethane	32.84
28	1,2-Dibromomethane	33.26
29	Chlorobenzene	33.40
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.85
31	m-Xylene/p-Xylene	35.33
32	o-Xylene	35.70
33	Styrene	35.76
34	Isopropylbenzene/Bromofarm	36.48
35	cis-1,4-Dichloro-3-butene	36.80
36	1,1,2-Trichloropropane	37.23
37	n-Propylbenzene	37.72
38	trans-1,4-Dichloro-3-butene	37.92
39	Bromobenzene	38.05
40	1,3,5-Trimethylbenzene	38.14
41	2-Chlorobenzene	38.50
42	4-Chlorobenzene	38.63
43	tert-Butylbenzene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Perchloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropylbenzene	41.02
49	1,3-Trichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.40
55	1,2,4-Trichlorobenzene	49.28
56	Hexachlorocyclopentadiene	49.72
57	Naphthalene	50.56
58	1,2,3-Trichlorobenzene	51.16

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	1-352-323-3500
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225
H370
P271
P302,332Highly Flammable Liquid and Vapor
Cause damage to organs
Use in ventilated area
If on skin, wash with soap and waterH301, 311, 331
H351
P280
P305,351,338Toxic if swallowed, skin contact, inhaled
Suspected of causing cancer
Use gloves, eye protection/face shield
If in eyes, remove contacts, rinse with water

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))
Methanol METHYL ALCOHOL

CAS#: 67-56-1

% (optional)
> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice

If inhaled

In case of skin contact

In case of eye contact

If swallowed

Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Wash with soap and water. Consult a physician.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Protective equipment for fire

Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Clean up

Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Storage Conditions

Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm

Skin notation TWA 200 ppm

Potential for skin absorption, ingestion and inhalation.

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.

Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Ree 03117/24

CERTIFIED WEIGHT REPORT

Part Number: 95317

Lot Number: 021624

Description: Universal VOA Megamix

69 components

Expiration Date: 021627

Recommended Storage: Freezer (0 °C)

Nominal Concentration (µg/mL): 2000

NIST Test ID#: BUTB

Solvent(s): Lot#
Methanol EG359-USQ12

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

5E-05 Balance Uncertainty

Flask Uncertainty

Formulated By:	Prashant Chauhan	021624
Reviewed By:	Pedro L. Renteria	021624
DATE		

Compound	(KME)	Lot	DR	Initial	Initial	Nominal	Purity	Purity	Uncertainty	Target	Actual	Actual	Expanded	SDS Information		
														(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	or-rat 2400mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102366	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	or-rat 700mg/kg
3. Carbon disulfide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	or-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21056	0.21069	2001.1	8.5	1478-11-6	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0486)	MKBP9041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20746	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CAS000C	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	N/A
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm (28mg/m3/8H) (skin)	or-rat 14800mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20120	2001.4	8.1	78-83-1	50 ppm (150mg/m3/8H)	or-rat 75mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	128-98-7	1 ppm (3mg/m3/8H) (skin)	or-rat 3460mg/kg
11. Methyl acrylate	(0755)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm (35mg/m3/8H) (skin)	or-rat 120mg/kg
12. Methyl methacrylate	(0404)	MKGW6137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20041	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	or-rat 277mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20220	2001.3	8.2	98-95-3	1 ppm (5mg/m3/8H) (skin)	or-rat 787mg/kg
14. 2-Nitropropane	(0461)	HG02JX	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	78-46-9	10 ppm (35mg/m3/8H)	or-rat 720mg/kg
15. Pentachloroethane	(0460)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	78-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18990	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	78-13-1	1000 ppm (7600mg/m3/8H)	or-rat 43mg/kg
17. Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	or-rat 915mg/kg
18. Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	or-rat 848mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	or-rat 848mg/kg
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	or-rat 1235mg/kg
21. Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	or-rat 820mg/kg
22. 1,1-Dichloroethane	35171	101623	0.05	5.00	40003.2	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	or-rat 200mg/kg
23. Bromoform	95321	020724	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	or-rat 933mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	or-rat 2350mg/kg
25. Chloroform	95321	020724	0.10	10.00	20004.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	60 ppm (240mg/m3) (CL)	or-rat 908mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	or-rat 106mg/kg
27. 1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	or-rat 725mg/kg
29. Trichloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.8	20.8	127-18-4	25 ppm (170mg/m3/8H) (final)	or-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1800mg/m3/8H)	or-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40018.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	86-12-8	0.001 ppm	or-rat 170mg/kg
32. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	or-rat 108mg/kg
33. 1,2-Dichloroethane	35161	112322	0.05	5.00	40005.1	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	or-rat 670mg/kg
34. 1,2-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	or-rat 1847mg/kg
35. 1,3-Dichloropropane	35161	112322	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	or-rat 3600mg/kg
36. 1,1,3-Dichloropropane	35161	112322	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	2000.1	28.7	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropane	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropane	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	or-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	830-20-6	N/A	or-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H) (skin)	or-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H) (skin)	or-rat 936mg/kg
43. Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	or-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	or-rat 149.8mg/kg
45. Benzene	35162	050823	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	or-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	or-rat 2699mg/kg
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	or-rat >2000mg/kg
48. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	99-87-6	N/A	or-rat 4750mg/kg
49. p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
50. Naphthalene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	or-rat 5000mg/kg
51. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-98-3	200 ppm	or-rat 5000mg/kg
52. Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-81-6	N/A	or-rat 1390mg/kg
53. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 756mg/kg
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	or-rat 5g/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-87-6	N/A	or-rat 5000mg/kg
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	109-38-3	100 ppm (435mg/m3/8H)	or-rat 5g/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	96-06-6	N/A	N/A
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	135-98-6	N/A	or-rat 2240mg/kg
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	or-rat 2290mg/kg
60. Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	or-rat 3900mg/kg
61. 2-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	or-rat 2100mg/kg
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	or-rat 500mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	or-rat 1062mg/kg
64. 1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	108-46-7	75 ppm (450mg/m3/8H)	or-r

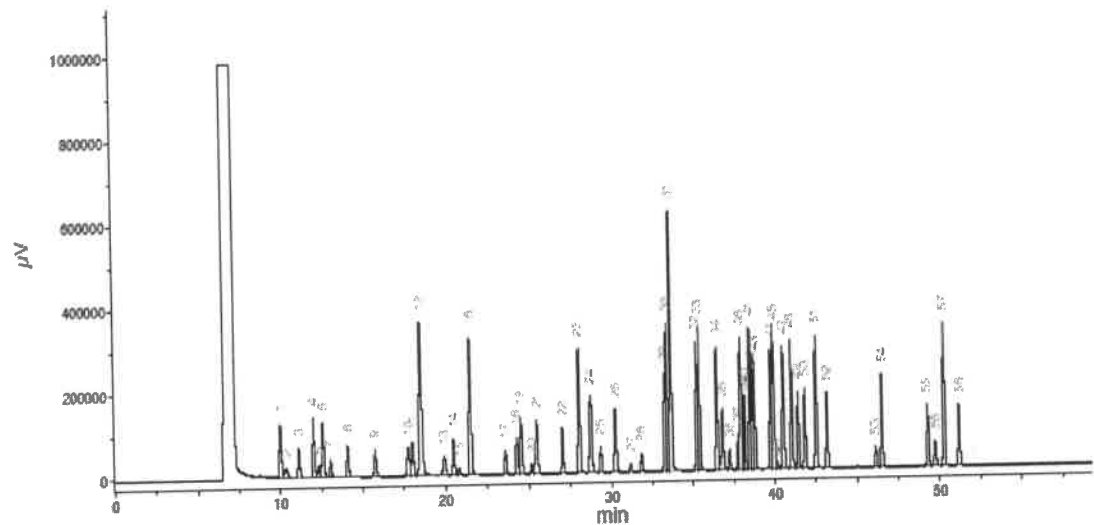


Run 16, "P95317 L021624 (2000µg/mL in MeOH)"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,2-trifluoroethane	10.53
3	1,1,1-Trichloroethane	11.10
4	Acetonitrile	12.60
5	Isodimethane	12.91
6	Allyl chloride	13.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethane	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethane	18.00
12	Heptafluoropropane/Methyl acrylate/Chloroform	18.49
13	Isobutanol/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethane	23.88
18	1,2-Dichloropropane	24.52
19	Methyl methacrylate	25.13
20	Bromochloropropane	25.46
21	Dibromomethane/2,2-Dichloropropane	26.07
22	cis-1,2-Dichloroethane	27.07
23	Toluene	28.03
24	Ethyl methacrylate/trans-1,2-Dichloroethane	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethane/1,2-Dichloropropane	30.94
27	Dibromochloromethane	31.16
28	1,2-Dibromomethane	32.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.53
33	Styrene	35.70
34	Isopropylbenzene/Bromofarm	35.48
35	cis-1,4-Dichloro-3-butene	36.80
36	1,1,2-Trichloropropane	37.23
37	n-Propylbenzene	37.77
38	trans-1,4-Dichloro-3-butene	37.92
39	Bromobenzene	38.05
40	1,3,5-Trimethylbenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	Chlorobenzene	38.63
43	4-Chlorobenzene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropylbenzene	41.02
49	1,3-Trichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.40
55	1,2,4-Trichlorobenzene	49.28
56	Hexachlorocyclopentadiene	49.72
57	Naphthalene	50.56
58	1,2,3-Trichlorobenzene	51.16

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	1-352-323-3500
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225 H370 P271 P302,332	Highly Flammable Liquid and Vapor Cause damage to organs Use in ventilated area If on skin, wash with soap and water	H301, 311, 331 H351 P280 P305,351,338	Toxic if swallowed, skin contact, inhaled Suspected of causing cancer Use gloves, eye protection/face shield If in eyes, remove contacts, rinse with water
----------------------------------	---	--	---



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		
Methanol	METHYL ALCOHOL	CAS#: 67-56-1
		% (optional) > 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Storage Conditions	Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1 TWA 200 ppm
Skin notation	TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.	
Personal protective equipment	Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.	

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM



Dec 09/17/24

2 vial

CERTIFIED WEIGHT REPORT

Part Number:

91980

Lot Number:

091424

Description:

Acrolein

Solvent(s):

Water

Lot#

072324Q

Expiration Date:

101424

Recommended Storage:

Refrigerate (4 °C)

5000

Nominal Concentration (µg/mL):

6UTB

NIST Test ID#:

5E-05

Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 10.0

0.001

Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (±) (µg/mL)	(Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
----------	-----	------------	----------------------	------------	-------------	------------------	------------------	---------------------	----------------------------------	--	------	----------------	------

1. Acrolein	5	103755V10F	5000	97	0.5	0.05186	0.05175	5008.9	52.5	107-02-8	0.1 ppm	ori-rat 46mg/kg
-------------	---	------------	------	----	-----	---------	---------	--------	------	----------	---------	-----------------

Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode). Columns: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 0min.), Temp. 2 = 200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas, NOTE: Due to the instability of acrolein in solution, all solutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D

Scan 232 (8.927 min): [BSB2]79005.D

Abundance

27

250000

8.93

200000

50000

56

150000

40000

30000

20000

50000

10000

37

Time-->

10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00

m/z-->

20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

44 65 75 85 119 158 169

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (±) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Certified Reference Material CRM


 ANAB ISO 17034 Accredited
 AR-1539 Certificate Number
<https://absolutestandards.com>

 Rec 09/17/24
 2 v 1 of

CERTIFIED WEIGHT REPORT

 Part Number: 91980
 Lot Number: 091424
 Description: Acrolein

 Solvent(s): Water
 Lot# 072324Q

 Expiration Date: 101424
 Recommended Storage: Refrigerate (4 °C)
 Nominal Concentration (µg/mL): 5000
 NIST Test ID#: 6UTB

 Weight(s) shown below were combined and diluted to (mL): 10.0
 5E-05 Balance Uncertainty
 0.001 Flask Uncertainty

Formulated By:	Justin Dippold	DATE	091424
Reviewed By:	Pedro L. Rentas	DATE	091424

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information		
										(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	ori-rat 46mg/kg

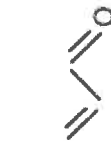
Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode). Columns: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 0min.), Temp. 2 = 200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas, NOTE: Due to the instability of acrolein in solution, all solutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D

Scan 232 (8.927 min): [BSB2]79005.D

 Abundance
 27

250000



200000

56

150000

30000

20000

50000

10000

Time-->

 10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00
 m/z--> 20 30 40 50 60 70 80 85 119 158 169

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Certified Reference Material CRM



See 1216124
20 vial

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL): 50.0

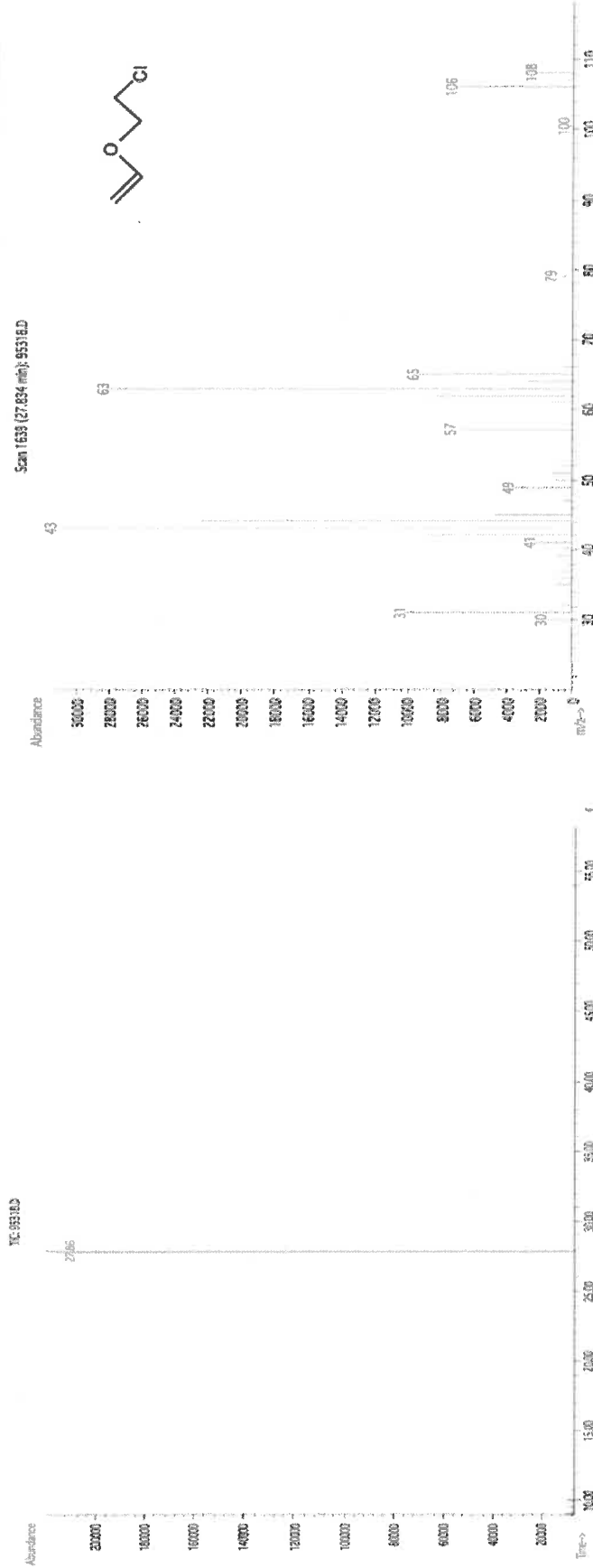
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By:	Prashant Chauhan	120524	DATE
Reviewed By:	Pedro L. Rentas	120524	DATE

Expanded
Uncertainty (Solvent Safety Info. On Attached pg.)
Uncertainty (±) (µg/mL) CAS# OSHA PEL (TWA) LDSO

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	or-rat 250mg/kg
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	N/A

Method: GC/MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., **Injector B Temp:** = 200°C, **Detector B Temp.** = 220°C. **Analyst:** Candice Warren.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (±) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr.	Emergency Telephone International	1-352-323-3500
	Hamden CT, 06514	Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	Highly Flammable Liquid and Vapor	H301, 311, 331	Toxic if swallowed, skin contact, inhaled
H370	Cause damage to organs	H351	Suspected of causing cancer
P271	Use in ventilated area	P280	Use gloves, eye protection/face shield
P302,332	If on skin, wash with soap and water	P305,351,338	If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Methanol	METHYL ALCOHOL	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1	TWA 200 ppm
Skin notation		TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.		
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.		

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM



See 1216124
20 vial

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

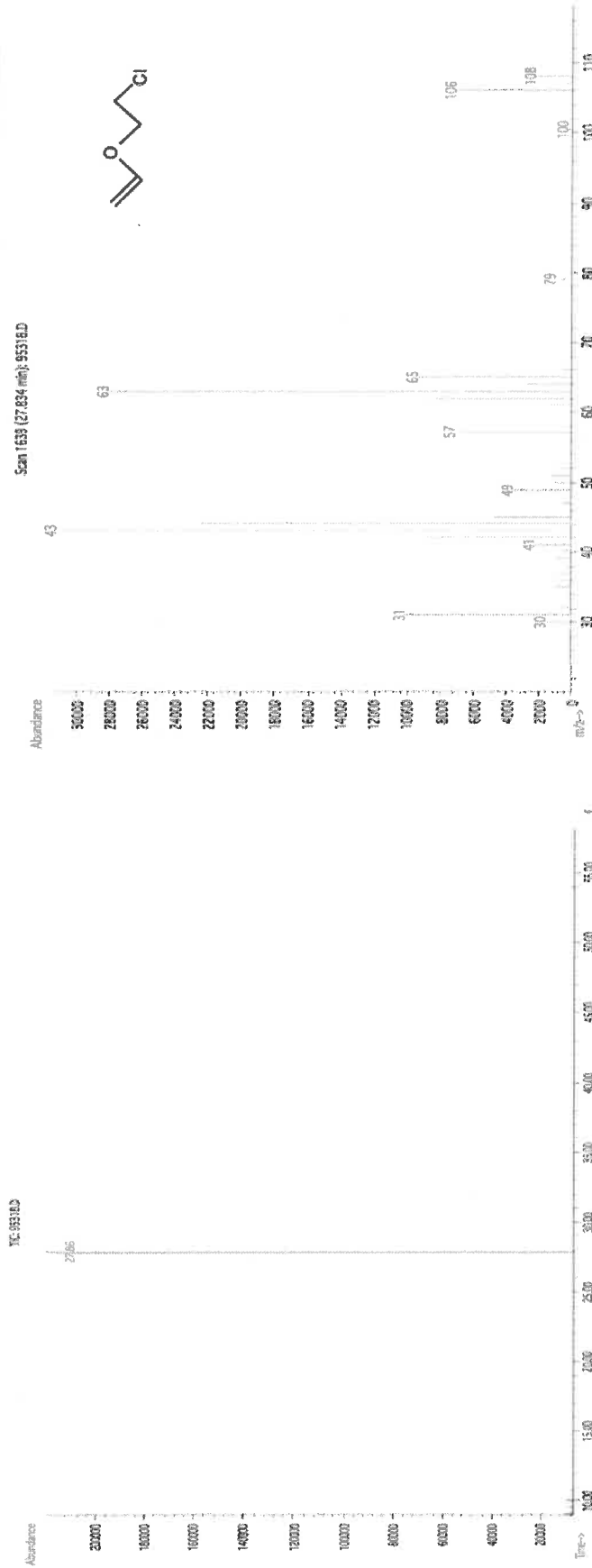
Weight(s) shown below were combined and diluted to (mL): 50.0

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By:	Prashant Chauhan	120524	DATE
Reviewed By:	Pedro L. Rentas	120524	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8 N/A or-rat 250mg/kg

Method: GC/MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., **Injector B Temp:** = 200°C, **Detector B Temp.** = 220°C. **Analyst:** Candice Warren.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr.	Emergency Telephone International	1-352-323-3500
	Hamden CT, 06514	Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	Highly Flammable Liquid and Vapor	H301, 311, 331	Toxic if swallowed, skin contact, inhaled
H370	Cause damage to organs	H351	Suspected of causing cancer
P271	Use in ventilated area	P280	Use gloves, eye protection/face shield
P302,332	If on skin, wash with soap and water	P305,351,338	If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Methanol	METHYL ALCOHOL	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1	TWA 200 ppm
Skin notation		TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.		
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.		

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM



Dec 12/16/24
20 vial

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

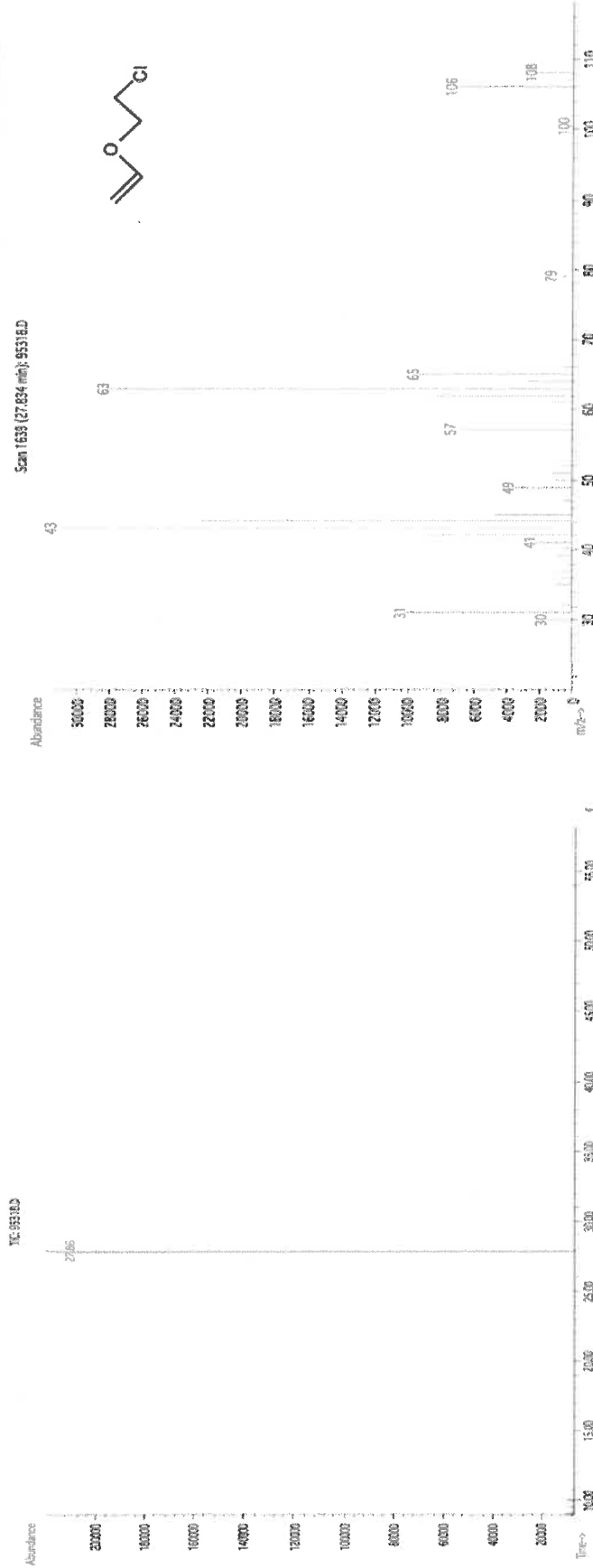
Formulated By: Prashant Chauhan 120524
Reviewed By: Pedro L. Rentas 120524

Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8 N/A or-rat 250mg/kg

Method: GC/MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., **Injector B Temp:** = 200°C, **Detector B Temp.** = 220°C. **Analyst:** Candice Warren.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr.	Emergency Telephone International	1-352-323-3500
	Hamden CT, 06514	Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	Highly Flammable Liquid and Vapor	H301, 311, 331	Toxic if swallowed, skin contact, inhaled
H370	Cause damage to organs	H351	Suspected of causing cancer
P271	Use in ventilated area	P280	Use gloves, eye protection/face shield
P302,332	If on skin, wash with soap and water	P305,351,338	If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Methanol	METHYL ALCOHOL	> 97
	CAS#: 67-56-1	

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1	TWA 200 ppm
Skin notation		TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.		
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.		

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM



Rec 1216/24
20 vial

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL):

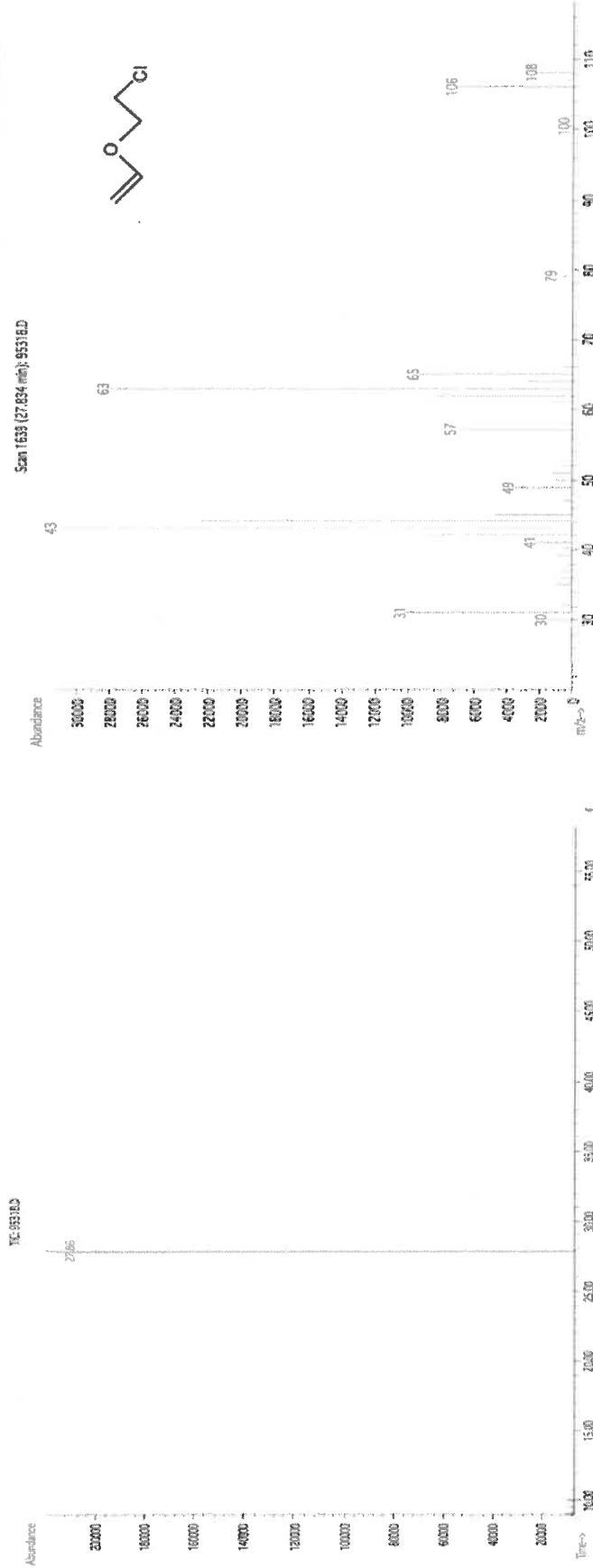
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By:	Prashant Chauhan	120524	DATE
Reviewed By:	Pedro L. Rentas	120524	DATE

Expanded
Uncertainty (Solvent Safety Info. On Attached pg.)
Conc(µg/mL) (+/-) (µg/mL) CAS# OSHA PEL (TWA) LD50

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	40.5	110-75-8	N/A	or-rat 250mg/kg
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9				

Method: GC/MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., **Injector B Temp:** = 200°C, **Detector B Temp.** = 220°C. **Analyst:** Candice Warren.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr.	Emergency Telephone International	1-352-323-3500
	Hamden CT, 06514	Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	Highly Flammable Liquid and Vapor	H301, 311, 331	Toxic if swallowed, skin contact, inhaled
H370	Cause damage to organs	H351	Suspected of causing cancer
P271	Use in ventilated area	P280	Use gloves, eye protection/face shield
P302,332	If on skin, wash with soap and water	P305,351,338	If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Methanol	METHYL ALCOHOL	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1	TWA 200 ppm
Skin notation		TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.		
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.		

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0191805

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	2,483.9 µg/mL	+/- 139.5488

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

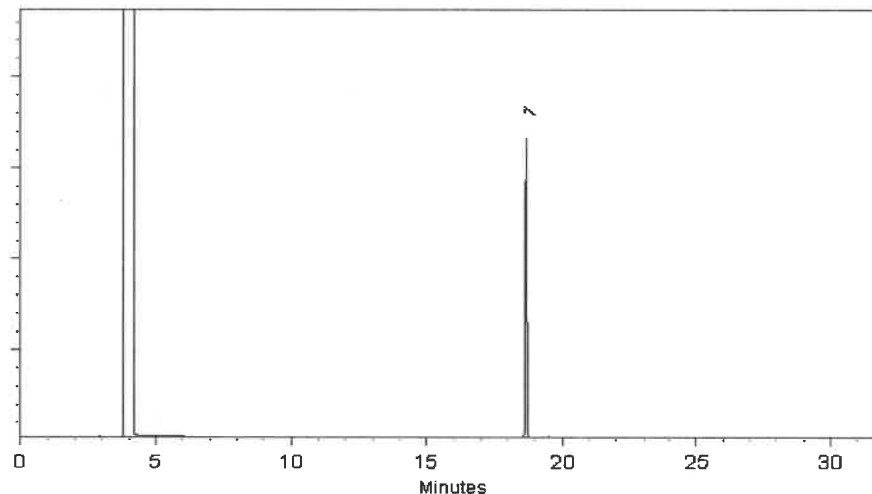
FID

Split Vent:

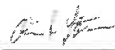
40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Alicia Leathers - Operation Technician I

Date Mixed: 17-Nov-2022

Balance Serial # B251644995


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Nov-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0200785

Description : VOA Calibration Mix #1
VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

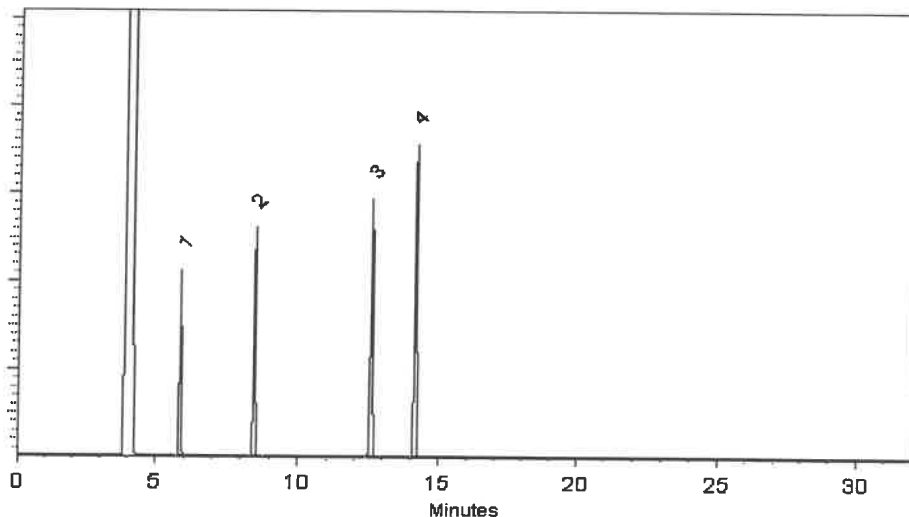
FID

Split Vent:

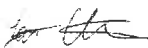
40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271


Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0200785

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

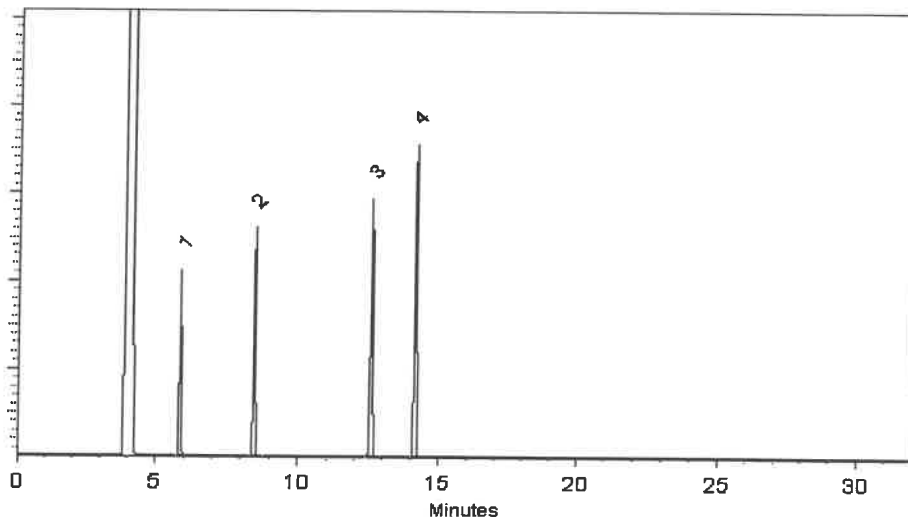
FID

Split Vent:

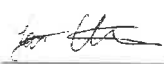
40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271


Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0200785

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

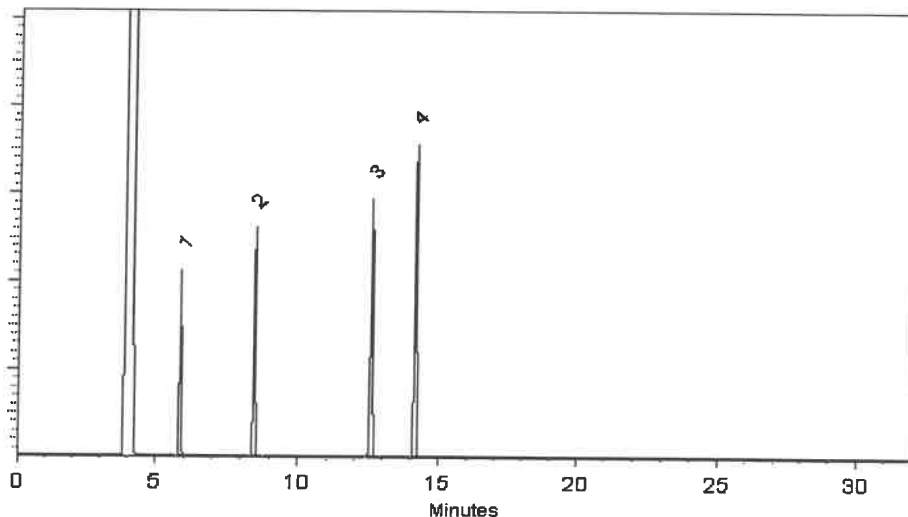
FID

Split Vent:

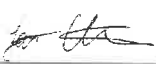
40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271


Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
gravimetric



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.:	555581	Lot No.:	A0210184
Description:	Custom 8260 Internal Standard Mix		
	Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul		
Container Size:	2 mL	Pkg Amt:	> 1 mL
Expiration Date:	April 30, 2027	Storage:	10°C or colder
		Ship:	Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	25,212.0 µg/mL	+/- 1,427.8857
2	1,4-Difluorobenzene	540-36-3	MKCS8657	99%	25,220.0 µg/mL	+/- 1,428.3388
3	Chlorobenzene-d5	3114-55-4	PR-31132	99%	25,116.0 µg/mL	+/- 1,422.4487
4	Pentafluorobenzene	363-72-4	MKCR9383	99%	25,180.0 µg/mL	+/- 1,426.0734

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 11-Apr-2024

Balance: 1127510105



Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

10 vial.
Dec: 12/09/24
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus
V14667
V14676



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0214960
Description : Bromochloromethane Standard
Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2029 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

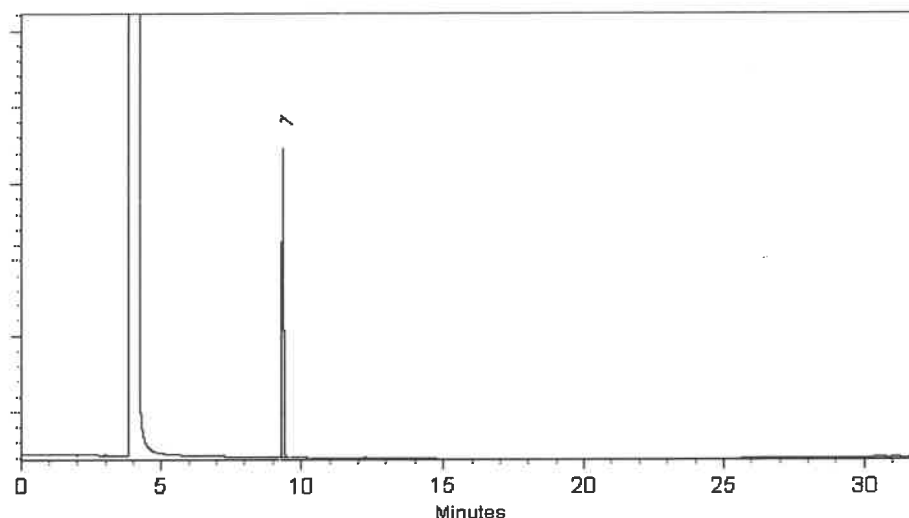
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024

Balance Serial # 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24
30 ml
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus
V14727 to
V14756



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0216826
Description : 502.2 Calibration Mix #1
502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2031 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:

helium-constant flow 2.0 mL/min.

Temp. Program:

40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

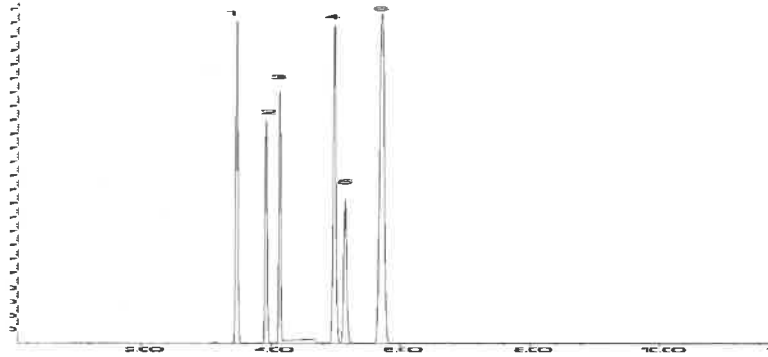
MSD

Split Vent:

Split ratio 10:1

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckal - Mix Technician

Date Mixed: 23-Sep-2024

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24
30 ml
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus
V14727 to
V14756



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0216826
Description : 502.2 Calibration Mix #1
502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2031 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:

helium-constant flow 2.0 mL/min.

Temp. Program:

40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

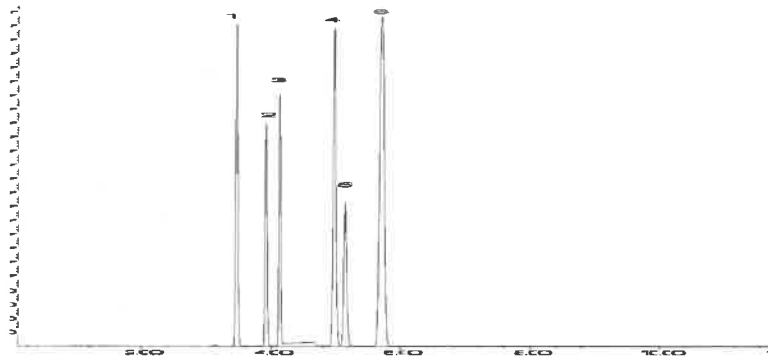
MSD

Split Vent:

Split ratio 10:1

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckal - Mix Technician

Date Mixed: 23-Sep-2024

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

✓ 14842 to 14846



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0217535
Description : tert-Butanol Standard
tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : October 31, 2027 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	tert-Butanol (TBA)	75-65-0	SHBQ8002-1	99%	50,007.5 µg/mL	+/- 717.6137

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

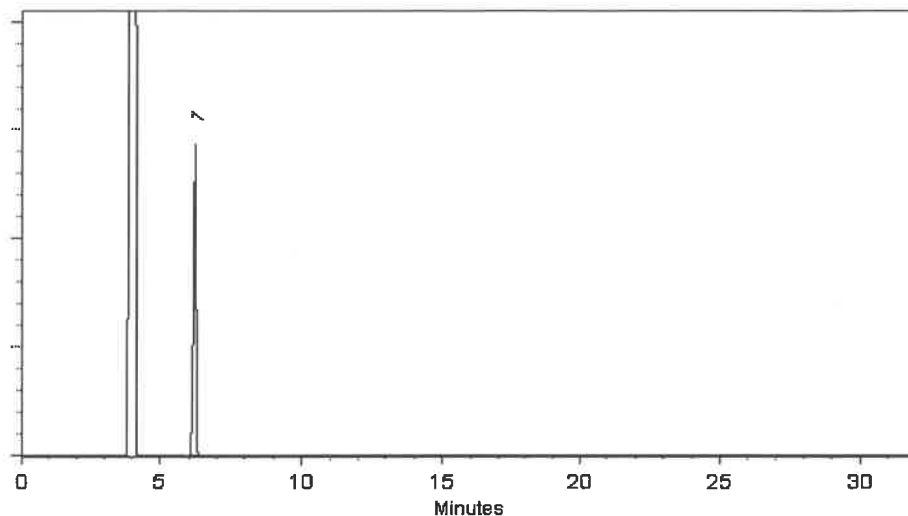
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

A. O. E.
Aaron Enyart - Operations Tech I

Date Mixed: 07-Oct-2024

Balance Serial # B251644995

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 09-Oct-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

2014 Dec 01/08/21
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0220471
Description : Custom Vinyl Acetate Standard
Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : June 30, 2026 **Storage:** -20°C or colder
Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

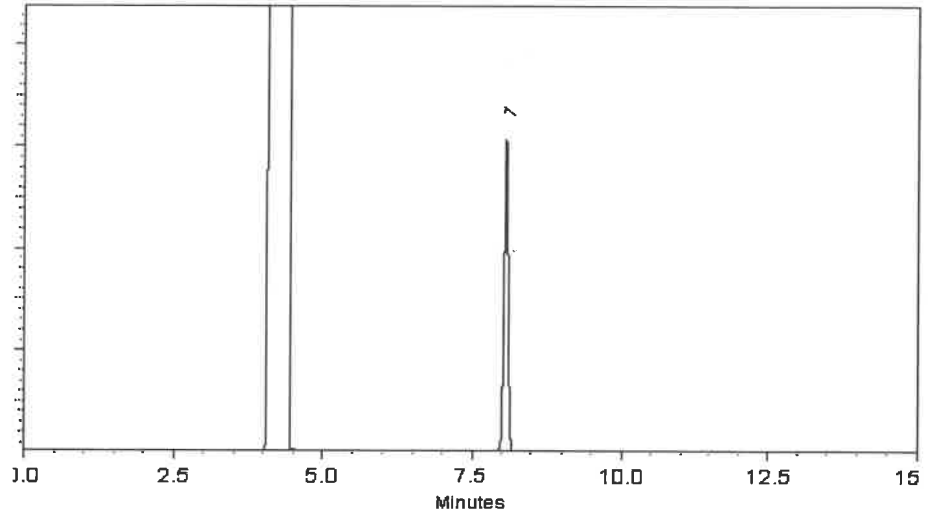
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024

Balance Serial # 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED
By Jennifer Patten at 7:12 am, Jan 05, 2025

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

2014 Dec 01/08/21
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0220471
Description : Custom Vinyl Acetate Standard
Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : June 30, 2026 **Storage:** -20°C or colder
Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

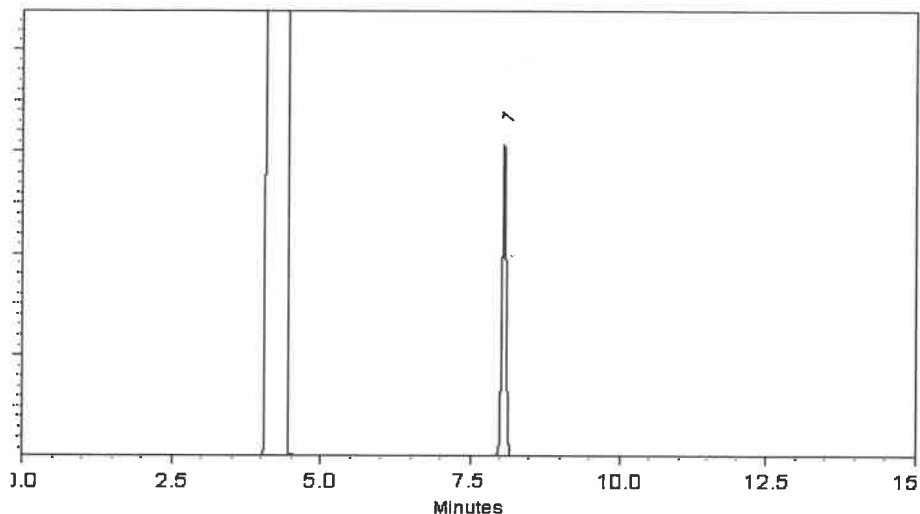
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024

Balance Serial # 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED
By Jennifer Pabon at 7:12 am, Jan 05, 2025

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

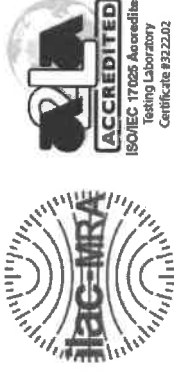
www.restek.com

10 vial
CERTIFIED REFERENCE MATERIAL
See 03/31/25



Certificate of Analysis

gravimetric



V14904 to V14913

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.
This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. :	<u>555582</u>	Lot No.:	<u>A0223904</u>
Description :	<u>Custom 8260A/B Surrogate Mix</u>		
	<u>Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul</u>		
Container Size :	<u>2 mL</u>	Pkg Amt:	<u>> 1 mL</u>
Expiration Date :	<u>March 31, 2028</u>	Storage:	<u>10°C or colder</u>
		Ship:	<u>Ambient</u>

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty* (95% C.L.; K=2)
1	1,2-Dichloroethane-d4	17060-07-0	PR-33313	99%	25,108.0 µg/mL	+/- 1,421.9957
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	0000268853	99%	25,108.0 µg/mL	+/- 1,421.9957
3	Dibromofluoromethane	1868-53-7	VENKAT02	99%	25,232.0 µg/mL	+/- 1,429.0184
4	Toluene-d8	2037-26-5	PR-34141	99%	25,156.0 µg/mL	+/- 1,424.7141

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Brittany Federlino

Brittany Federlino - Operations Tech I

Date Mixed: 27-Mar-2025 Balance: B251644995



Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Rec 05/09/25
Avantor[™]



V14921 to
V14938

Material No.: 9077-02
Batch No.: 24G0262002
Manufactured Date: 2024-05-14
Expiration Date: 2027-05-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Titration Acid (μeq/g)	≤ 0.3	0.3
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 82608 CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Mark
Jamie Croak
Director Quality Operations, Bioscience Production

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Rec 05/09/25
Avantor™



*V14921 to
V14938*

Material No.: 9077-02
Batch No.: 24G0262002
Manufactured Date: 2024-05-14
Expiration Date: 2027-05-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Titration Acid (µeq/g)	≤ 0.3	0.3
Titration Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 82608 CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Mark
Jamie Croak
Director Quality Operations, Bioscience Production

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Rec 05/09/25
Wavantor™



V14921 to
V14938

Material No.: 9077-02
Batch No.: 24G0262002
Manufactured Date: 2024-05-14
Expiration Date: 2027-05-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Titration Acid (µeq/g)	≤ 0.3	0.3
Titration Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 82608 CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Mark
Jamie Croak
Director Quality Operations, Bioscience Production



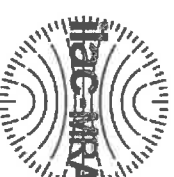
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309
www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

✓ 149516 ✓ 14970



379 of 388

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 Lot No.: A0222076

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : August 31, 2026 Storage: -20°C or colder

Handling: This product is photosensitive. Ship: On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBR1889	99%	2,004.0 µg/mL	+/- 69.2674
2	Vinyl acetate	108-05-4	RD240423RSR	99%	2,010.0 µg/mL	+/- 69.4748
3	Ethyl acetate	141-78-6	SHBS3323	99%	2,019.3 µg/mL	+/- 69.7974
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,008.0 µg/mL	+/- 69.4057
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBR2024	99%	2,008.0 µg/mL	+/- 69.4057
7	Amyl acetate	628-63-7	BCBT7442	99%	2,006.7 µg/mL	+/- 69.3596

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this



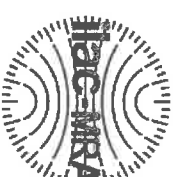
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309
www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

✓ 14951 to ✓ 14970



380 of 388

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 Lot No.: A0222076

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : August 31, 2026 Storage: -20°C or colder

Handling: This product is photosensitive. Ship: On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBR1889	99%	2,004.0 µg/mL	+/- 69.2674
2	Vinyl acetate	108-05-4	RD240423RSR	99%	2,010.0 µg/mL	+/- 69.4748
3	Ethyl acetate	141-78-6	SHBS3323	99%	2,019.3 µg/mL	+/- 69.7974
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,008.0 µg/mL	+/- 69.4057
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBR2024	99%	2,008.0 µg/mL	+/- 69.4057
7	Amyl acetate	628-63-7	BCBT7442	99%	2,006.7 µg/mL	+/- 69.3596

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this



Certified Reference Material CRM



Rec 10/16/25 5:10p

CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:Solvent(s):
WaterLot#
041725QExpiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test ID#:111625
Refrigerate (2°C to 8°C)
5000
6UTB

VISOH-VISO75

Weight(s) shown below were combined and diluted to (mL):
10.05E-05 Balance Uncertainty
0.001 Flask Uncertainty

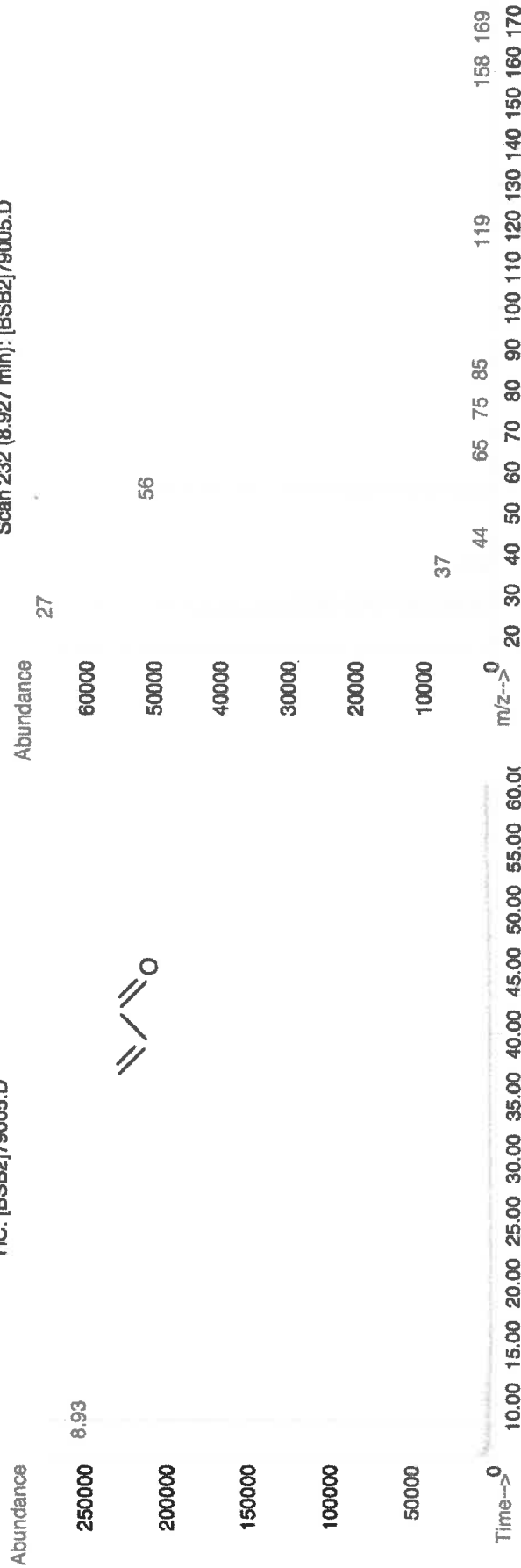
Formulated By:	Prashant Chauhan	101625	DATE
Reviewed By:	Pedro L. Renteria	101625	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
										CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05180	5013.7	52.6	107-02-8	0.1 ppm	ori-rat 48mg/kg

Method: GC6MSD-1.1. Detector: Mass Selective Detector (Scan mode). Columns: Vool (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2 = 200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Renteria. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D

Scan 232 (8.927 min): [BSB2]79005.D



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated by an ISO 17025 certified organization with weights traceable through NIST to the SI Kilogram (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).
- Rev 1A, 2/25/2025



Certified Reference Material CRM



Rec 10/16/25 5:10p

CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:

91980
101625
Acrolein

Solvent(s):
Water

Lot#
041725Q

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test ID#:

111625
Refrigerate (2°C to 8°C)
5000
6UTB

115071-115075

Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

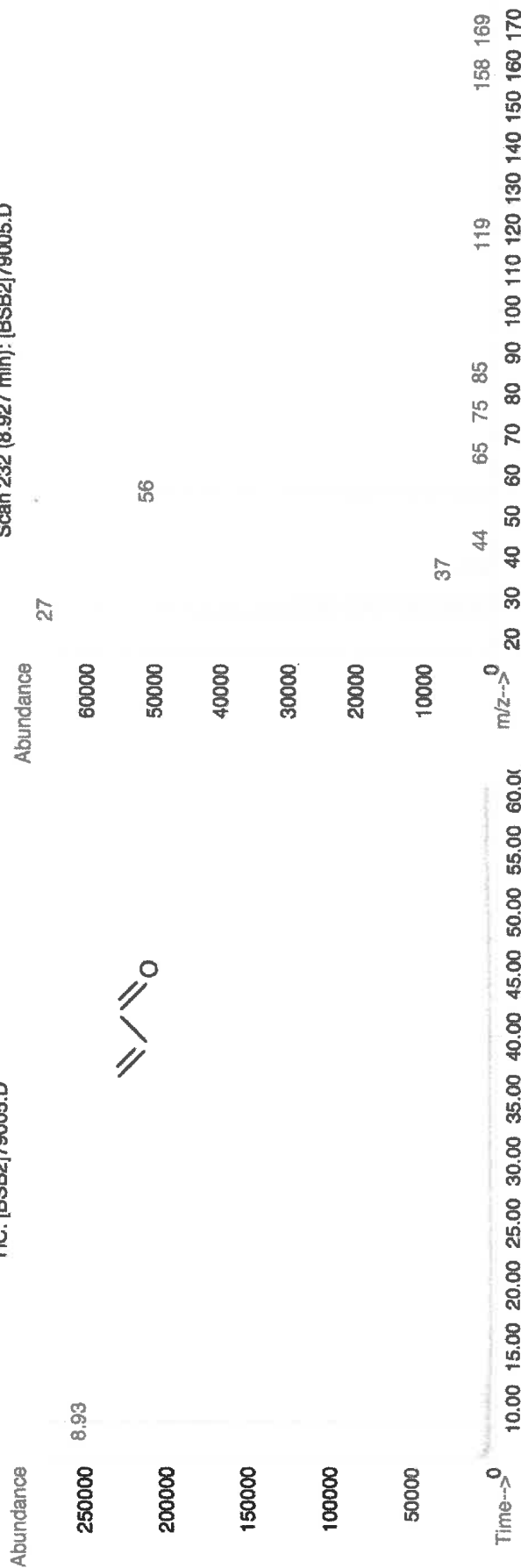
10.0

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (±) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
----------	-----	------------	----------------------	------------	-------------	------------------	------------------	---------------------	----------------------------------	------	----------------	------

1. Acrolein 5 103755V10F 5000 97 0.5 0.05166 0.05180 5013.7 52.6 107-02-8 0.1 ppm orl-rat 48mg/kg

Method: GC6MSD-1.1. Detector: Mass Selective Detector (Scan mode). Columns: Vool (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2 = 200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Renteria. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D



• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated by an ISO 17025 certified organization with weights traceable through NIST to the SI Kilogram (see above).
• Standards are certified (±) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).
Rev 1A, 2/25/2025



Certified Reference Material CRM



Rec 10/16/25 5:10p

CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:

91980
101625
Acrolein

Solvent(s):
Water

Lot#
041725Q

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test ID#:

111625
Refrigerate (2°C to 8°C)
5000
6UTB

115071-115075

Weight(s) shown below were combined and diluted to (mL):

10.0

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By:	Prashant Chauhan	101625	DATE
Reviewed By:	Pedro L. Renteria	101625	DATE

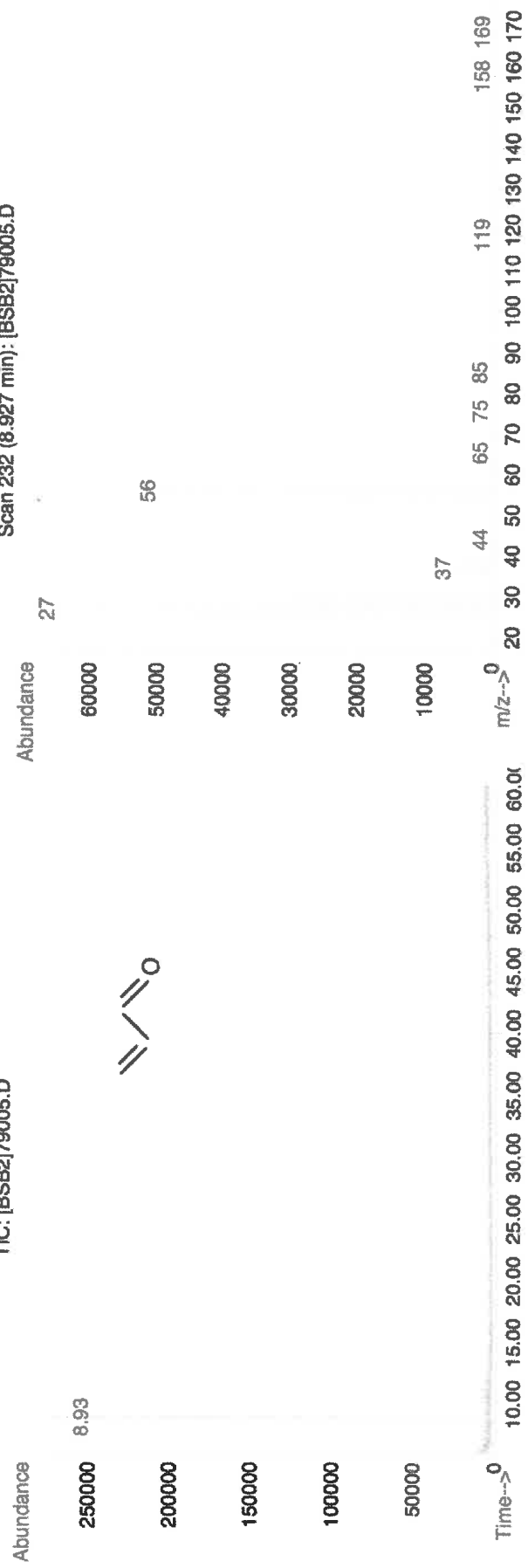
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
----------	-----	------------	----------------------	------------	-------------	------------------	------------------	---------------------	------------------------------------	------	----------------	------

1. Acrolein 5 103755V10F 5000 97 0.5 0.05166 0.05180 5013.7 52.6 107-02-8 0.1 ppm orl-rat 48mg/kg

Method: GC6MSD-1.1. Detector: Mass Selective Detector (Scan mode). Columns: Vool (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2 = 200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Renteria. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D

Scan 232 (8.927 min): [BSB2]79005.D



• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated by an ISO 17025 certified organization with weights traceable through NIST to the SI Kilogram (see above).
• Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).
Rev 1A, 2/25/2025

Preservation Log

BalanceID: VOA-SC-2

Review By: Amit

Supervise By: MMDadoda

Seq	LabID	Vial A Weight(g)= Total Wt-Tare Wt	Vial A Time	Vial B Weight(g)= Total Wt-Tare Wt	Vial B Time	Vial C Weight(g) Preserve with MeOH	Vial C Time	Methanol ID	Preservation Date	Comments
1	Q3363-01	36.59-31.04=5.55	11:01	36.79-31.41=5.38	11:02	32.85-28.03=4.82	11:03	V14921	10/16/2025	TERRACORE SAMPLE 8260
2	Q3363-02	35.40-31.25=4.15	11:04	43.14-33.46=9.68	11:04	33.66-28.34=5.32	11:05	V14921	10/16/2025	
3	Q3363-03	36.76-33.16=3.6	11:06	37.51-33.18=4.33	11:07	31.60-28.32=3.28	11:08	V14921	10/16/2025	
4	Q3363-04	35.85-31.38=4.47	11:09	34.87-31.02=3.85	11:10	32.35-28.08=4.27	11:11	V14921	10/16/2025	
5	Q3363-05	35.65-30.88=4.77	11:12	38.47-33.15=5.32	11:14	33.49-28.29=5.2	11:15	V14921	10/16/2025	

Instructions : For medium Level analysis, 5ml MeOH added for CLP(SOM/SFAM) method and 10ml for regular 8260.

If the samples are not to be analyzed within 48hrs of sampling, preserve samples immediately, Vials A and B are stored in the VOA-FRZ-2.

Vial C - MeOH preserved vials are kept in VOA-REF #6.

QA Contorl # A3041177



SHIPPING DOCUMENTS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18



TECHNICAL GROUP

28.5... inside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO. Q3363
QUOTE NO. 2045136 Q3364
COC Number

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: AECOM

ADDRESS: 605 Third Avenue

CITY New York STATE: NY ZIP: 10158

ATTENTION: Robert Forschner

PHONE: 212-377-8721 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Port Richmond 132

PROJECT NO.: 60693795 LOCATION: Staten Island

PROJECT MANAGER: Rob Forschner

e-mail: Robert.Forschner@aecocom.com

PHONE: 212-377-8721 FAX:

CLIENT BILLING INFORMATION

BILL TO: AECOM PO#:

ADDRESS: 605 Third Avenue

CITY New York STATE: NY ZIP: 10158

ATTENTION: Rob Forschner PHONE: 212-377-8721

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*

HARDCOPY (DATA PACKAGE): _____ DAYS*

EDD: _____ DAYS*

*TO BE APPROVED BY CHEMTECH

(STANDARD) HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☒ NYS ASP B
+ Raw Data ☐ Other _____

☐ EDD FORMAT _____

PRESERVATIVES

COMMENTS

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

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	ANALYSIS									COMMENTS
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	PA132-S01-085611-20251015	Soil		X	10/15	1157	11	X	X	X	X	X	X	X	X	X	
2.	PA132-S01-039085-20251015	Soil		X	10/15	1210	11	X	X	X	X	X	X	X	X	X	
3.	PA132-S03-028010-20251015	Soil		X	10/15	1315	11	X	X	X	X	X	X	X	X	X	
4.	PA132-S03-010013-20251015	Soil		X	10/15	1330	11	X	X	X	X	X	X	X	X	X	
5.	COMF01-20251015	Soil	X		10/15	1353	11	X	X	X	X	X	X	X	X	X	
6.	TB-01	Water			10/15		1	X	X	X	X	X	X	X	X	X	Temp Blank
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER: _____ DATE/TIME: 1700

RELINQUISHED BY SAMPLER: Jim Alderson DATE/TIME: 101515

RELINQUISHED BY SAMPLER: _____ DATE/TIME: 1750

RELINQUISHED BY SAMPLER: _____ DATE/TIME: 10-15-25

RECEIVED BY: _____ DATE/TIME: 1700

RECEIVED BY: _____ DATE/TIME: 10-15-25

RECEIVED BY: _____ DATE/TIME: 1750

RECEIVED BY: _____ DATE/TIME: 10-15-25

Comments: _____

Comments: _____

Comments: _____

Comments: _____

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP _____ °C

Shipment Complete ☐ YES ☐ NO

Shipment Complete ☐ YES ☐ NO

Shipment Complete ☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3363	AECO02	Order Date : 10/16/2025 10:56:42 AM	Project Mgr :
Client Name : AECOM		Project Name : AB1-CTY 3.2.Z-PR-DOCK	Report Type : NYS ASP <i>Ed</i>
Client Contact : Rob Forstner		Receive DateTime : 10/16/2025 5:50:00 PM	EDD Type : EQUIS
Invoice Name : AECOM		Purchase Order : 10/15/2025	Hard Copy Date :
Invoice Contact : Rob Forstner			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3363-01	PR132-SO 1 ₄ -085011-20251015	Solid	10/15/2025	11:57					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q3363-02	PR132-SO 1 ₄ -039085-20251015	Solid	10/15/2025	12:10					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q3363-03	PR132-SO 1 ₃ -028010-20251015	Solid	10/15/2025	13:15					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q3363-04	PR132-SO 1 ₃ -010013-20251015	Solid	10/15/2025	13:30					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q3363-05	COMP01-20251015	Solid	10/15/2025	13:53					
					VOC-TCLVOA-10		8260D	10 Bus. Days	

Relinquished By :

Date / Time : 10/16/25 140

Received By :

Date / Time : 10/16/25

Storage Area : VOA Refridgerator Room

12:18