

Cover Page

Order ID : Q1448

Project ID : Fisal

Client : G Environmental

Lab Sample Number

Q1448-01
Q1448-02
Q1448-03
Q1448-04
Q1448-05

Client Sample Number

PSP1
P1
P2
P3
P4

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 : _____

Date: 3/8/2025

CASE NARRATIVE

G Environmental

Project Name: Fisal

Project # N/A

Chemtech Project # Q1448

Test Name: VOCMS Group2

A. Number of Samples and Date of Receipt:

5 Solid samples were received on 02/26/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOCMS Group2. This data package contains results for VOCMS Group2.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI 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 VOCMS Group2 was based on method 8260D.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for PSP1 [1,2-Dichloroethane-d4 - 63%] this compound did not meet the NJDKQP criteria but met the in-house criteria, while for PSP1 [4-Bromofluorobenzene - 32%] this compound did not meet the NJDKQP criteria and in-house criteria, sample was reanalyzed to confirm the failure and reported.

The Internal Standards Areas met the acceptable requirements except for PSP1, P1, P2, and P4 sample was reanalyzed to confirm the failure and reported while for P3, due to high concentration of compounds, this sample required dilution. Therefore, sample was reanalyzed with dilution and reported.

Some analytes were not match in original and reanalysis but now no more vial for confirmation therefore no corrective action taken.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples.

The Blank Spike Duplicate met requirements for all samples.

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

The Initial Calibration met the requirements.



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

The Continuous Calibration File ID VX045127.D met the requirements except for Tert butyl alcohol is failing low but only dilution sample analyzed under this CCAL and dilution not required for mentioned analyte therefore no corrective action taken.

The Continuous Calibration File ID VY021346.D met the requirements except for Tert butyl alcohol is failing marginally low therefore no corrective action taken.

The Continuous Calibration File ID VY021375.D met the requirements except for Acetone is failing high and associate sample # P4RE have positive hit and Tert butyl alcohol failing low a associated sample initially analyzed in sequence VY022725 where surrogate and internal failing as a corrective action sample reanalyzed but CCAL failing low therefore both run reported.

The Tuning criteria met requirements.

Sample P3 was diluted due to high concentration.

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.

Trip Blank was not provided with this set of samples.

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

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

F. Manual Integration Comments:

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

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

Signature_____



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

DATA REPORTING QUALIFIERS- ORGANIC

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

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1448

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 Custody

✓

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: 03/08/2025

LAB CHRONICLE

OrderID:	Q1448	OrderDate:	2/26/2025 2:42:13 PM
Client:	G Environmental	Project:	Fisal
Contact:	Gary Landis	Location:	H33,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1448-01	PSP1	SOIL	VOCMS Group2	8260D	02/26/25		02/27/25	02/26/25
Q1448-01RE	PSP1RE	SOIL	VOCMS Group2	8260D	02/26/25		02/28/25	02/26/25
Q1448-02	P1	SOIL	VOCMS Group2	8260D	02/26/25		02/27/25	02/26/25
Q1448-02RE	P1RE	SOIL	VOCMS Group2	8260D	02/26/25		02/28/25	02/26/25
Q1448-03	P2	SOIL	VOCMS Group2	8260D	02/26/25		02/27/25	02/26/25
Q1448-03RE	P2RE	SOIL	VOCMS Group2	8260D	02/26/25		02/28/25	02/26/25
Q1448-04	P3	SOIL	VOCMS Group2	8260D	02/26/25		02/27/25	02/26/25
Q1448-04ME	P3ME	SOIL	VOCMS Group2	8260D	02/26/25		03/05/25	02/26/25
Q1448-05	P4	SOIL	VOCMS Group2	8260D	02/26/25		02/27/25	02/26/25
Q1448-05RE	P4RE	SOIL	VOCMS Group2	8260D	02/26/25		02/28/25	02/26/25

Hit Summary Sheet
SW-846

SDG No.: Q1448

Client: G Environmental

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	P2RE							
Q1448-03RE	P2RE	SOIL	Methylene Chloride	9.40	J	3.60	10.6	ug/Kg
			Total Voc :	9.40				
			Total Concentration:	9.40				
Client ID:	P3							
Q1448-04	P3	SOIL	Tert butyl alcohol	410		13.7	22.0	ug/Kg
Q1448-04	P3	SOIL	Benzene	300	E	0.63	4.40	ug/Kg
Q1448-04	P3	SOIL	Toluene	8.30		0.59	4.40	ug/Kg
Q1448-04	P3	SOIL	m/p-Xylenes	2.10	J	1.20	8.80	ug/Kg
Q1448-04	P3	SOIL	o-Xylene	2.90	J	0.62	4.40	ug/Kg
			Total Voc :	723				
			Total Concentration:	723				
Client ID:	P3ME							
Q1448-04ME	P3ME	SOIL	Benzene	1800	D	68.2	470	ug/Kg
Q1448-04ME	P3ME	SOIL	Toluene	140	JD	63.5	470	ug/Kg
Q1448-04ME	P3ME	SOIL	m/p-Xylenes	150	JD	130	950	ug/Kg
Q1448-04ME	P3ME	SOIL	o-Xylene	220	JD	66.3	470	ug/Kg
			Total Voc :	2310				
			Total Concentration:	2310				
Client ID:	P4RE							
Q1448-05RE	P4RE	SOIL	Tert butyl alcohol	220		16.0	25.6	ug/Kg
Q1448-05RE	P4RE	SOIL	Acetone	82.2		6.40	25.6	ug/Kg
Q1448-05RE	P4RE	SOIL	Methylene Chloride	7.00	J	3.50	10.2	ug/Kg
			Total Voc :	309				
			Total Concentration:	309				



QC SUMMARY

Surrogate Summary

SDG No.: **Q1448**

Client: **G Environmental**

Analytical Method: **SW8260D**

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q1448-01	PSP1	1,2-Dichloroethane-d4	50	31.5	63 *	70 (63)	130 (155)
		Dibromofluoromethane	50	51.4	103	70 (70)	130 (134)
		Toluene-d8	50	41.4	83	70 (74)	130 (123)
		4-Bromofluorobenzene	50	16.2	32 *	70 (38)	130 (136)
Q1448-01RE	PSP1RE	1,2-Dichloroethane-d4	50	54.6	109	70 (63)	130 (155)
		Dibromofluoromethane	50	53.9	108	70 (70)	130 (134)
		Toluene-d8	50	48.6	97	70 (74)	130 (123)
		4-Bromofluorobenzene	50	41.8	84	70 (38)	130 (136)
Q1448-02	P1	1,2-Dichloroethane-d4	50	57.4	115	70 (63)	130 (155)
		Dibromofluoromethane	50	54.1	108	70 (70)	130 (134)
		Toluene-d8	50	47.2	94	70 (74)	130 (123)
		4-Bromofluorobenzene	50	40.6	81	70 (38)	130 (136)
Q1448-02RE	P1RE	1,2-Dichloroethane-d4	50	60.6	121	70 (63)	130 (155)
		Dibromofluoromethane	50	55.3	111	70 (70)	130 (134)
		Toluene-d8	50	48.0	96	70 (74)	130 (123)
		4-Bromofluorobenzene	50	41.1	82	70 (38)	130 (136)
Q1448-03	P2	1,2-Dichloroethane-d4	50	56.2	112	70 (63)	130 (155)
		Dibromofluoromethane	50	53.6	107	70 (70)	130 (134)
		Toluene-d8	50	47.3	95	70 (74)	130 (123)
		4-Bromofluorobenzene	50	38.5	77	70 (38)	130 (136)
Q1448-03RE	P2RE	1,2-Dichloroethane-d4	50	59.4	119	70 (63)	130 (155)
		Dibromofluoromethane	50	54.8	110	70 (70)	130 (134)
		Toluene-d8	50	47.4	95	70 (74)	130 (123)
		4-Bromofluorobenzene	50	38.7	77	70 (38)	130 (136)
Q1448-04	P3	1,2-Dichloroethane-d4	50	50.7	101	70 (63)	130 (155)
		Dibromofluoromethane	50	50.2	100	70 (70)	130 (134)
		Toluene-d8	50	53.1	106	70 (74)	130 (123)
		4-Bromofluorobenzene	50	35.5	71	70 (38)	130 (136)
Q1448-04ME	P3ME	1,2-Dichloroethane-d4	50	49.2	98	70 (63)	130 (155)
		Dibromofluoromethane	50	48.9	98	70 (70)	130 (134)
		Toluene-d8	50	50.7	101	70 (74)	130 (123)
		4-Bromofluorobenzene	50	54.6	109	70 (38)	130 (136)
Q1448-05	P4	1,2-Dichloroethane-d4	50	55.6	111	70 (63)	130 (155)
		Dibromofluoromethane	50	52.5	105	70 (70)	130 (134)
		Toluene-d8	50	46.8	94	70 (74)	130 (123)
		4-Bromofluorobenzene	50	41.2	82	70 (38)	130 (136)
Q1448-05RE	P4RE	1,2-Dichloroethane-d4	50	58.4	117	70 (63)	130 (155)
		Dibromofluoromethane	50	54.9	110	70 (70)	130 (134)
		Toluene-d8	50	47.9	96	70 (74)	130 (123)
		4-Bromofluorobenzene	50	38.6	77	70 (38)	130 (136)
VX0305MBL01	VX0305MBL01	1,2-Dichloroethane-d4	50	52.8	106	70 (63)	130 (155)
		Dibromofluoromethane	50	50.8	102	70 (70)	130 (134)
		Toluene-d8	50	51.4	103	70 (74)	130 (123)
		4-Bromofluorobenzene	50	52.4	105	70 (38)	130 (136)
VX0305MBS01	VX0305MBS01	1,2-Dichloroethane-d4	50	48.4	97	70 (63)	130 (155)
		Dibromofluoromethane	50	49.5	99	70 (70)	130 (134)
		Toluene-d8	50	50.5	101	70 (74)	130 (123)
		4-Bromofluorobenzene	50	50.2	100	70 (38)	130 (136)
VY0227SBL01	VY0227SBL01	1,2-Dichloroethane-d4	50	59.2	118	70 (63)	130 (155)
		Dibromofluoromethane	50	52.5	105	70 (70)	130 (134)

() = LABORATORY INHOUSE LIMIT

Surrogate Summary

SDG No.: **Q1448**

Client: **G Environmental**

Analytical Method: **SW8260D**

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
VY0227SBL01	VY0227SBL01	Toluene-d8	50	48.2	96	70 (74)	130 (123)
		4-Bromofluorobenzene	50	49.5	99	70 (38)	130 (136)
VY0227SBS01	VY0227SBS01	1,2-Dichloroethane-d4	50	51.1	102	70 (63)	130 (155)
		Dibromofluoromethane	50	52.3	105	70 (70)	130 (134)
		Toluene-d8	50	52.3	105	70 (74)	130 (123)
		4-Bromofluorobenzene	50	52.4	105	70 (38)	130 (136)
VY0227SBSD01	VY0227SBSD01	1,2-Dichloroethane-d4	50	45.2	90	70 (63)	130 (155)
		Dibromofluoromethane	50	45.6	91	70 (70)	130 (134)
		Toluene-d8	50	45.3	91	70 (74)	130 (123)
		4-Bromofluorobenzene	50	45.3	91	70 (38)	130 (136)
VY0228SBL01	VY0228SBL01	1,2-Dichloroethane-d4	50	52.2	104	70 (63)	130 (155)
		Dibromofluoromethane	50	52.0	104	70 (70)	130 (134)
		Toluene-d8	50	47.1	94	70 (74)	130 (123)
		4-Bromofluorobenzene	50	40.7	81	70 (38)	130 (136)
VY0228SBS01	VY0228SBS01	1,2-Dichloroethane-d4	50	43.2	86	70 (63)	130 (155)
		Dibromofluoromethane	50	45.7	91	70 (70)	130 (134)
		Toluene-d8	50	44.4	89	70 (74)	130 (123)
		4-Bromofluorobenzene	50	43.7	87	70 (38)	130 (136)

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1448

Client: G Environmental

Analytical Method: SW8260D

Datafile : VX045131.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0305MBS01	Chloromethane	2000	1600	ug/Kg	80			40 (70)	160 (130)	
	Vinyl chloride	2000	1700	ug/Kg	85			70 (72)	130 (129)	
	Bromomethane	2000	1600	ug/Kg	80			40 (58)	160 (141)	
	Chloroethane	2000	1400	ug/Kg	70			40 (69)	160 (130)	
	Tert butyl alcohol	10000	7600	ug/Kg	76			70 (24)	130 (175)	
	1,1-Dichloroethene	2000	1700	ug/Kg	85			70 (79)	130 (121)	
	Acetone	10000	8500	ug/Kg	85			40 (60)	160 (131)	
	Carbon disulfide	2000	1500	ug/Kg	75			40 (45)	160 (154)	
	Methyl tert-butyl Ether	2000	1800	ug/Kg	90			70 (77)	130 (129)	
	Methylene Chloride	2000	1700	ug/Kg	85			70 (56)	130 (174)	
	trans-1,2-Dichloroethene	2000	1800	ug/Kg	90			70 (80)	130 (123)	
	1,1-Dichloroethane	2000	1700	ug/Kg	85			70 (82)	130 (123)	
	2-Butanone	10000	9100	ug/Kg	91			40 (69)	160 (131)	
	Carbon Tetrachloride	2000	1800	ug/Kg	90			70 (76)	130 (129)	
	cis-1,2-Dichloroethene	2000	1800	ug/Kg	90			70 (82)	130 (123)	
	Chloroform	2000	1800	ug/Kg	90			70 (82)	130 (125)	
	1,1,1-Trichloroethane	2000	1700	ug/Kg	85			70 (80)	130 (126)	
	Benzene	2000	1800	ug/Kg	90			70 (84)	130 (121)	
	1,2-Dichloroethane	2000	1800	ug/Kg	90			70 (81)	130 (126)	
	Trichloroethene	2000	1800	ug/Kg	90			70 (83)	130 (122)	
	1,2-Dichloropropane	2000	1800	ug/Kg	90			70 (83)	130 (122)	
	Bromodichloromethane	2000	1800	ug/Kg	90			70 (82)	130 (123)	
	4-Methyl-2-Pentanone	10000	9400	ug/Kg	94			40 (70)	160 (135)	
	Toluene	2000	1900	ug/Kg	95			70 (83)	130 (122)	
	t-1,3-Dichloropropene	2000	1800	ug/Kg	90			70 (78)	130 (124)	
	cis-1,3-Dichloropropene	2000	1900	ug/Kg	95			70 (81)	130 (122)	
	1,1,2-Trichloroethane	2000	1800	ug/Kg	90			70 (82)	130 (125)	
	2-Hexanone	10000	9500	ug/Kg	95			40 (66)	160 (138)	
	Dibromochloromethane	2000	1800	ug/Kg	90			70 (79)	130 (125)	
	Tetrachloroethene	2000	1800	ug/Kg	90			70 (83)	130 (125)	
	Chlorobenzene	2000	1800	ug/Kg	90			70 (84)	130 (122)	
	Ethyl Benzene	2000	1800	ug/Kg	90			70 (82)	130 (124)	
	m/p-Xylenes	4000	3800	ug/Kg	95			70 (83)	130 (124)	
	o-Xylene	2000	1900	ug/Kg	95			70 (83)	130 (123)	
	Styrene	2000	1900	ug/Kg	95			70 (82)	130 (124)	
	Bromoform	2000	1700	ug/Kg	85			70 (75)	130 (127)	
	1,1,2,2-Tetrachloroethane	2000	1800	ug/Kg	90			70 (77)	130 (127)	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1448

Client: G Environmental

Analytical Method: SW8260D

Datafile : VY021348.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0227SBS01	Chloromethane	20	18.5	ug/Kg	93			40 (70)	160 (130)	
	Vinyl chloride	20	19.3	ug/Kg	97			70 (72)	130 (129)	
	Bromomethane	20	19.1	ug/Kg	96			40 (58)	160 (141)	
	Chloroethane	20	19.9	ug/Kg	100			40 (69)	160 (130)	
	Tert butyl alcohol	100	88.9	ug/Kg	89			70 (24)	130 (175)	
	1,1-Dichloroethene	20	19.9	ug/Kg	100			70 (79)	130 (121)	
	Acetone	100	110	ug/Kg	110			40 (60)	160 (131)	
	Carbon disulfide	20	18.5	ug/Kg	93			40 (45)	160 (154)	
	Methyl tert-butyl Ether	20	19.1	ug/Kg	96			70 (77)	130 (129)	
	Methylene Chloride	20	19.9	ug/Kg	100			70 (56)	130 (174)	
	trans-1,2-Dichloroethene	20	19.6	ug/Kg	98			70 (80)	130 (123)	
	1,1-Dichloroethane	20	19.5	ug/Kg	98			70 (82)	130 (123)	
	2-Butanone	100	97.4	ug/Kg	97			40 (69)	160 (131)	
	Carbon Tetrachloride	20	19.9	ug/Kg	100			70 (76)	130 (129)	
	cis-1,2-Dichloroethene	20	19.5	ug/Kg	98			70 (82)	130 (123)	
	Chloroform	20	20.1	ug/Kg	101			70 (82)	130 (125)	
	1,1,1-Trichloroethane	20	20.0	ug/Kg	100			70 (80)	130 (126)	
	Benzene	20	19.9	ug/Kg	100			70 (84)	130 (121)	
	1,2-Dichloroethane	20	20.3	ug/Kg	102			70 (81)	130 (126)	
	Trichloroethene	20	20.0	ug/Kg	100			70 (83)	130 (122)	
	1,2-Dichloropropane	20	19.8	ug/Kg	99			70 (83)	130 (122)	
	Bromodichloromethane	20	20.2	ug/Kg	101			70 (82)	130 (123)	
	4-Methyl-2-Pentanone	100	92.0	ug/Kg	92			40 (70)	160 (135)	
	Toluene	20	20.2	ug/Kg	101			70 (83)	130 (122)	
	t-1,3-Dichloropropene	20	19.5	ug/Kg	98			70 (78)	130 (124)	
	cis-1,3-Dichloropropene	20	19.4	ug/Kg	97			70 (81)	130 (122)	
	1,1,2-Trichloroethane	20	20.1	ug/Kg	101			70 (82)	130 (125)	
	2-Hexanone	100	95.9	ug/Kg	96			40 (66)	160 (138)	
	Dibromochloromethane	20	19.8	ug/Kg	99			70 (79)	130 (125)	
	Tetrachloroethene	20	19.9	ug/Kg	100			70 (83)	130 (125)	
	Chlorobenzene	20	19.8	ug/Kg	99			70 (84)	130 (122)	
	Ethyl Benzene	20	20.1	ug/Kg	101			70 (82)	130 (124)	
	m/p-Xylenes	40	40.4	ug/Kg	101			70 (83)	130 (124)	
	o-Xylene	20	19.8	ug/Kg	99			70 (83)	130 (123)	
	Styrene	20	19.8	ug/Kg	99			70 (82)	130 (124)	
	Bromoform	20	19.9	ug/Kg	100			70 (75)	130 (127)	
	1,1,2,2-Tetrachloroethane	20	18.9	ug/Kg	95			70 (77)	130 (127)	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1448

Client: G Environmental

Analytical Method: SW8260D

Datafile : VY021349.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0227SBSD01	Chloromethane	20	18.3	ug/Kg	92	1		40 (70)	160 (130)	30 (20)
	Vinyl chloride	20	18.6	ug/Kg	93	4		70 (72)	130 (129)	30 (20)
	Bromomethane	20	18.6	ug/Kg	93	3		40 (58)	160 (141)	30 (20)
	Chloroethane	20	19.7	ug/Kg	99	1		40 (69)	160 (130)	30 (20)
	Tert butyl alcohol	100	96.4	ug/Kg	96	8		70 (24)	130 (175)	30 (20)
	1,1-Dichloroethene	20	19.5	ug/Kg	98	2		70 (79)	130 (121)	30 (20)
	Acetone	100	100	ug/Kg	100	10		40 (60)	160 (131)	30 (20)
	Carbon disulfide	20	18.4	ug/Kg	92	1		40 (45)	160 (154)	30 (20)
	Methyl tert-butyl Ether	20	19.9	ug/Kg	100	4		70 (77)	130 (129)	30 (20)
	Methylene Chloride	20	20.8	ug/Kg	104	4		70 (56)	130 (174)	30 (20)
	trans-1,2-Dichloroethene	20	19.4	ug/Kg	97	1		70 (80)	130 (123)	30 (20)
	1,1-Dichloroethane	20	19.3	ug/Kg	97	1		70 (82)	130 (123)	30 (20)
	2-Butanone	100	100	ug/Kg	100	3		40 (69)	160 (131)	30 (20)
	Carbon Tetrachloride	20	19.8	ug/Kg	99	1		70 (76)	130 (129)	30 (20)
	cis-1,2-Dichloroethene	20	19.7	ug/Kg	99	1		70 (82)	130 (123)	30 (20)
	Chloroform	20	19.9	ug/Kg	100	1		70 (82)	130 (125)	30 (20)
	1,1,1-Trichloroethane	20	19.7	ug/Kg	99	1		70 (80)	130 (126)	30 (20)
	Benzene	20	19.8	ug/Kg	99	1		70 (84)	130 (121)	30 (20)
	1,2-Dichloroethane	20	20.4	ug/Kg	102	0		70 (81)	130 (126)	30 (20)
	Trichloroethene	20	20.0	ug/Kg	100	0		70 (83)	130 (122)	30 (20)
	1,2-Dichloropropane	20	19.6	ug/Kg	98	1		70 (83)	130 (122)	30 (20)
	Bromodichloromethane	20	20.2	ug/Kg	101	0		70 (82)	130 (123)	30 (20)
	4-Methyl-2-Pentanone	100	99.2	ug/Kg	99	7		40 (70)	160 (135)	30 (20)
	Toluene	20	19.9	ug/Kg	100	1		70 (83)	130 (122)	30 (20)
	t-1,3-Dichloropropene	20	19.7	ug/Kg	99	1		70 (78)	130 (124)	30 (20)
	cis-1,3-Dichloropropene	20	19.5	ug/Kg	98	1		70 (81)	130 (122)	30 (20)
	1,1,2-Trichloroethane	20	20.3	ug/Kg	102	1		70 (82)	130 (125)	30 (20)
	2-Hexanone	100	99.7	ug/Kg	100	4		40 (66)	160 (138)	30 (20)
	Dibromochloromethane	20	20.6	ug/Kg	103	4		70 (79)	130 (125)	30 (20)
	Tetrachloroethene	20	19.7	ug/Kg	99	1		70 (83)	130 (125)	30 (20)
	Chlorobenzene	20	19.6	ug/Kg	98	1		70 (84)	130 (122)	30 (20)
	Ethyl Benzene	20	19.7	ug/Kg	99	2		70 (82)	130 (124)	30 (20)
	m/p-Xylenes	40	39.4	ug/Kg	99	2		70 (83)	130 (124)	30 (20)
	o-Xylene	20	19.7	ug/Kg	99	0		70 (83)	130 (123)	30 (20)
	Styrene	20	19.5	ug/Kg	98	1		70 (82)	130 (124)	30 (20)
	Bromoform	20	19.9	ug/Kg	100	0		70 (75)	130 (127)	30 (20)
	1,1,2,2-Tetrachloroethane	20	20.3	ug/Kg	102	7		70 (77)	130 (127)	30 (20)

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1448

Client: G Environmental

Analytical Method: SW8260D

Datafile : VY021377.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0228SBS01	Chloromethane	20	17.7	ug/Kg	89			40 (70)	160 (130)	
	Vinyl chloride	20	19.3	ug/Kg	97			70 (72)	130 (129)	
	Bromomethane	20	20.1	ug/Kg	101			40 (58)	160 (141)	
	Chloroethane	20	20.1	ug/Kg	101			40 (69)	160 (130)	
	Tert butyl alcohol	100	82.2	ug/Kg	82			70 (24)	130 (175)	
	1,1-Dichloroethene	20	18.8	ug/Kg	94			70 (79)	130 (121)	
	Acetone	100	77.6	ug/Kg	78			40 (60)	160 (131)	
	Carbon disulfide	20	17.4	ug/Kg	87			40 (45)	160 (154)	
	Methyl tert-butyl Ether	20	18.8	ug/Kg	94			70 (77)	130 (129)	
	Methylene Chloride	20	19.1	ug/Kg	96			70 (56)	130 (174)	
	trans-1,2-Dichloroethene	20	18.4	ug/Kg	92			70 (80)	130 (123)	
	1,1-Dichloroethane	20	18.2	ug/Kg	91			70 (82)	130 (123)	
	2-Butanone	100	83.5	ug/Kg	84			40 (69)	160 (131)	
	Carbon Tetrachloride	20	19.5	ug/Kg	98			70 (76)	130 (129)	
	cis-1,2-Dichloroethene	20	18.7	ug/Kg	94			70 (82)	130 (123)	
	Chloroform	20	18.9	ug/Kg	95			70 (82)	130 (125)	
	1,1,1-Trichloroethane	20	19.1	ug/Kg	96			70 (80)	130 (126)	
	Benzene	20	19.1	ug/Kg	96			70 (84)	130 (121)	
	1,2-Dichloroethane	20	19.5	ug/Kg	98			70 (81)	130 (126)	
	Trichloroethene	20	19.6	ug/Kg	98			70 (83)	130 (122)	
	1,2-Dichloropropane	20	19.0	ug/Kg	95			70 (83)	130 (122)	
	Bromodichloromethane	20	19.7	ug/Kg	99			70 (82)	130 (123)	
	4-Methyl-2-Pentanone	100	92.3	ug/Kg	92			40 (70)	160 (135)	
	Toluene	20	19.3	ug/Kg	97			70 (83)	130 (122)	
	t-1,3-Dichloropropene	20	18.6	ug/Kg	93			70 (78)	130 (124)	
	cis-1,3-Dichloropropene	20	18.7	ug/Kg	94			70 (81)	130 (122)	
	1,1,2-Trichloroethane	20	19.7	ug/Kg	99			70 (82)	130 (125)	
	2-Hexanone	100	91.3	ug/Kg	91			40 (66)	160 (138)	
	Dibromochloromethane	20	20.4	ug/Kg	102			70 (79)	130 (125)	
	Tetrachloroethene	20	20.4	ug/Kg	102			70 (83)	130 (125)	
	Chlorobenzene	20	19.7	ug/Kg	99			70 (84)	130 (122)	
	Ethyl Benzene	20	19.1	ug/Kg	96			70 (82)	130 (124)	
	m/p-Xylenes	40	39.2	ug/Kg	98			70 (83)	130 (124)	
	o-Xylene	20	19.4	ug/Kg	97			70 (83)	130 (123)	
	Styrene	20	19.6	ug/Kg	98			70 (82)	130 (124)	
	Bromoform	20	20.2	ug/Kg	101			70 (75)	130 (127)	
	1,1,2,2-Tetrachloroethane	20	19.2	ug/Kg	96			70 (77)	130 (127)	

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0305MBL01

Lab Name: CHEMTECH

Contract: GENV01

Lab Code: CHEM Case No.: Q1448

SAS No.: Q1448 SDG NO.: Q1448

Lab File ID: VX045128.D

Lab Sample ID: VX0305MBL01

Date Analyzed: 03/05/2025

Time Analyzed: 09:39

GC Column: DB-624UI ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX0305MBS01	VX0305MBS01	VX045131.D	03/05/2025
P3ME	Q1448-04ME	VX045133.D	03/05/2025

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0227SBL01

Lab Name: CHEMTECH

Contract: GENV01

Lab Code: CHEM Case No.: Q1448

SAS No.: Q1448 SDG NO.: Q1448

Lab File ID: VY021347.D

Lab Sample ID: VY0227SBL01

Date Analyzed: 02/27/2025

Time Analyzed: 10:42

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
VY0227SBS01	VY0227SBS01	VY021348.D	02/27/2025
VY0227SBSD01	VY0227SBSD01	VY021349.D	02/27/2025
PSP1	Q1448-01	VY021366.D	02/27/2025
P1	Q1448-02	VY021367.D	02/27/2025
P2	Q1448-03	VY021368.D	02/27/2025
P3	Q1448-04	VY021369.D	02/27/2025
P4	Q1448-05	VY021370.D	02/27/2025

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0228SBL01

Lab Name: CHEMTECH

Contract: GENV01

Lab Code: CHEM Case No.: Q1448

SAS No.: Q1448 SDG NO.: Q1448

Lab File ID: VY021376.D

Lab Sample ID: VY0228SBL01

Date Analyzed: 02/28/2025

Time Analyzed: 10:59

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
VY0228SBS01	VY0228SBS01	VY021377.D	02/28/2025
PSP1RE	Q1448-01RE	VY021382.D	02/28/2025
P1RE	Q1448-02RE	VY021383.D	02/28/2025
P2RE	Q1448-03RE	VY021384.D	02/28/2025
P4RE	Q1448-05RE	VY021385.D	02/28/2025

COMMENTS: _____



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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GENV01
Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
Lab File ID: VX045067.D BFB Injection Date: 02/28/2025
Instrument ID: MSVOA_X BFB Injection Time: 01:03
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.7
75	30.0 - 60.0% of mass 95	53.6
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	0.7 (1) 1
174	50.0 - 100.0% of mass 95	73.8
175	5.0 - 9.0% of mass 174	5.8 (7.9) 1
176	95.0 - 101.0% of mass 174	70.6 (95.6) 1
177	5.0 - 9.0% of mass 176	4.3 (6.2) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC001	VSTDIC001	VX045068.D	02/28/2025	01:27
VSTDIC005	VSTDIC005	VX045069.D	02/28/2025	02:13
VSTDIC020	VSTDIC020	VX045070.D	02/28/2025	02:37
VSTDIC050	VSTDIC050	VX045071.D	02/28/2025	03:00
VSTDIC100	VSTDIC100	VX045072.D	02/28/2025	03:23
VSTDIC150	VSTDIC150	VX045073.D	02/28/2025	03:47



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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GENV01
Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
Lab File ID: VX045126.D BFB Injection Date: 03/05/2025
Instrument ID: MSVOA_X BFB Injection Time: 08:40
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21
75	30.0 - 60.0% of mass 95	53.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.8 (1.1) 1
174	50.0 - 100.0% of mass 95	77
175	5.0 - 9.0% of mass 174	5.1 (6.7) 1
176	95.0 - 101.0% of mass 174	73.3 (95.1) 1
177	5.0 - 9.0% of mass 176	5 (6.9) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX045127.D	03/05/2025	09:12
VX0305MBL01	VX0305MBL01	VX045128.D	03/05/2025	09:39
VX0305MBS01	VX0305MBS01	VX045131.D	03/05/2025	10:53
P3ME	Q1448-04ME	VX045133.D	03/05/2025	11:40



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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GENV01
Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
Lab File ID: VY021308.D BFB Injection Date: 02/25/2025
Instrument ID: MSVOA_Y BFB Injection Time: 12:10
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	20.8
75	30.0 - 60.0% of mass 95	55.4
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	0.7 (0.8) 1
174	50.0 - 100.0% of mass 95	84.7
175	5.0 - 9.0% of mass 174	6.4 (7.5) 1
176	95.0 - 101.0% of mass 174	83.6 (98.8) 1
177	5.0 - 9.0% of mass 176	5.5 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VY021309.D	02/25/2025	12:40
VSTDIC010	VSTDIC010	VY021310.D	02/25/2025	13:03
VSTDIC020	VSTDIC020	VY021311.D	02/25/2025	13:26
VSTDIC050	VSTDIC050	VY021312.D	02/25/2025	14:48
VSTDIC150	VSTDIC150	VY021314.D	02/25/2025	15:57
VSTDIC100	VSTDIC100	VY021316.D	02/25/2025	16:49



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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GENV01
Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
Lab File ID: VY021345.D BFB Injection Date: 02/27/2025
Instrument ID: MSVOA_Y BFB Injection Time: 09:41
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	21.8
75	30.0 - 60.0% of mass 95	54.4
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	1.2 (1.4) 1
174	50.0 - 100.0% of mass 95	83.3
175	5.0 - 9.0% of mass 174	6.5 (7.8) 1
176	95.0 - 101.0% of mass 174	80.4 (96.4) 1
177	5.0 - 9.0% of mass 176	5.2 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VY021346.D	02/27/2025	10:13
VY0227SBL01	VY0227SBL01	VY021347.D	02/27/2025	10:42
VY0227SBS01	VY0227SBS01	VY021348.D	02/27/2025	11:18
VY0227SBSD01	VY0227SBSD01	VY021349.D	02/27/2025	11:40
PSP1	Q1448-01	VY021366.D	02/27/2025	18:19
P1	Q1448-02	VY021367.D	02/27/2025	18:42
P2	Q1448-03	VY021368.D	02/27/2025	19:06
P3	Q1448-04	VY021369.D	02/27/2025	19:29
P4	Q1448-05	VY021370.D	02/27/2025	19:52



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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GENV01
Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
Lab File ID: VY021374.D BFB Injection Date: 02/28/2025
Instrument ID: MSVOA_Y BFB Injection Time: 09:03
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	22.7
75	30.0 - 60.0% of mass 95	56.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	1.4 (1.6) 1
174	50.0 - 100.0% of mass 95	84
175	5.0 - 9.0% of mass 174	6.5 (7.7) 1
176	95.0 - 101.0% of mass 174	80.5 (95.9) 1
177	5.0 - 9.0% of mass 176	5.2 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VY021375.D	02/28/2025	09:44
VY0228SBL01	VY0228SBL01	VY021376.D	02/28/2025	10:59
VY0228SBS01	VY0228SBS01	VY021377.D	02/28/2025	11:32
PSP1RE	Q1448-01RE	VY021382.D	02/28/2025	15:55
P1RE	Q1448-02RE	VY021383.D	02/28/2025	16:18
P2RE	Q1448-03RE	VY021384.D	02/28/2025	16:41
P4RE	Q1448-05RE	VY021385.D	02/28/2025	17:05

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: GENV01
Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
Lab File ID: VX045127.D Date Analyzed: 03/05/2025
Instrument ID: MSVOA_X Time Analyzed: 09:12
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	112291	5.54	190470	6.75	164207	10.05
UPPER LIMIT	224582	6.044	380940	7.251	328414	10.549
LOWER LIMIT	56145.5	5.044	95235	6.251	82103.5	9.549
EPA SAMPLE NO.						
P3ME	67331	5.54	128533	6.76	115484	10.06
VX0305MBL01	68268	5.54	138238	6.76	127715	10.05
VX0305MBS01	93506	5.54	165212	6.76	145087	10.06

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: CHEMTECH Contract: GENV01
 Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
 Lab File ID: VX045127.D Date Analyzed: 03/05/2025
 Instrument ID: MSVOA_X Time Analyzed: 09:12
 GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	74481	12.018				
UPPER LIMIT	148962	12.518				
LOWER LIMIT	37240.5	11.518				
EPA SAMPLE NO.						
P3ME	55033	12.02				
VX0305MBL01	54682	12.02				
VX0305MBS01	66055	12.02				

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: CHEMTECH Contract: GENV01
Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
Lab File ID: VY021346.D Date Analyzed: 02/27/2025
Instrument ID: MSVOA_Y Time Analyzed: 10:13
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	216838	7.71	336652	8.62	298167	11.42
UPPER LIMIT	433676	8.207	673304	9.116	596334	11.92
LOWER LIMIT	108419	7.207	168326	8.116	149084	10.92
EPA SAMPLE NO.						
PSP1	12088 *	7.71	15555 *	8.62	8208 *	11.42
P1	108147 *	7.71	190726	8.62	166640	11.41
P2	110830	7.71	195290	8.62	166522	11.41
P3	116202	7.71	199239	8.61	161221	11.41
P4	106086 *	7.71	190393	8.62	166895	11.41
VY0227SBL01	140233	7.71	264026	8.62	255103	11.41
VY0227SBS01	199987	7.71	311959	8.62	272418	11.41
VY0227SBSD01	198659	7.71	310671	8.61	272052	11.41

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: CHEMTECH Contract: GENV01
 Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
 Lab File ID: VY021346.D Date Analyzed: 02/27/2025
 Instrument ID: MSVOA_Y Time Analyzed: 10:13
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	146841	13.347				
UPPER LIMIT	293682	13.847				
LOWER LIMIT	73420.5	12.847				
EPA SAMPLE NO.						
PSP1	1197 *	13.35				
P1	61007 *	13.35				
P2	57355 *	13.35				
P3	42795 *	13.35				
P4	65580 *	13.35				
VY0227SBL01	107368	13.35				
VY0227SBS01	138215	13.35				
VY0227SBSD01	137933	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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: GENV01
 Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
 Lab File ID: VY021375.D Date Analyzed: 02/28/2025
 Instrument ID: MSVOA_Y Time Analyzed: 09:44
 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	170466	7.71	255493	8.62	227302	11.42
UPPER LIMIT	340932	8.207	510986	9.116	454604	11.92
LOWER LIMIT	85233	7.207	127747	8.116	113651	10.92
EPA SAMPLE NO.						
PSP1RE	129382	7.71	230156	8.62	205658	11.41
P1RE	128523	7.70	234842	8.62	209615	11.41
P2RE	121901	7.71	220759	8.62	190273	11.41
P4RE	127050	7.71	227538	8.62	195919	11.41
VY0228SBL01	105534	7.71	180558	8.62	159029	11.42
VY0228SBS01	168970	7.71	257471	8.62	224033	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: CHEMTECH Contract: GENV01
 Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG NO.: Q1448
 Lab File ID: VY021375.D Date Analyzed: 02/28/2025
 Instrument ID: MSVOA_Y Time Analyzed: 09:44
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	113605	13.353				
UPPER LIMIT	227210	13.853				
LOWER LIMIT	56802.5	12.853				
EPA SAMPLE NO.						
PSP1RE	76917	13.35				
P1RE	75987	13.35				
P2RE	61708	13.35				
P4RE	63405	13.35				
VY0228SBL01	59388	13.35				
VY0228SBS01	115456	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

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	PSP1	SDG No.:	Q1448
Lab Sample ID:	Q1448-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.2
Sample Wt/Vol:	6.54	Units: g	Final Vol: 5000 uL
Soil Aliquot Vol:		uL	Test: VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level : LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021366.D	1		02/27/25 18:19	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	0.99	U	0.99	4.30	ug/Kg
75-01-4	Vinyl Chloride	0.66	U	0.66	4.30	ug/Kg
74-83-9	Bromomethane	0.88	U	0.88	4.30	ug/Kg
75-00-3	Chloroethane	0.87	U	0.87	4.30	ug/Kg
75-65-0	Tert butyl alcohol	13.4	U	13.4	21.4	ug/Kg
75-35-4	1,1-Dichloroethene	0.67	U	0.67	4.30	ug/Kg
67-64-1	Acetone	5.30	U	5.30	21.4	ug/Kg
75-15-0	Carbon Disulfide	1.10	U	1.10	4.30	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.57	U	0.57	4.30	ug/Kg
75-09-2	Methylene Chloride	2.90	U	2.90	8.60	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.72	U	0.72	4.30	ug/Kg
75-34-3	1,1-Dichloroethane	0.54	U	0.54	4.30	ug/Kg
78-93-3	2-Butanone	4.90	U	4.90	21.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.75	U	0.75	4.30	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.52	U	0.52	4.30	ug/Kg
67-66-3	Chloroform	0.57	U	0.57	4.30	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.67	U	0.67	4.30	ug/Kg
71-43-2	Benzene	0.62	U	0.62	4.30	ug/Kg
107-06-2	1,2-Dichloroethane	0.52	U	0.52	4.30	ug/Kg
79-01-6	Trichloroethene	0.64	U	0.64	4.30	ug/Kg
78-87-5	1,2-Dichloropropane	0.57	U	0.57	4.30	ug/Kg
75-27-4	Bromodichloromethane	0.48	U	0.48	4.30	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.70	U	3.70	21.4	ug/Kg
108-88-3	Toluene	0.57	U	0.57	4.30	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.51	U	0.51	4.30	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.49	U	0.49	4.30	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.72	U	0.72	4.30	ug/Kg
591-78-6	2-Hexanone	4.10	U	4.10	21.4	ug/Kg
124-48-1	Dibromochloromethane	0.56	U	0.56	4.30	ug/Kg
127-18-4	Tetrachloroethene	0.76	U	0.76	4.30	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	PSP1	SDG No.:	Q1448
Lab Sample ID:	Q1448-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.2
Sample Wt/Vol:	6.54 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021366.D	1		02/27/25 18:19	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.63	U	0.63	4.30	ug/Kg
100-41-4	Ethyl Benzene	0.53	U	0.53	4.30	ug/Kg
179601-23-1	m/p-Xylenes	1.20	U	1.20	8.60	ug/Kg
95-47-6	o-Xylene	0.60	U	0.60	4.30	ug/Kg
100-42-5	Styrene	0.51	U	0.51	4.30	ug/Kg
75-25-2	Bromoform	0.69	U	0.69	4.30	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.94	U	0.94	4.30	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	31.5	*	70 (63) - 130 (155)	63%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		70 (70) - 130 (134)	103%	SPK: 50
2037-26-5	Toluene-d8	41.4		70 (74) - 130 (123)	83%	SPK: 50
460-00-4	4-Bromofluorobenzene	16.2	*	70 (38) - 130 (136)	32%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	12100	7.713			
540-36-3	1,4-Difluorobenzene	15600	8.616			
3114-55-4	Chlorobenzene-d5	8210	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	1200	13.346			

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\VY022725\
 Data File : VY021366.D
 Acq On : 27 Feb 2025 18:19
 Operator : SY/MD
 Sample : Q1448-01
 Misc : 6.54g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 23 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 PSP1

Quant Time: Feb 28 00:44:02 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.713	168	12088	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	15555	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	8208	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	1197	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	4321	31.511	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	63.020%
35) Dibromofluoromethane	7.628	113	5243	51.412	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	102.820%
50) Toluene-d8	10.109	98	16312	41.388	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	82.780%
62) 4-Bromofluorobenzene	12.402	95	2148	16.194	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	32.380%

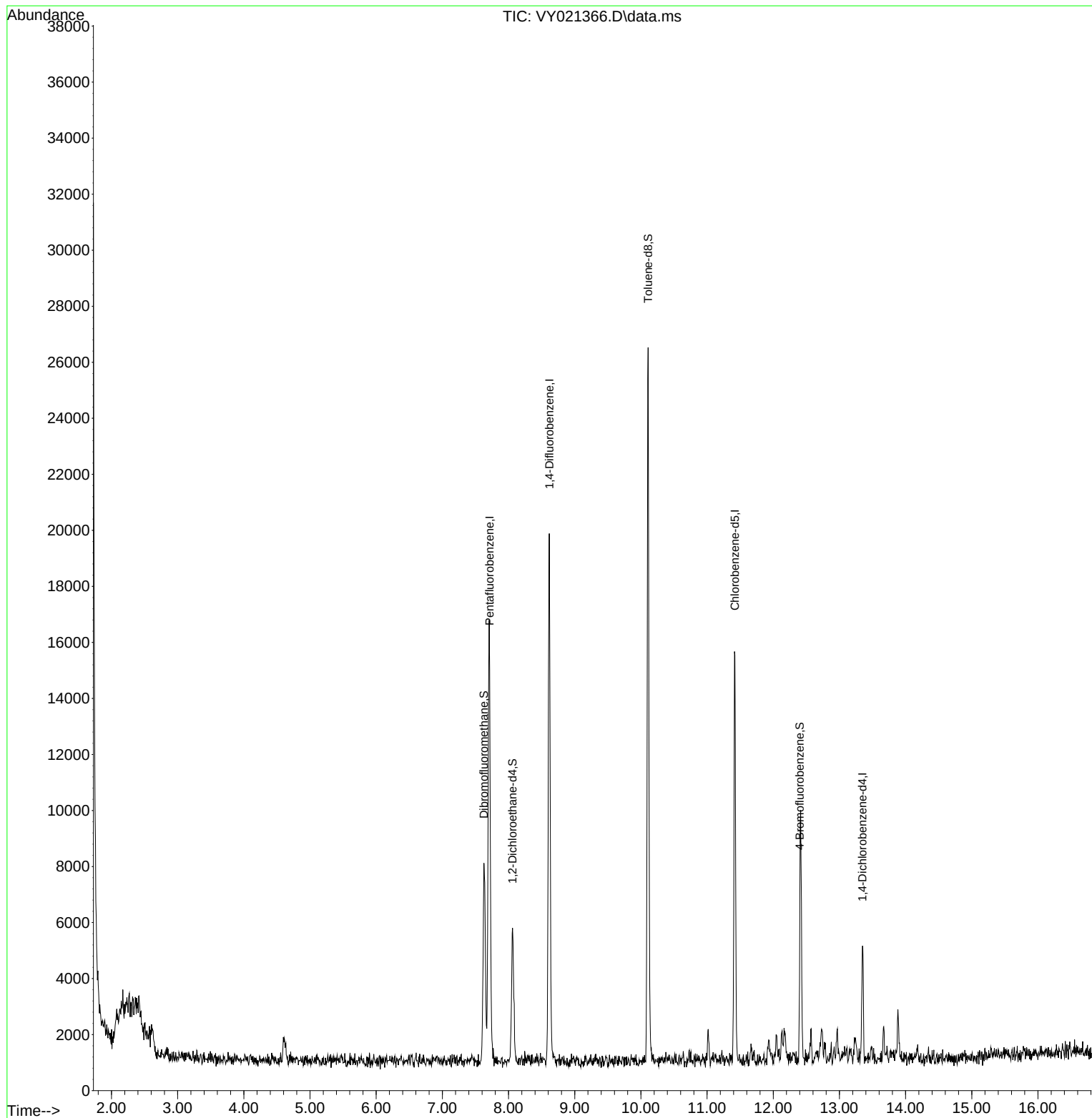
Target Compounds	Qvalue

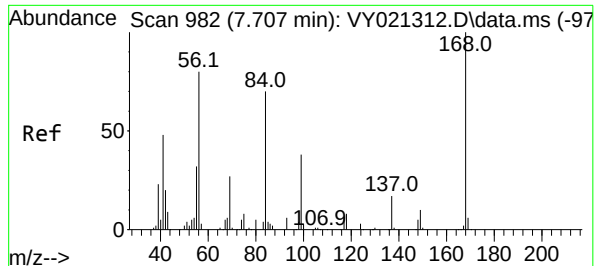
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021366.D
Acq On : 27 Feb 2025 18:19
Operator : SY/MD
Sample : Q1448-01
Misc : 6.54g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 23 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PSP1

Quant Time: Feb 28 00:44:02 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

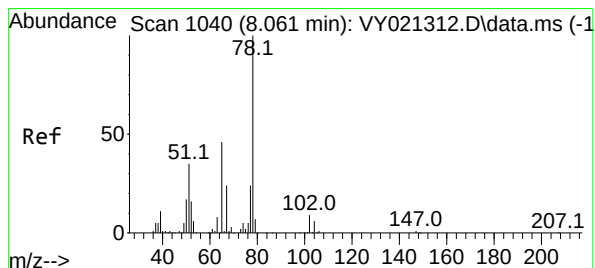
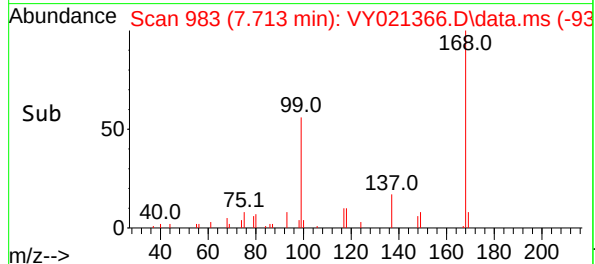
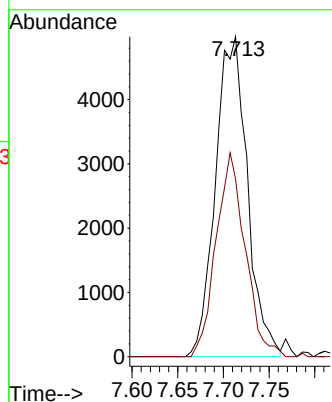
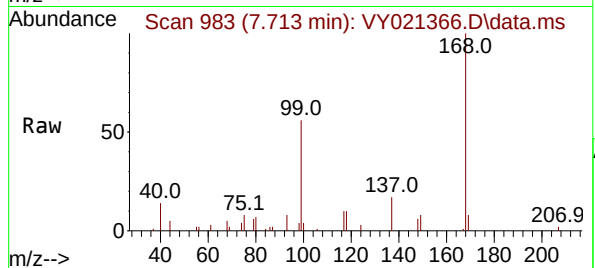




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 982
Delta R.T. 0.006 min
Lab File: VY021366.D
Acq: 27 Feb 2025 18:19

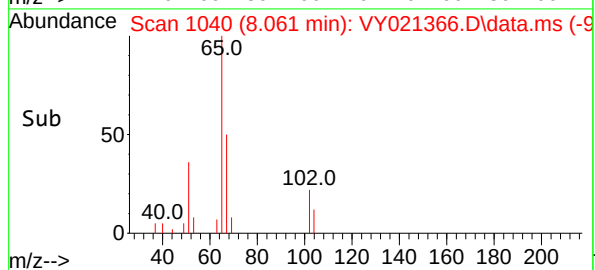
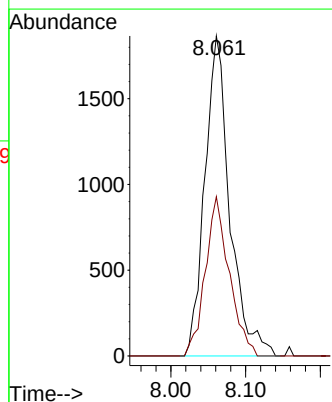
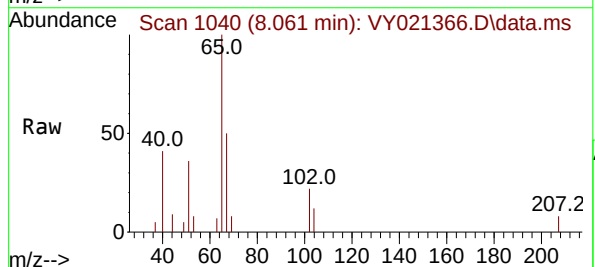
Instrument :
MSVOA_Y
ClientSampleId :
PSP1

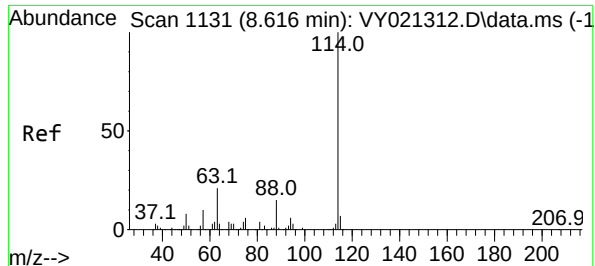
Tgt Ion:168 Resp: 12088
Ion Ratio Lower Upper
168 100
99 55.5 47.1 70.7



#33
1,2-Dichloroethane-d4
Concen: 31.511 ug/l
RT: 8.061 min Scan# 1040
Delta R.T. 0.000 min
Lab File: VY021366.D
Acq: 27 Feb 2025 18:19

Tgt Ion: 65 Resp: 4321
Ion Ratio Lower Upper
65 100
67 47.8 0.0 103.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VY021366.D

Acq: 27 Feb 2025 18:19

Instrument :

MSVOA_Y

ClientSampleId :

PSP1

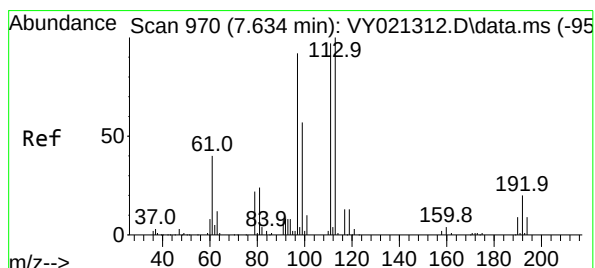
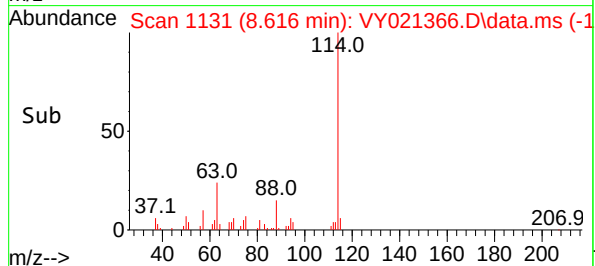
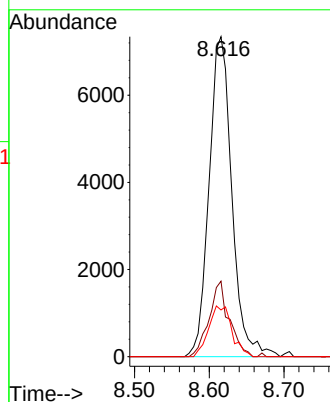
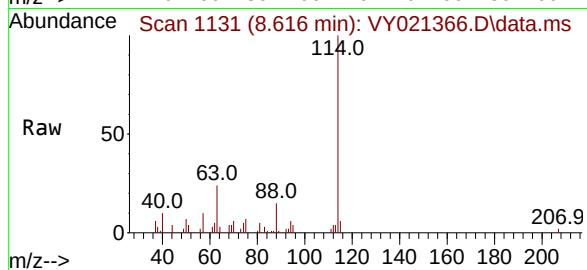
Tgt Ion:114 Resp: 15555

Ion Ratio Lower Upper

114 100

63 23.6 0.0 42.2

88 14.6 0.0 29.8



#35

Dibromofluoromethane

Concen: 51.412 ug/l

RT: 7.628 min Scan# 969

Delta R.T. -0.006 min

Lab File: VY021366.D

Acq: 27 Feb 2025 18:19

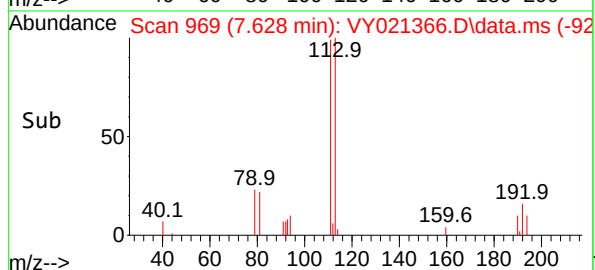
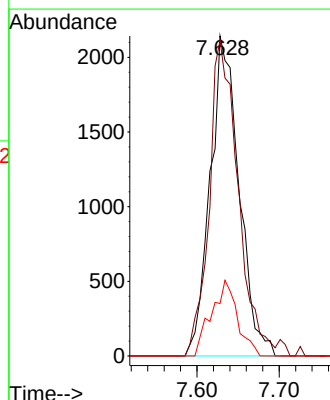
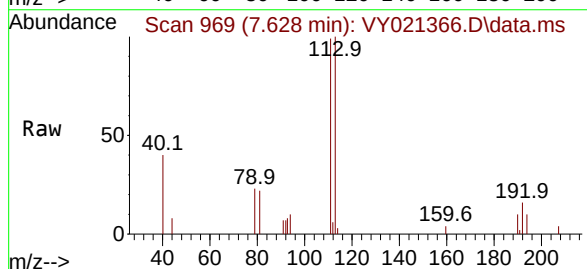
Tgt Ion:113 Resp: 5243

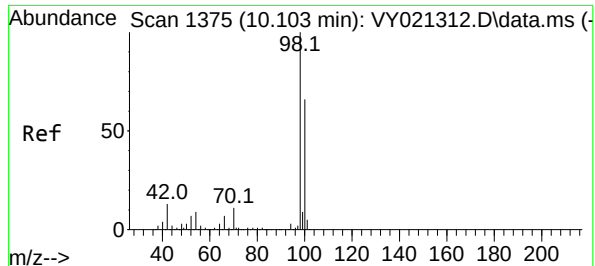
Ion Ratio Lower Upper

113 100

111 98.2 81.0 121.6

192 21.2 15.8 23.8





#50

Toluene-d8

Concen: 41.388 ug/l

RT: 10.109 min Scan# 1

Delta R.T. 0.006 min

Lab File: VY021366.D

Acq: 27 Feb 2025 18:19

Instrument :

MSVOA_Y

ClientSampleId :

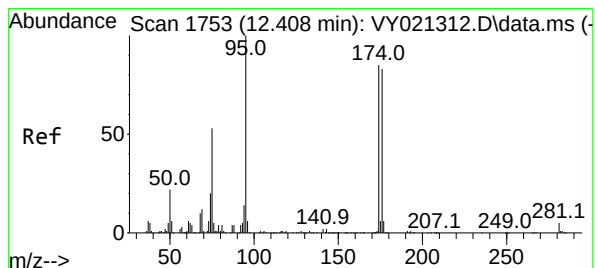
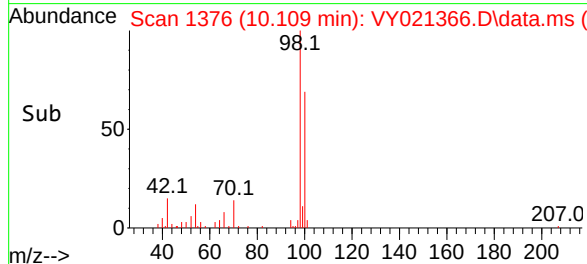
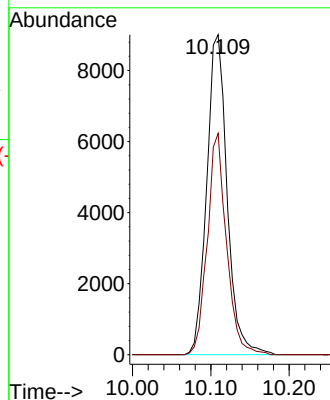
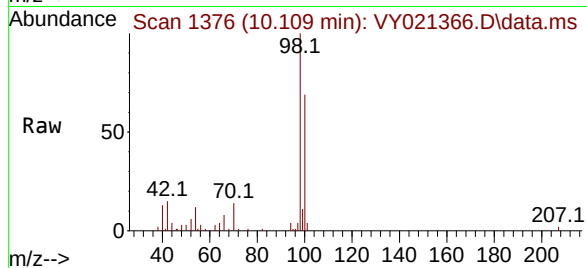
PSP1

Tgt Ion: 98 Resp: 16312

Ion Ratio Lower Upper

98 100

100 64.9 52.4 78.6



#62

4-Bromofluorobenzene

Concen: 16.194 ug/l

RT: 12.402 min Scan# 1752

Delta R.T. -0.006 min

Lab File: VY021366.D

Acq: 27 Feb 2025 18:19

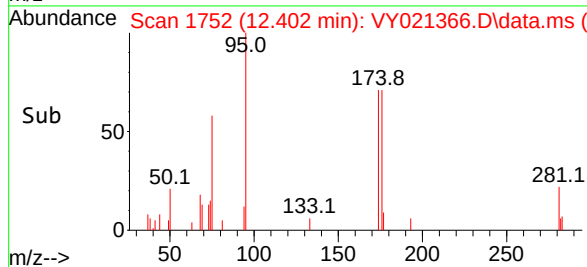
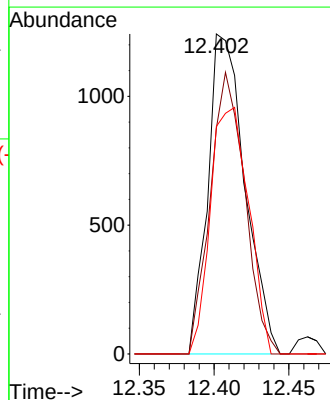
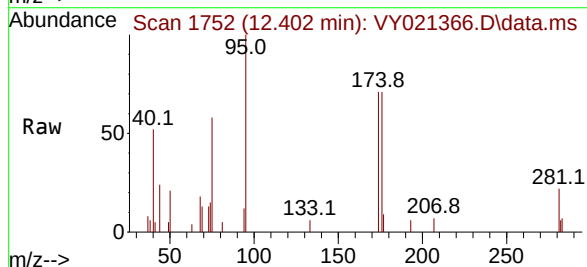
Tgt Ion: 95 Resp: 2148

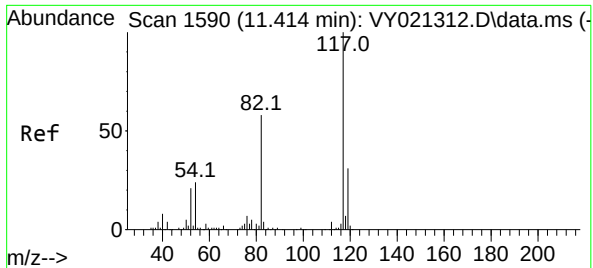
Ion Ratio Lower Upper

95 100

174 82.1 0.0 168.0

176 79.2 0.0 162.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY021366.D

Acq: 27 Feb 2025 18:19

Instrument :

MSVOA_Y

ClientSampleId :

PSP1

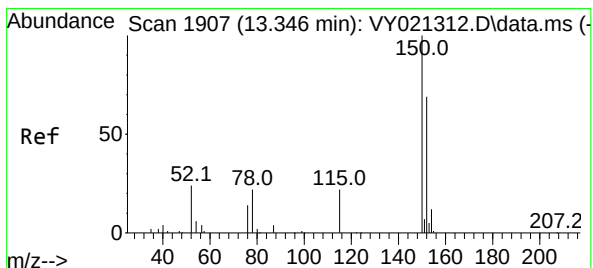
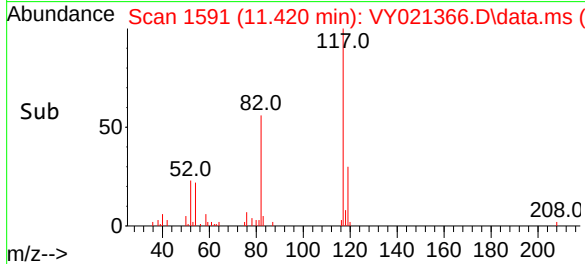
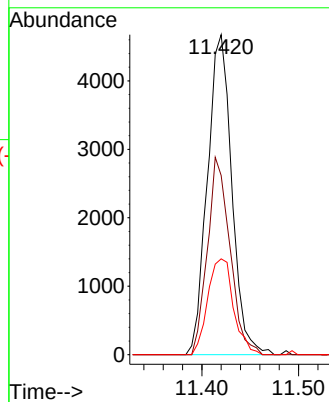
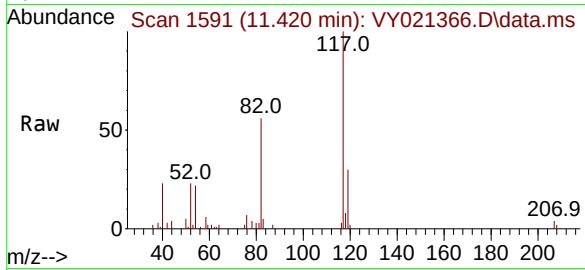
Tgt Ion:117 Resp: 8208

Ion Ratio Lower Upper

117 100

82 56.0 46.2 69.4

119 29.9 24.9 37.3



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.346 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY021366.D

Acq: 27 Feb 2025 18:19

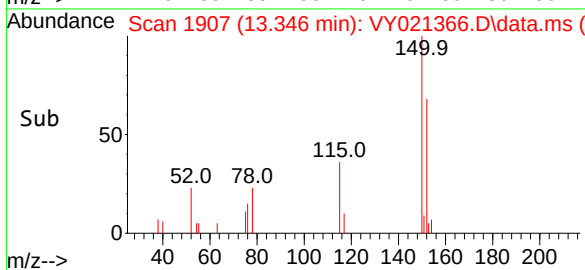
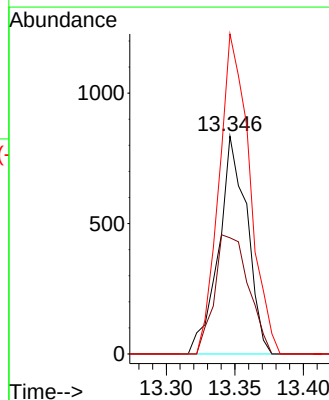
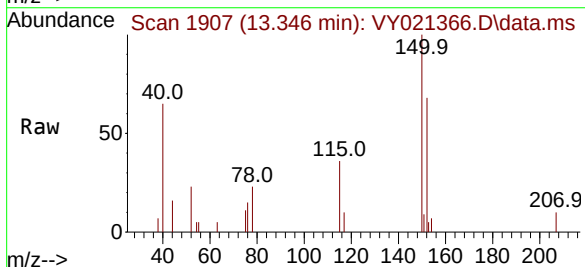
Tgt Ion:152 Resp: 1197

Ion Ratio Lower Upper

152 100

115 65.9 29.3 88.0

150 158.9 0.0 347.4



Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	PSP1RE	SDG No.:	Q1448
Lab Sample ID:	Q1448-01RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.2
Sample Wt/Vol:	5.67 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021382.D	1		02/28/25 15:55	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1.10	U	1.10	4.90	ug/Kg
75-01-4	Vinyl Chloride	0.76	U	0.76	4.90	ug/Kg
74-83-9	Bromomethane	1.00	U	1.00	4.90	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	4.90	ug/Kg
75-65-0	Tert butyl alcohol	15.4	U	15.4	24.7	ug/Kg
75-35-4	1,1-Dichloroethene	0.77	U	0.77	4.90	ug/Kg
67-64-1	Acetone	6.20	U	6.20	24.7	ug/Kg
75-15-0	Carbon Disulfide	1.30	U	1.30	4.90	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.66	U	0.66	4.90	ug/Kg
75-09-2	Methylene Chloride	3.40	U	3.40	9.90	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.83	U	0.83	4.90	ug/Kg
75-34-3	1,1-Dichloroethane	0.62	U	0.62	4.90	ug/Kg
78-93-3	2-Butanone	5.60	U	5.60	24.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.86	U	0.86	4.90	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.60	U	0.60	4.90	ug/Kg
67-66-3	Chloroform	0.66	U	0.66	4.90	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.77	U	0.77	4.90	ug/Kg
71-43-2	Benzene	0.71	U	0.71	4.90	ug/Kg
107-06-2	1,2-Dichloroethane	0.60	U	0.60	4.90	ug/Kg
79-01-6	Trichloroethene	0.74	U	0.74	4.90	ug/Kg
78-87-5	1,2-Dichloropropane	0.65	U	0.65	4.90	ug/Kg
75-27-4	Bromodichloromethane	0.55	U	0.55	4.90	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.30	U	4.30	24.7	ug/Kg
108-88-3	Toluene	0.66	U	0.66	4.90	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.59	U	0.59	4.90	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.56	U	0.56	4.90	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.83	U	0.83	4.90	ug/Kg
591-78-6	2-Hexanone	4.70	U	4.70	24.7	ug/Kg
124-48-1	Dibromochloromethane	0.64	U	0.64	4.90	ug/Kg
127-18-4	Tetrachloroethene	0.88	U	0.88	4.90	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	PSP1RE	SDG No.:	Q1448
Lab Sample ID:	Q1448-01RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.2
Sample Wt/Vol:	5.67 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021382.D	1		02/28/25 15:55	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.73	U	0.73	4.90	ug/Kg
100-41-4	Ethyl Benzene	0.61	U	0.61	4.90	ug/Kg
179601-23-1	m/p-Xylenes	1.30	U	1.30	9.90	ug/Kg
95-47-6	o-Xylene	0.69	U	0.69	4.90	ug/Kg
100-42-5	Styrene	0.59	U	0.59	4.90	ug/Kg
75-25-2	Bromoform	0.80	U	0.80	4.90	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	4.90	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.6		70 (63) - 130 (155)	109%	SPK: 50
1868-53-7	Dibromofluoromethane	53.9		70 (70) - 130 (134)	108%	SPK: 50
2037-26-5	Toluene-d8	48.6		70 (74) - 130 (123)	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.8		70 (38) - 130 (136)	84%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	129000	7.707			
540-36-3	1,4-Difluorobenzene	230000	8.616			
3114-55-4	Chlorobenzene-d5	206000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	76900	13.346			

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\VY022825\
 Data File : VY021382.D
 Acq On : 28 Feb 2025 15:55
 Operator : SY/MD
 Sample : Q1448-01RE
 Misc : 5.67g/5.0mL/MSVOA_Y/SOIL/B
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 PSP1RE

Quant Time: Feb 28 22:21:15 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	129382	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	230156	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	205658	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	76917	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	80135	54.598	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	109.200%
35) Dibromofluoromethane	7.634	113	81384	53.935	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	107.880%
50) Toluene-d8	10.103	98	283384	48.595	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	97.180%
62) 4-Bromofluorobenzene	12.408	95	82101	41.833	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	83.660%

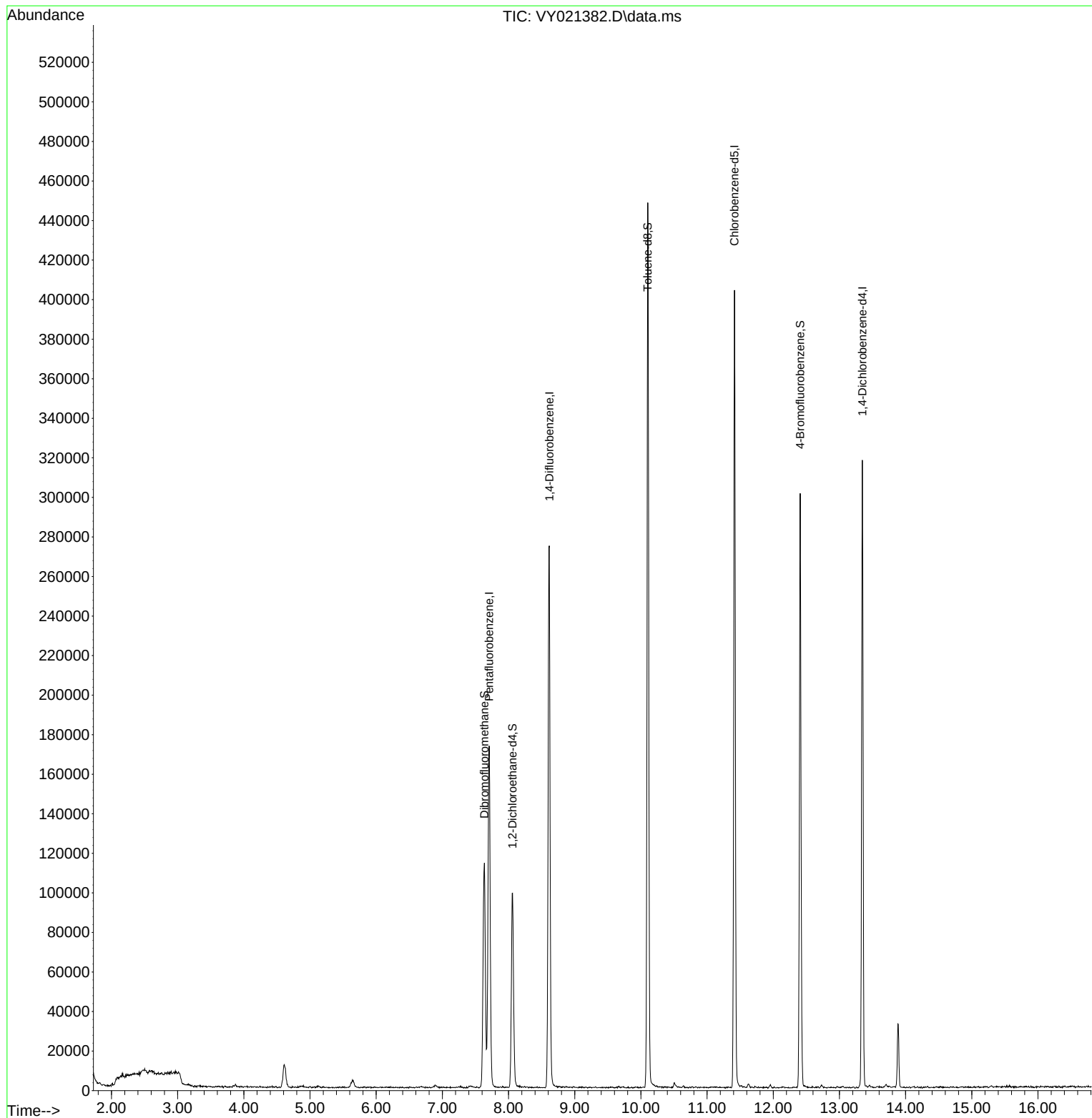
Target Compounds	Qvalue

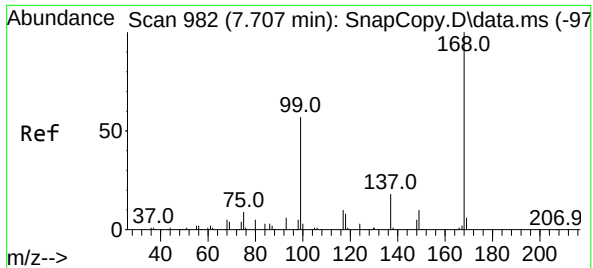
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021382.D
Acq On : 28 Feb 2025 15:55
Operator : SY/MD
Sample : Q1448-01RE
Misc : 5.67g/5.0mL/MSVOA_Y/SOIL/B
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
PSP1RE

Quant Time: Feb 28 22:21:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

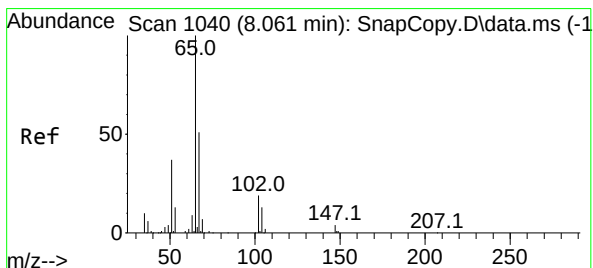
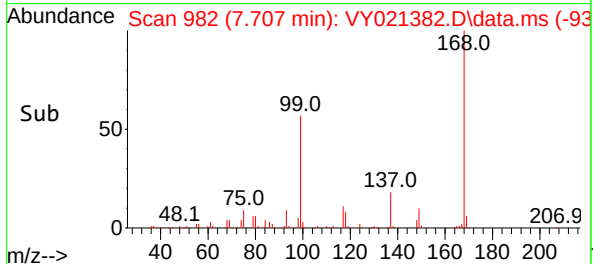
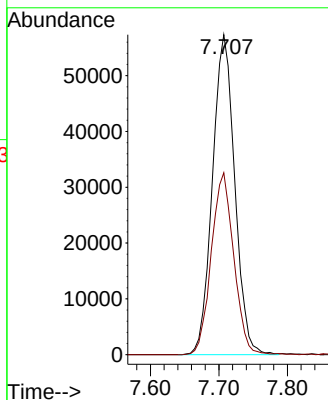
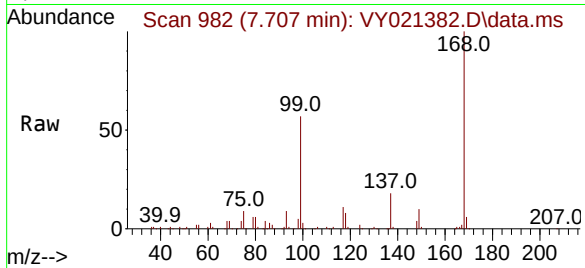




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 91
Delta R.T. 0.000 min
Lab File: VY021382.D
Acq: 28 Feb 2025 15:55

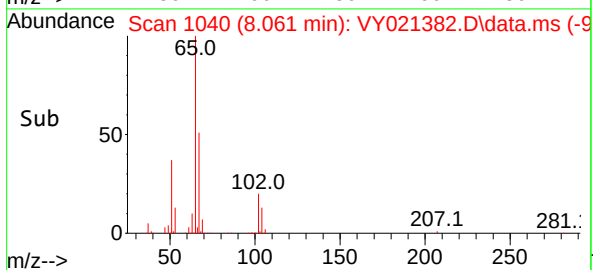
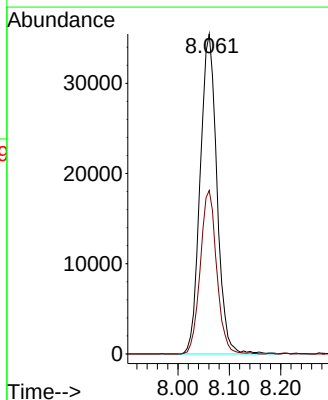
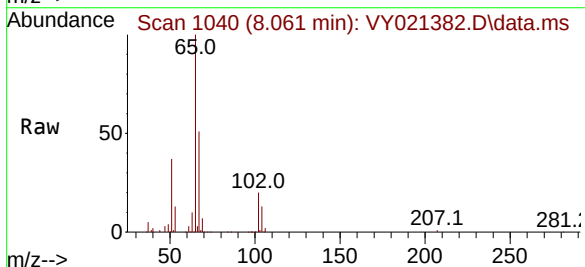
Instrument :
MSVOA_Y
ClientSampleId :
PSP1RE

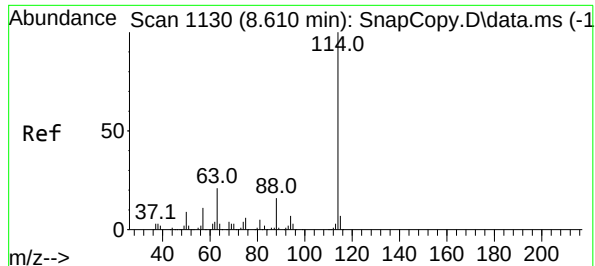
Tgt Ion:168 Resp: 129382
Ion Ratio Lower Upper
168 100
99 56.8 47.1 70.7



#33
1,2-Dichloroethane-d4
Concen: 54.598 ug/l
RT: 8.061 min Scan# 1040
Delta R.T. 0.000 min
Lab File: VY021382.D
Acq: 28 Feb 2025 15:55

Tgt Ion: 65 Resp: 80135
Ion Ratio Lower Upper
65 100
67 50.1 0.0 103.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VY021382.D

Acq: 28 Feb 2025 15:55

Instrument :

MSVOA_Y

ClientSampleId :

PSP1RE

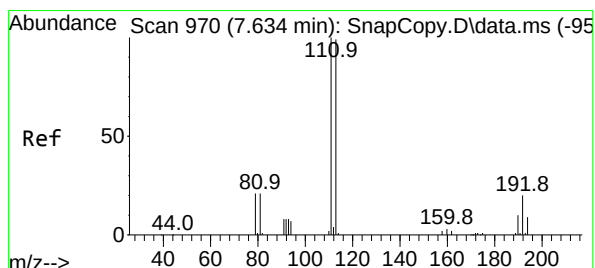
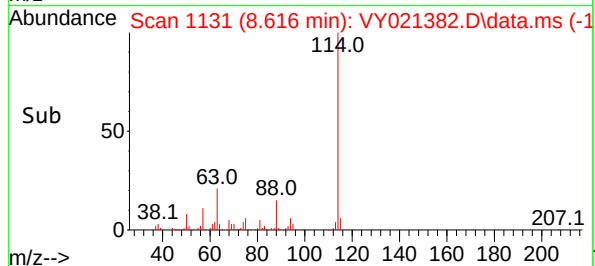
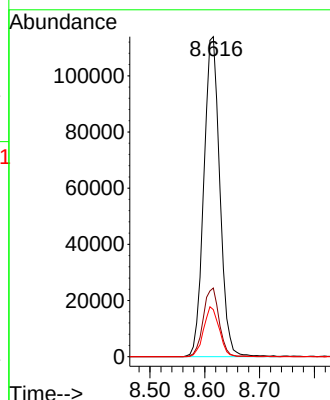
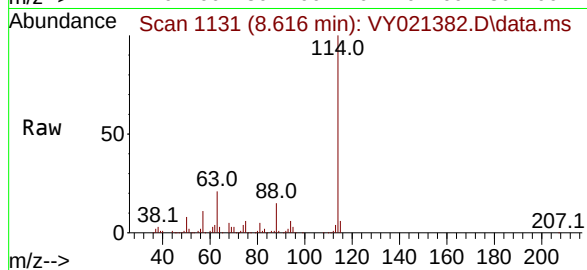
Tgt Ion:114 Resp: 230156

Ion Ratio Lower Upper

114 100

63 21.5 0.0 42.2

88 14.7 0.0 29.8



#35

Dibromofluoromethane

Concen: 53.935 ug/l

RT: 7.634 min Scan# 970

Delta R.T. 0.000 min

Lab File: VY021382.D

Acq: 28 Feb 2025 15:55

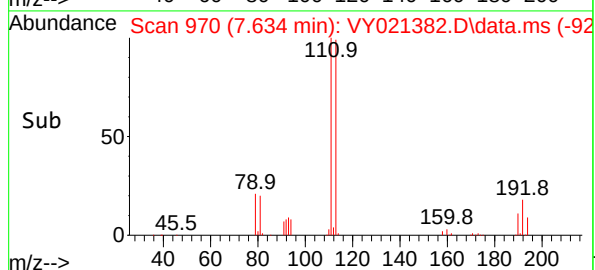
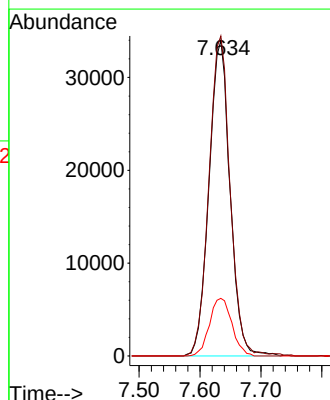
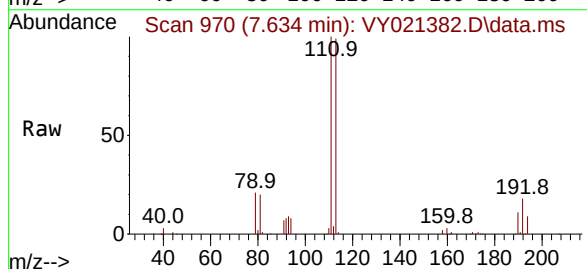
Tgt Ion:113 Resp: 81384

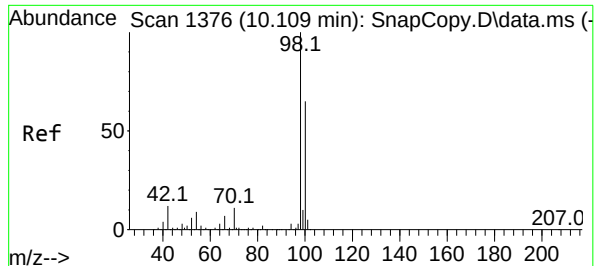
Ion Ratio Lower Upper

113 100

111 102.0 81.0 121.6

192 19.5 15.8 23.8





#50

Toluene-d8

Concen: 48.595 ug/l

RT: 10.103 min Scan# 1

Delta R.T. 0.000 min

Lab File: VY021382.D

Acq: 28 Feb 2025 15:55

Instrument :

MSVOA_Y

ClientSampleId :

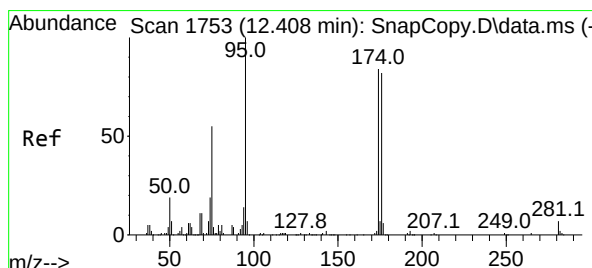
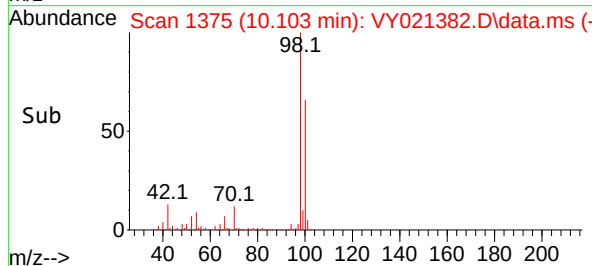
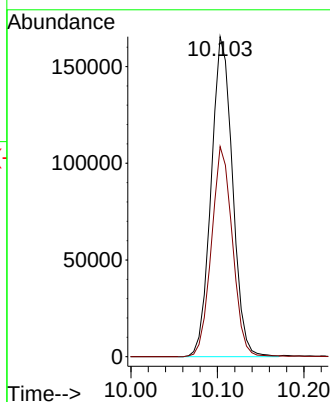
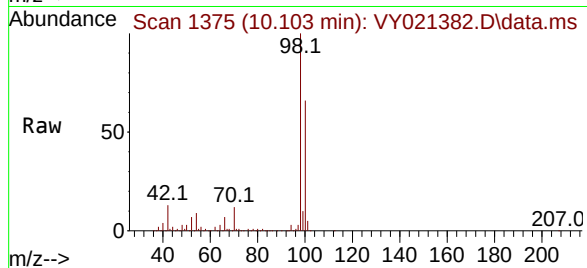
PSP1RE

Tgt Ion: 98 Resp: 283384

Ion Ratio Lower Upper

98 100

100 64.5 52.4 78.6



#62

4-Bromofluorobenzene

Concen: 41.833 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. 0.000 min

Lab File: VY021382.D

Acq: 28 Feb 2025 15:55

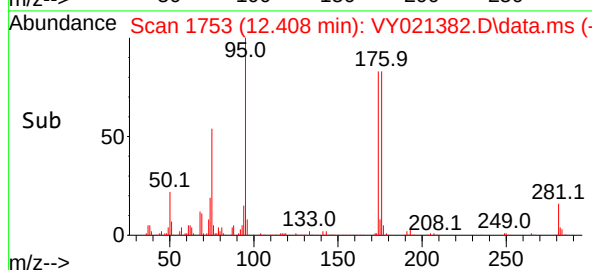
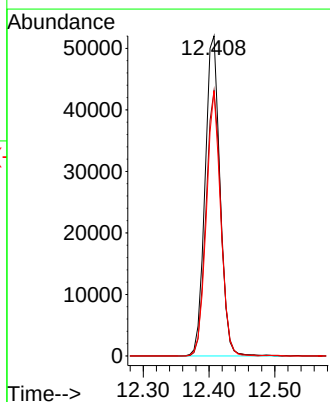
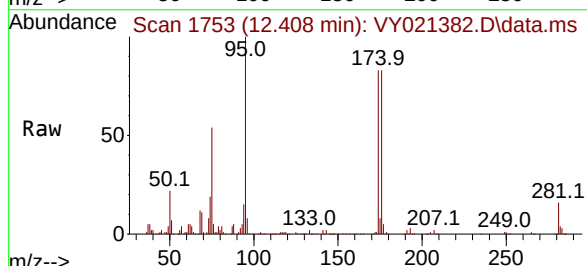
Tgt Ion: 95 Resp: 82101

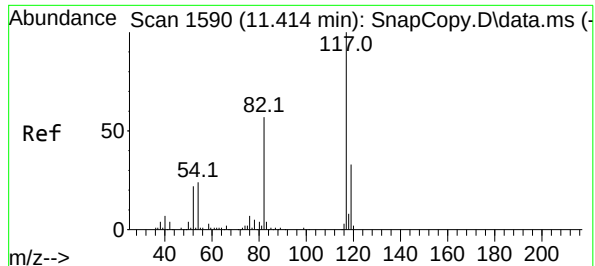
Ion Ratio Lower Upper

95 100

174 83.4 0.0 168.0

176 79.3 0.0 162.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.414 min Scan# 11

Delta R.T. 0.000 min

Lab File: VY021382.D

Acq: 28 Feb 2025 15:55

Instrument :

MSVOA_Y

ClientSampleId :

PSP1RE

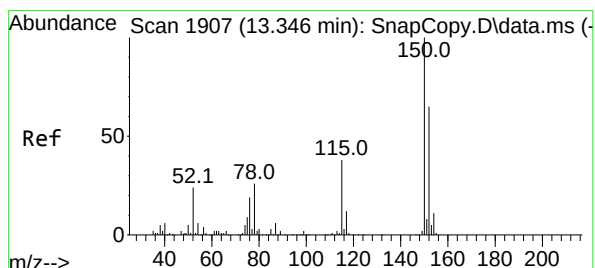
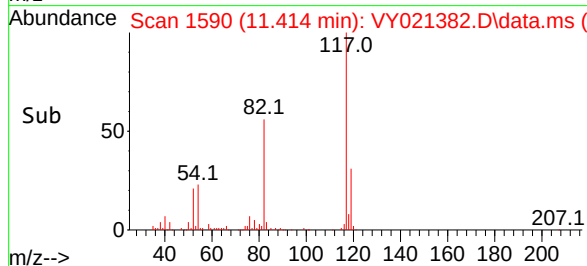
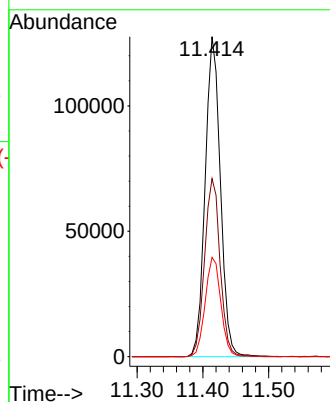
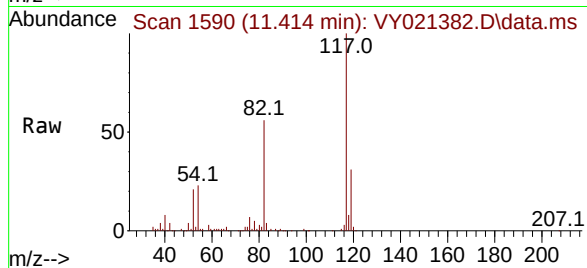
Tgt Ion:117 Resp: 205658

Ion Ratio Lower Upper

117 100

82 55.7 46.2 69.4

119 31.0 24.9 37.3



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.346 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY021382.D

Acq: 28 Feb 2025 15:55

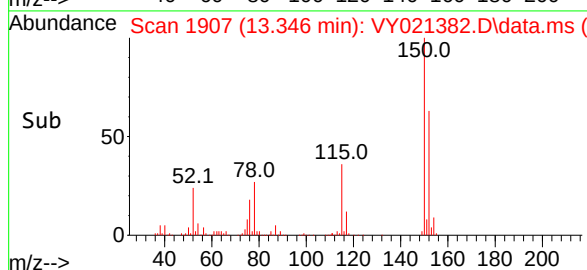
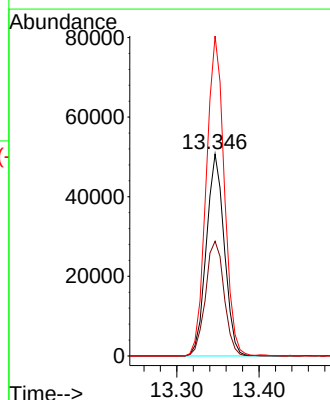
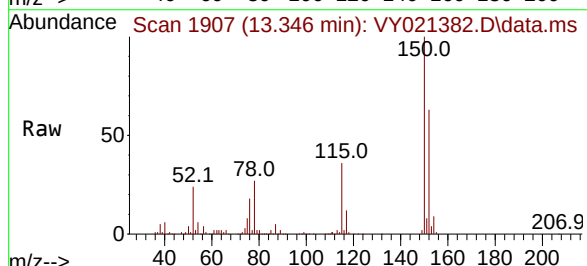
Tgt Ion:152 Resp: 76917

Ion Ratio Lower Upper

152 100

115 58.9 29.3 88.0

150 158.5 0.0 347.4



Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P1	SDG No.:	Q1448
Lab Sample ID:	Q1448-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	6.87	Units: g	Final Vol: 5000 uL
Soil Aliquot Vol:		uL	Test: VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level : LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021367.D	1		02/27/25 18:42	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	0.95	U	0.95	4.10	ug/Kg
75-01-4	Vinyl Chloride	0.63	U	0.63	4.10	ug/Kg
74-83-9	Bromomethane	0.84	U	0.84	4.10	ug/Kg
75-00-3	Chloroethane	0.82	U	0.82	4.10	ug/Kg
75-65-0	Tert butyl alcohol	12.7	U	12.7	20.4	ug/Kg
75-35-4	1,1-Dichloroethene	0.64	U	0.64	4.10	ug/Kg
67-64-1	Acetone	5.10	U	5.10	20.4	ug/Kg
75-15-0	Carbon Disulfide	1.00	U	1.00	4.10	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.55	U	0.55	4.10	ug/Kg
75-09-2	Methylene Chloride	2.80	U	2.80	8.20	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.68	U	0.68	4.10	ug/Kg
75-34-3	1,1-Dichloroethane	0.51	U	0.51	4.10	ug/Kg
78-93-3	2-Butanone	4.60	U	4.60	20.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.71	U	0.71	4.10	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	4.10	ug/Kg
67-66-3	Chloroform	0.55	U	0.55	4.10	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.64	U	0.64	4.10	ug/Kg
71-43-2	Benzene	0.59	U	0.59	4.10	ug/Kg
107-06-2	1,2-Dichloroethane	0.50	U	0.50	4.10	ug/Kg
79-01-6	Trichloroethene	0.61	U	0.61	4.10	ug/Kg
78-87-5	1,2-Dichloropropane	0.54	U	0.54	4.10	ug/Kg
75-27-4	Bromodichloromethane	0.46	U	0.46	4.10	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.50	U	3.50	20.4	ug/Kg
108-88-3	Toluene	0.55	U	0.55	4.10	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.49	U	0.49	4.10	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.46	U	0.46	4.10	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.68	U	0.68	4.10	ug/Kg
591-78-6	2-Hexanone	3.90	U	3.90	20.4	ug/Kg
124-48-1	Dibromochloromethane	0.53	U	0.53	4.10	ug/Kg
127-18-4	Tetrachloroethene	0.73	U	0.73	4.10	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P1	SDG No.:	Q1448
Lab Sample ID:	Q1448-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	6.87 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021367.D	1		02/27/25 18:42	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.60	U	0.60	4.10	ug/Kg
100-41-4	Ethyl Benzene	0.51	U	0.51	4.10	ug/Kg
179601-23-1	m/p-Xylenes	1.10	U	1.10	8.20	ug/Kg
95-47-6	o-Xylene	0.57	U	0.57	4.10	ug/Kg
100-42-5	Styrene	0.49	U	0.49	4.10	ug/Kg
75-25-2	Bromoform	0.66	U	0.66	4.10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.90	U	0.90	4.10	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.4		70 (63) - 130 (155)	115%	SPK: 50
1868-53-7	Dibromofluoromethane	54.1		70 (70) - 130 (134)	108%	SPK: 50
2037-26-5	Toluene-d8	47.2		70 (74) - 130 (123)	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.6		70 (38) - 130 (136)	81%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	108000	7.707			
540-36-3	1,4-Difluorobenzene	191000	8.616			
3114-55-4	Chlorobenzene-d5	167000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	61000	13.347			

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\VY022725\
 Data File : VY021367.D
 Acq On : 27 Feb 2025 18:42
 Operator : SY/MD
 Sample : Q1448-02
 Misc : 6.87g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 24 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 P1

Quant Time: Feb 28 00:44:14 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	108147	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	190726	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	166640	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	61007	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	70394	57.379	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	114.760%
35) Dibromofluoromethane	7.634	113	67607	54.068	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	108.140%
50) Toluene-d8	10.103	98	228043	47.189	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	94.380%
62) 4-Bromofluorobenzene	12.408	95	66052	40.613	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	81.220%

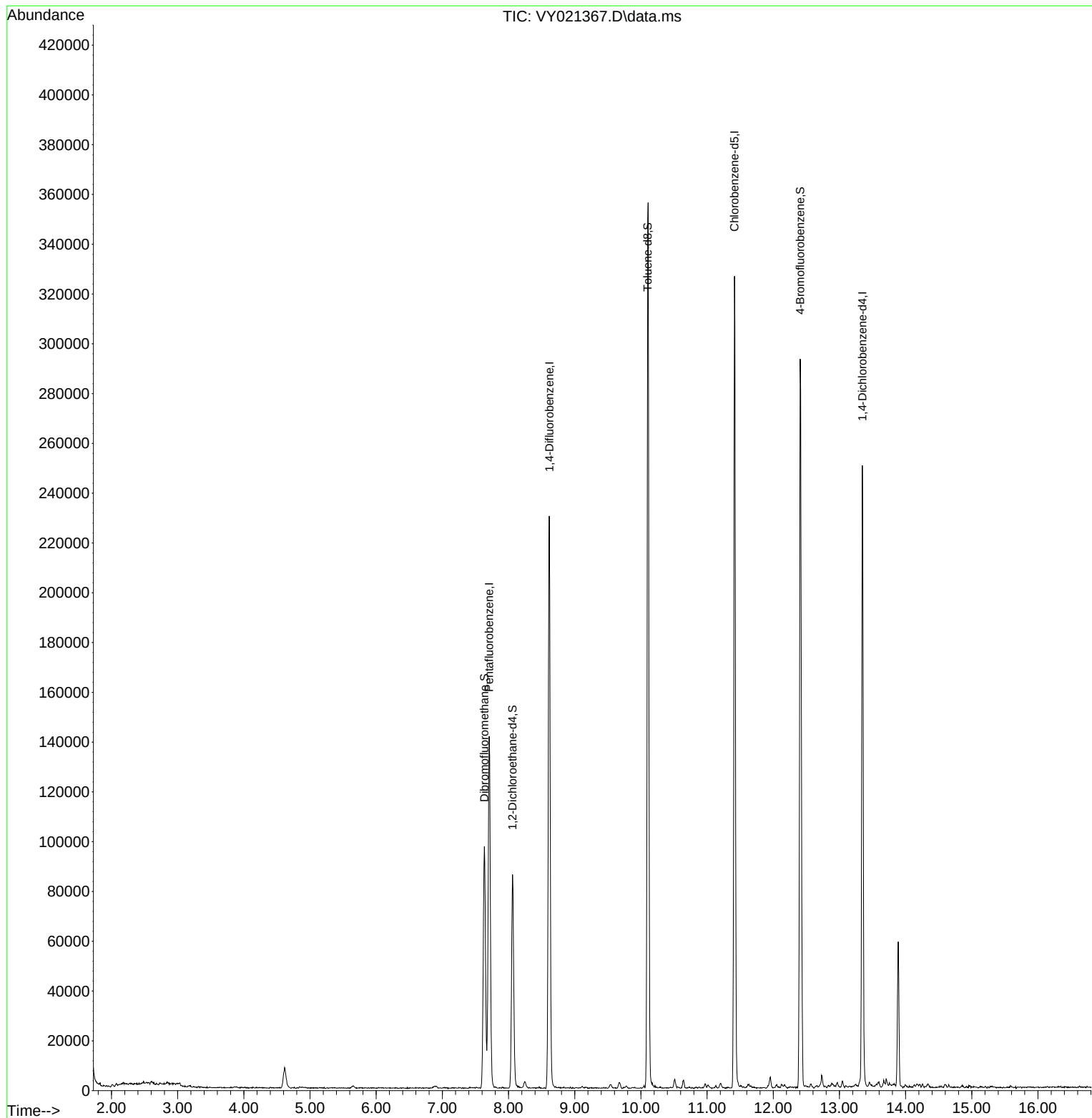
Target Compounds	Qvalue

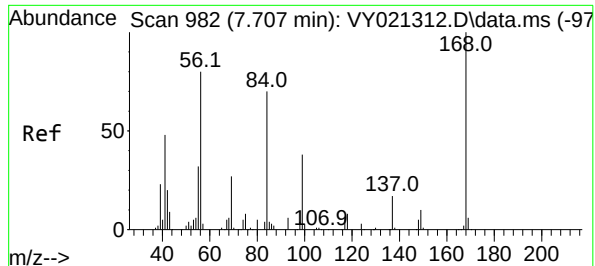
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021367.D
Acq On : 27 Feb 2025 18:42
Operator : SY/MD
Sample : Q1448-02
Misc : 6.87g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P1

Quant Time: Feb 28 00:44:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

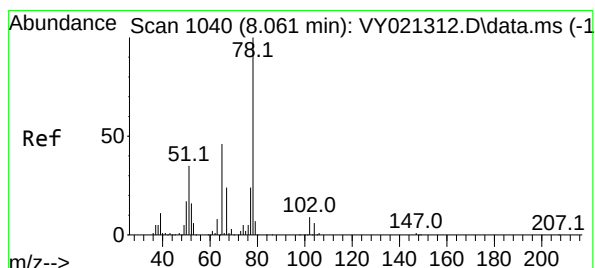
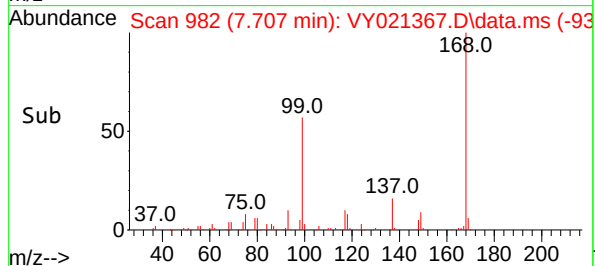
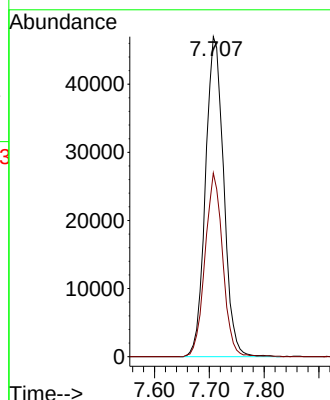
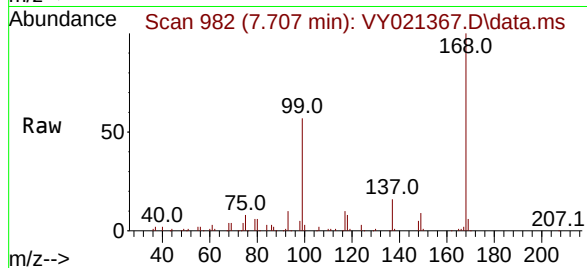




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 982
Delta R.T. 0.000 min
Lab File: VY021367.D
Acq: 27 Feb 2025 18:42

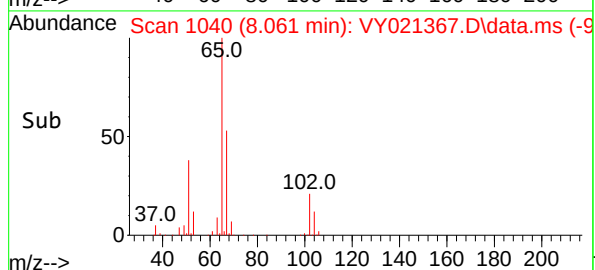
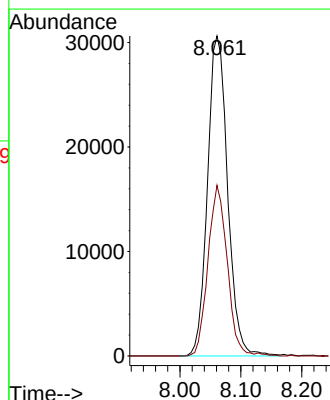
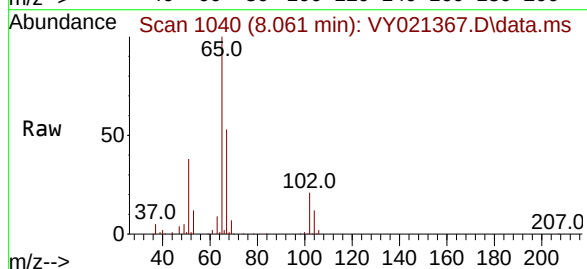
Instrument :
MSVOA_Y
ClientSampleId :
P1

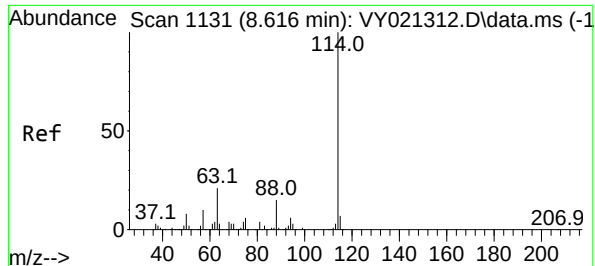
Tgt Ion:168 Resp: 108147
Ion Ratio Lower Upper
168 100
99 57.4 47.1 70.7



#33
1,2-Dichloroethane-d4
Concen: 57.379 ug/l
RT: 8.061 min Scan# 1040
Delta R.T. 0.000 min
Lab File: VY021367.D
Acq: 27 Feb 2025 18:42

Tgt Ion: 65 Resp: 70394
Ion Ratio Lower Upper
65 100
67 51.3 0.0 103.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VY021367.D

Acq: 27 Feb 2025 18:42

Instrument :

MSVOA_Y

ClientSampleId :

P1

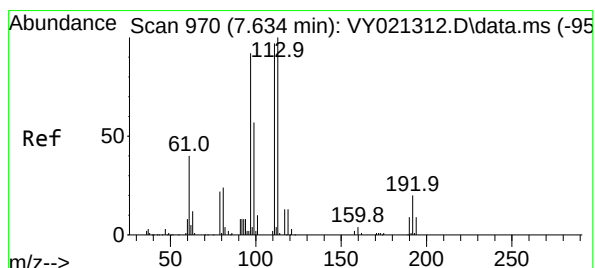
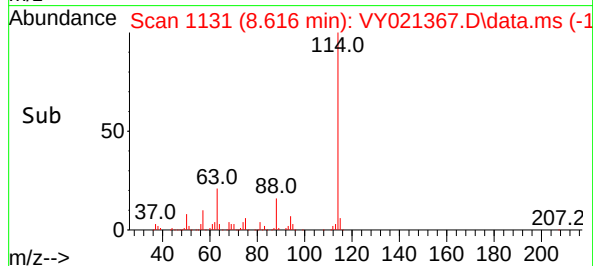
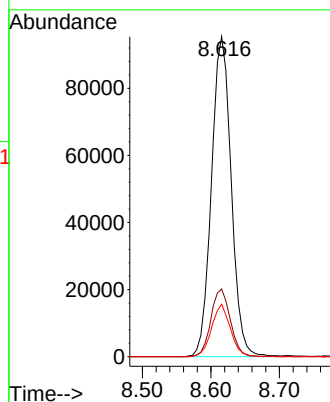
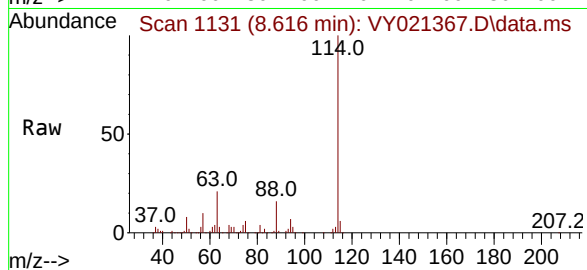
Tgt Ion:114 Resp: 190726

Ion Ratio Lower Upper

114 100

63 21.1 0.0 42.2

88 16.4 0.0 29.8



#35

Dibromofluoromethane

Concen: 54.068 ug/l

RT: 7.634 min Scan# 970

Delta R.T. 0.000 min

Lab File: VY021367.D

Acq: 27 Feb 2025 18:42

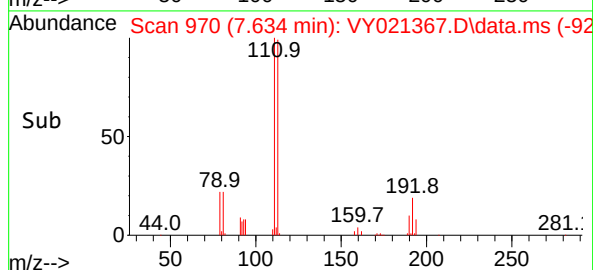
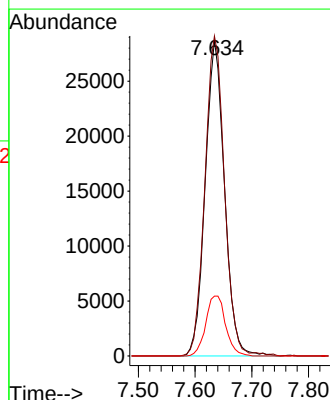
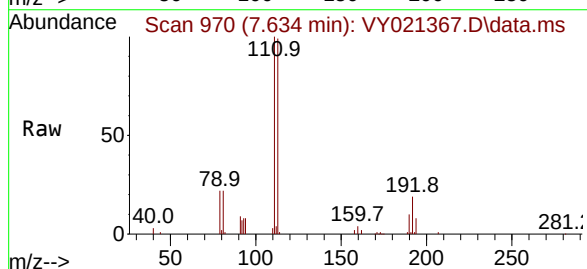
Tgt Ion:113 Resp: 67607

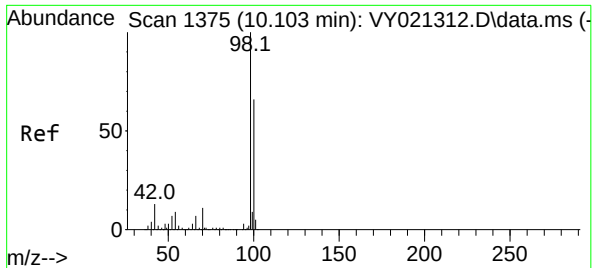
Ion Ratio Lower Upper

113 100

111 103.3 81.0 121.6

192 19.6 15.8 23.8





#50

Toluene-d8

Concen: 47.189 ug/l

RT: 10.103 min Scan# 1375

Delta R.T. 0.000 min

Lab File: VY021367.D

Acq: 27 Feb 2025 18:42

Instrument :

MSVOA_Y

ClientSampleId :

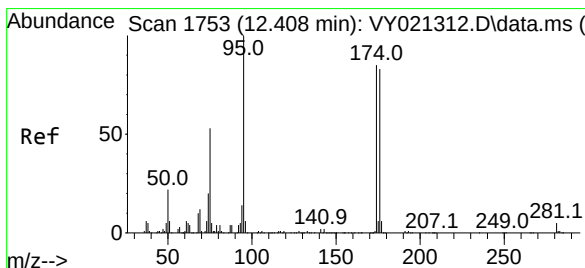
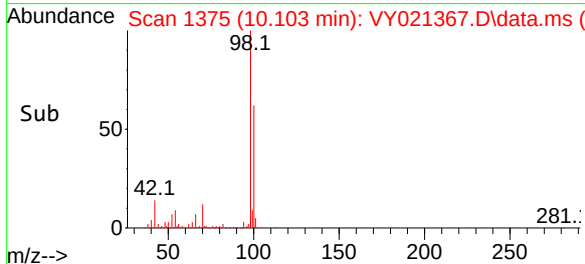
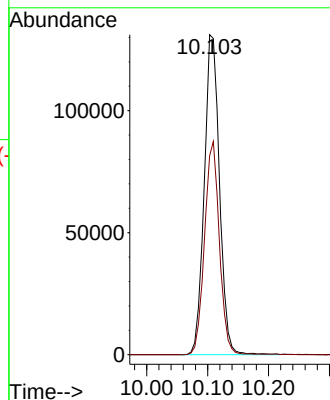
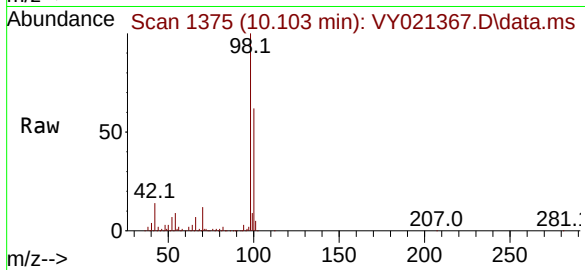
P1

Tgt Ion: 98 Resp: 228043

Ion Ratio Lower Upper

98 100

100 64.9 52.4 78.6



#62

4-Bromofluorobenzene

Concen: 40.613 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. 0.000 min

Lab File: VY021367.D

Acq: 27 Feb 2025 18:42

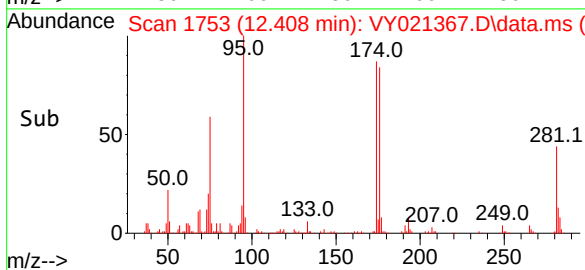
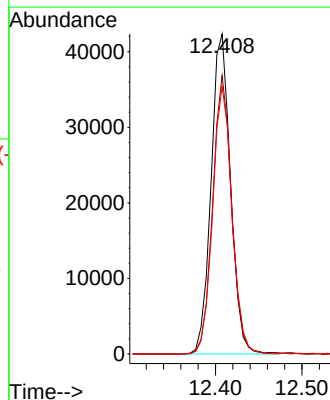
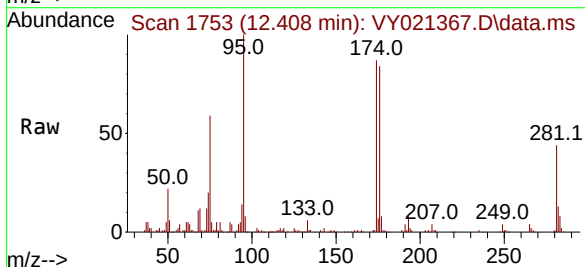
Tgt Ion: 95 Resp: 66052

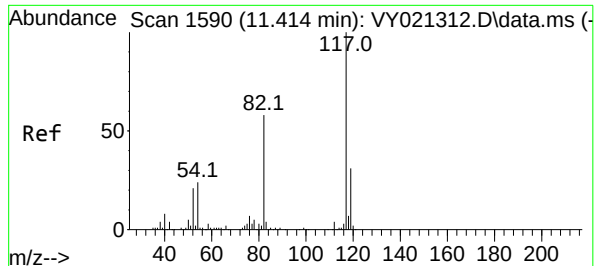
Ion Ratio Lower Upper

95 100

174 84.7 0.0 168.0

176 82.8 0.0 162.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.414 min Scan# 1590

Delta R.T. 0.000 min

Lab File: VY021367.D

Acq: 27 Feb 2025 18:42

Instrument :

MSVOA_Y

ClientSampleId :

P1

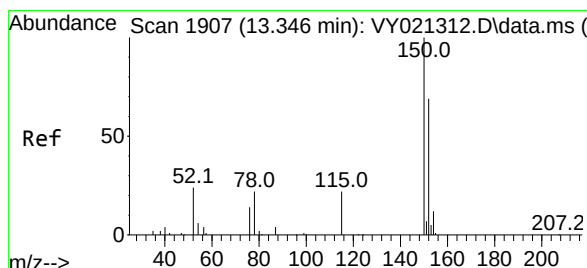
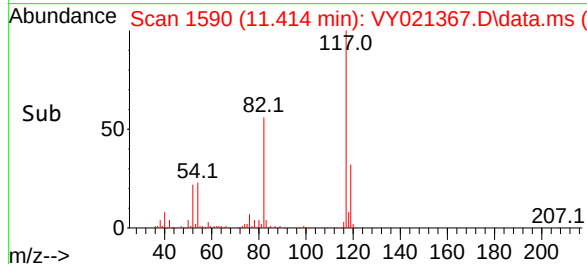
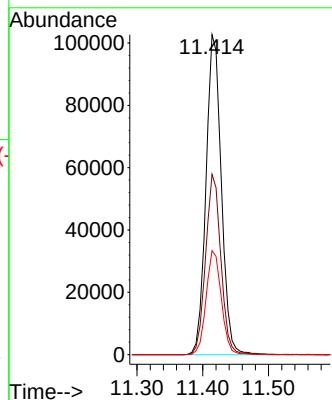
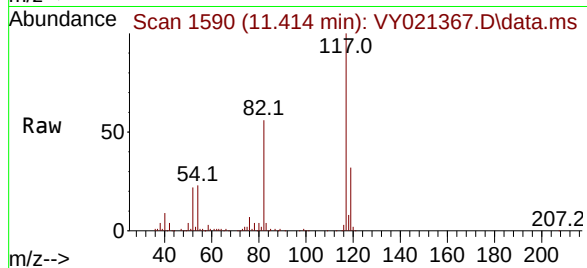
Tgt Ion:117 Resp: 166640

Ion Ratio Lower Upper

117 100

82 56.4 46.2 69.4

119 32.5 24.9 37.3



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.347 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY021367.D

Acq: 27 Feb 2025 18:42

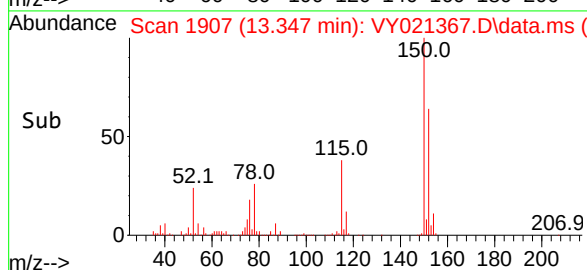
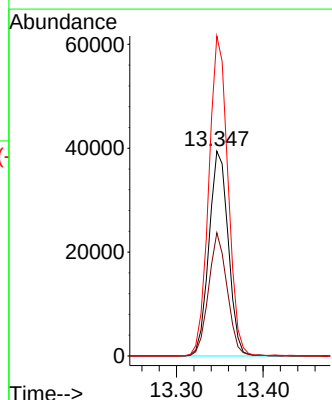
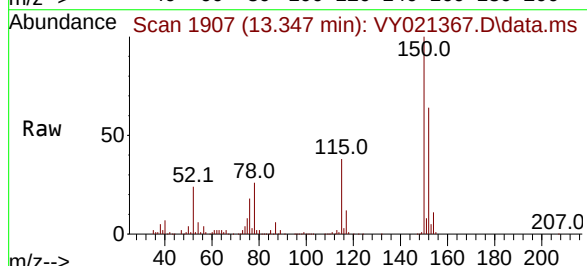
Tgt Ion:152 Resp: 61007

Ion Ratio Lower Upper

152 100

115 58.1 29.3 88.0

150 154.9 0.0 347.4



Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P1RE	SDG No.:	Q1448
Lab Sample ID:	Q1448-02RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	6.87	Units: g	Final Vol: 5000 uL
Soil Aliquot Vol:		uL	Test: VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level : LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021383.D	1		02/28/25 16:18	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	0.95	U	0.95	4.10	ug/Kg
75-01-4	Vinyl Chloride	0.63	U	0.63	4.10	ug/Kg
74-83-9	Bromomethane	0.84	U	0.84	4.10	ug/Kg
75-00-3	Chloroethane	0.82	U	0.82	4.10	ug/Kg
75-65-0	Tert butyl alcohol	12.7	U	12.7	20.4	ug/Kg
75-35-4	1,1-Dichloroethene	0.64	U	0.64	4.10	ug/Kg
67-64-1	Acetone	5.10	U	5.10	20.4	ug/Kg
75-15-0	Carbon Disulfide	1.00	U	1.00	4.10	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.55	U	0.55	4.10	ug/Kg
75-09-2	Methylene Chloride	2.80	U	2.80	8.20	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.68	U	0.68	4.10	ug/Kg
75-34-3	1,1-Dichloroethane	0.51	U	0.51	4.10	ug/Kg
78-93-3	2-Butanone	4.60	U	4.60	20.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.71	U	0.71	4.10	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	4.10	ug/Kg
67-66-3	Chloroform	0.55	U	0.55	4.10	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.64	U	0.64	4.10	ug/Kg
71-43-2	Benzene	0.59	U	0.59	4.10	ug/Kg
107-06-2	1,2-Dichloroethane	0.50	U	0.50	4.10	ug/Kg
79-01-6	Trichloroethene	0.61	U	0.61	4.10	ug/Kg
78-87-5	1,2-Dichloropropane	0.54	U	0.54	4.10	ug/Kg
75-27-4	Bromodichloromethane	0.46	U	0.46	4.10	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.50	U	3.50	20.4	ug/Kg
108-88-3	Toluene	0.55	U	0.55	4.10	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.49	U	0.49	4.10	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.46	U	0.46	4.10	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.68	U	0.68	4.10	ug/Kg
591-78-6	2-Hexanone	3.90	U	3.90	20.4	ug/Kg
124-48-1	Dibromochloromethane	0.53	U	0.53	4.10	ug/Kg
127-18-4	Tetrachloroethene	0.73	U	0.73	4.10	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P1RE	SDG No.:	Q1448
Lab Sample ID:	Q1448-02RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	6.87 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021383.D	1		02/28/25 16:18	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.60	U	0.60	4.10	ug/Kg
100-41-4	Ethyl Benzene	0.51	U	0.51	4.10	ug/Kg
179601-23-1	m/p-Xylenes	1.10	U	1.10	8.20	ug/Kg
95-47-6	o-Xylene	0.57	U	0.57	4.10	ug/Kg
100-42-5	Styrene	0.49	U	0.49	4.10	ug/Kg
75-25-2	Bromoform	0.66	U	0.66	4.10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.90	U	0.90	4.10	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	60.6		70 (63) - 130 (155)	121%	SPK: 50
1868-53-7	Dibromofluoromethane	55.3		70 (70) - 130 (134)	111%	SPK: 50
2037-26-5	Toluene-d8	48.0		70 (74) - 130 (123)	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.1		70 (38) - 130 (136)	82%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	129000	7.701			
540-36-3	1,4-Difluorobenzene	235000	8.616			
3114-55-4	Chlorobenzene-d5	210000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	76000	13.346			

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\VY022825\
Data File : VY021383.D
Acq On : 28 Feb 2025 16:18
Operator : SY/MD
Sample : Q1448-02RE
Misc : 6.87g/5.0mL/MSVOA_Y/SOIL/B
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P1RE

Quant Time: Feb 28 22:21:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.701	168	128523	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	234842	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	209615	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	75987	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	88399	60.631	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	121.260%
35) Dibromofluoromethane	7.634	113	85169	55.317	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	110.640%
50) Toluene-d8	10.103	98	285341	47.954	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	95.900%
62) 4-Bromofluorobenzene	12.402	95	82379	41.137	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	82.280%

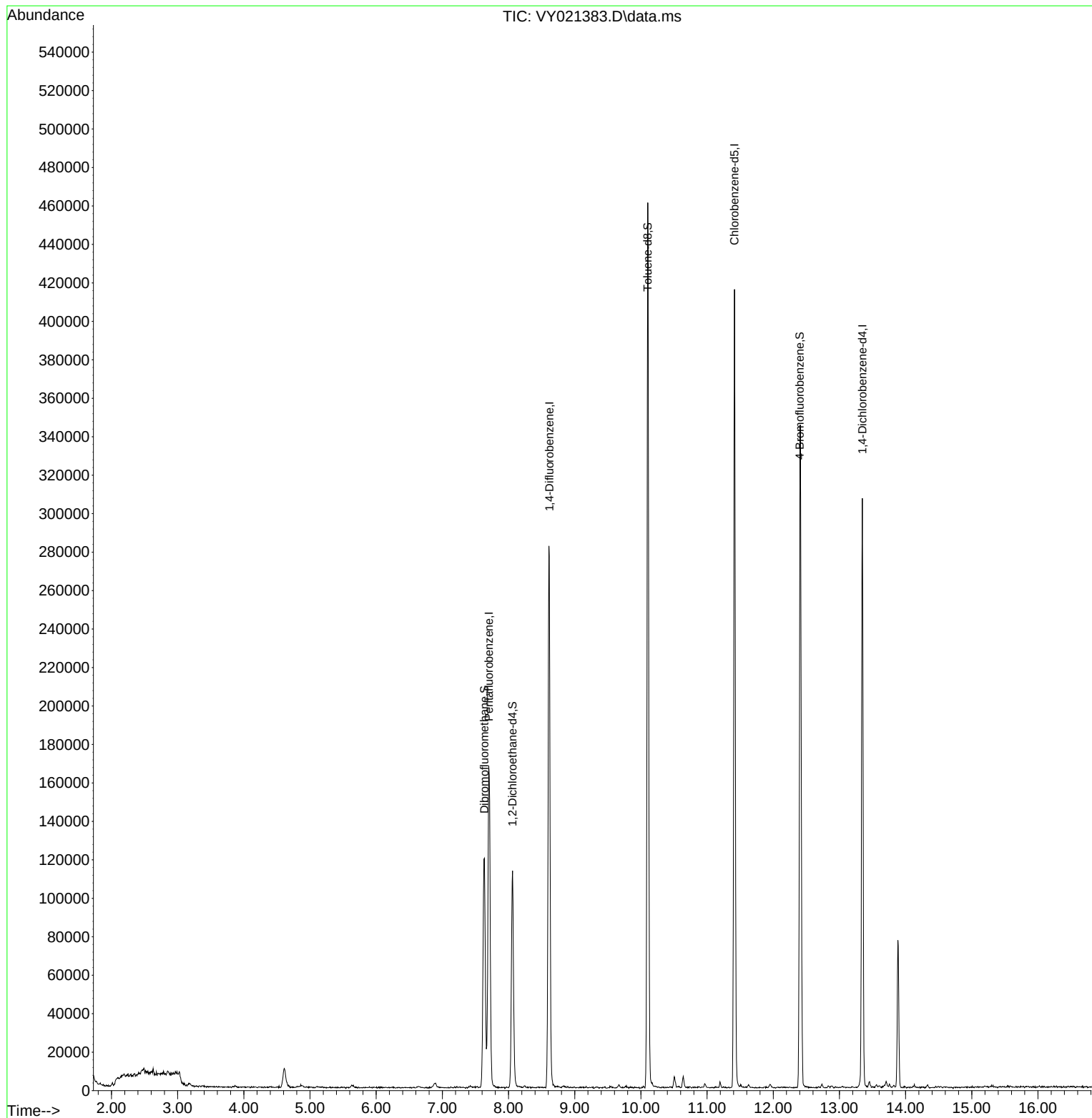
Target Compounds	Qvalue

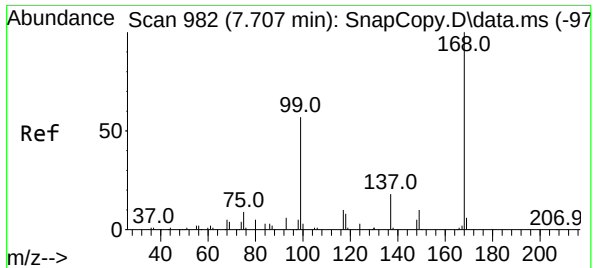
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021383.D
Acq On : 28 Feb 2025 16:18
Operator : SY/MD
Sample : Q1448-02RE
Misc : 6.87g/5.0mL/MSVOA_Y/SOIL/B
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P1RE

Quant Time: Feb 28 22:21:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

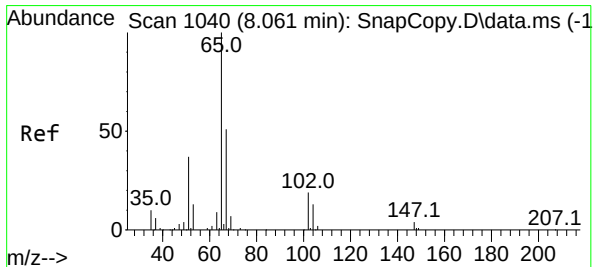
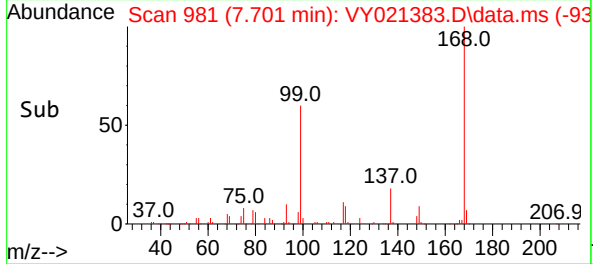
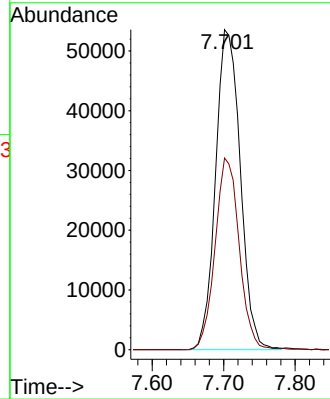
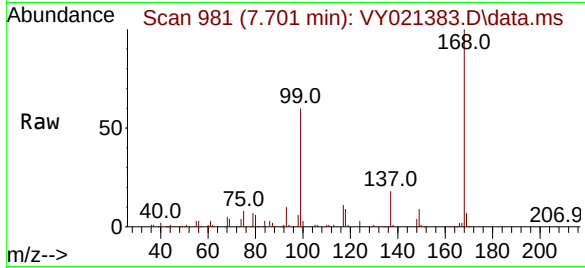




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.701 min Scan# 91
Delta R.T. -0.006 min
Lab File: VY021383.D
Acq: 28 Feb 2025 16:18

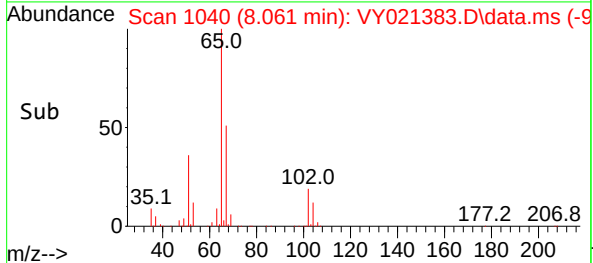
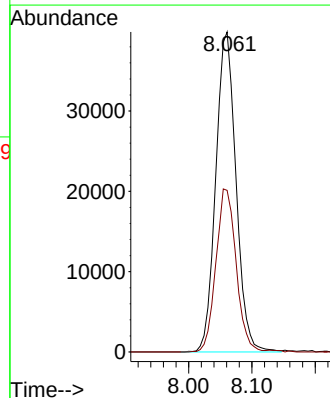
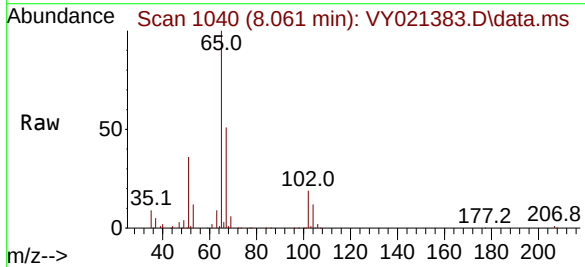
Instrument :
MSVOA_Y
ClientSampleId :
P1RE

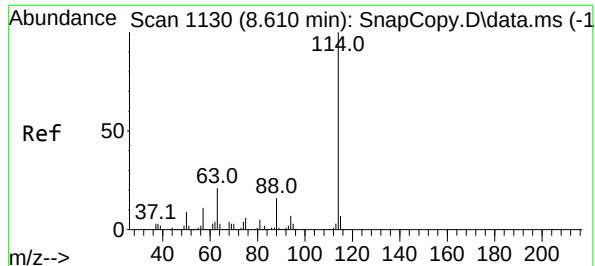
Tgt Ion:168 Resp: 128523
Ion Ratio Lower Upper
168 100
99 59.9 47.1 70.7



#33
1,2-Dichloroethane-d4
Concen: 60.631 ug/l
RT: 8.061 min Scan# 1040
Delta R.T. 0.000 min
Lab File: VY021383.D
Acq: 28 Feb 2025 16:18

Tgt Ion: 65 Resp: 88399
Ion Ratio Lower Upper
65 100
67 50.9 0.0 103.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VY021383.D

Acq: 28 Feb 2025 16:18

Instrument :

MSVOA_Y

ClientSampleId :

P1RE

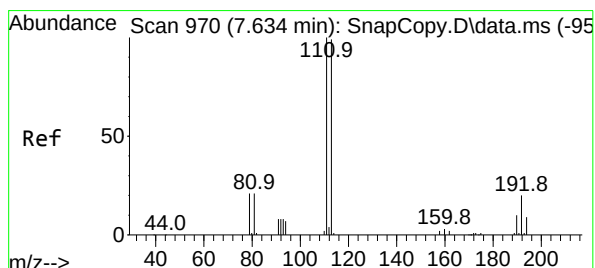
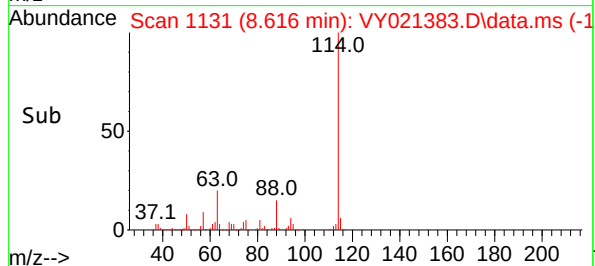
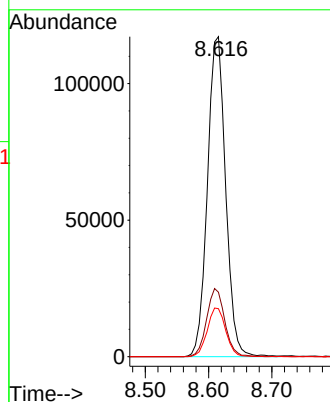
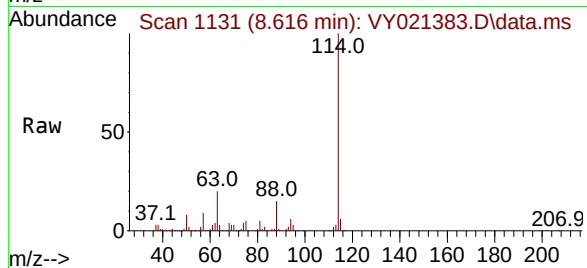
Tgt Ion:114 Resp: 234842

Ion Ratio Lower Upper

114 100

63 20.2 0.0 42.2

88 15.0 0.0 29.8



#35

Dibromofluoromethane

Concen: 55.317 ug/l

RT: 7.634 min Scan# 970

Delta R.T. 0.000 min

Lab File: VY021383.D

Acq: 28 Feb 2025 16:18

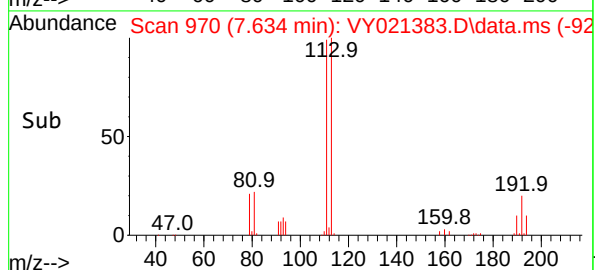
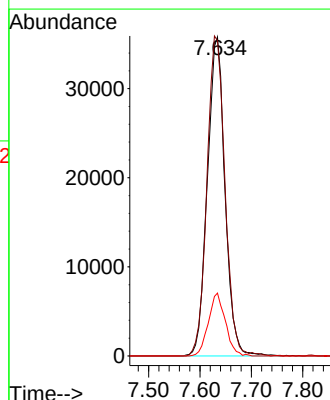
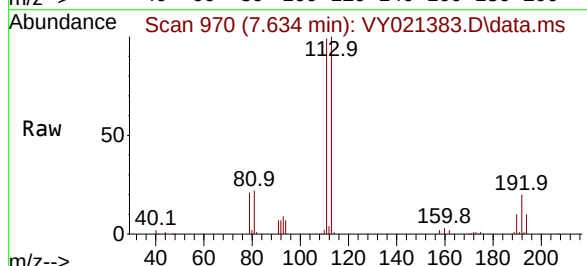
Tgt Ion:113 Resp: 85169

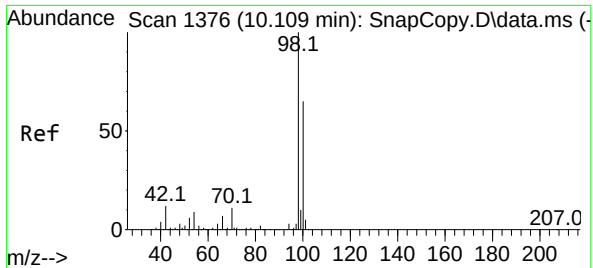
Ion Ratio Lower Upper

113 100

111 102.8 81.0 121.6

192 19.1 15.8 23.8

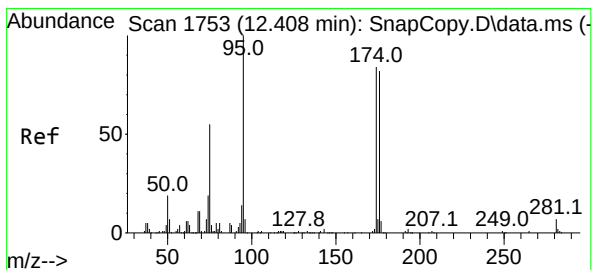
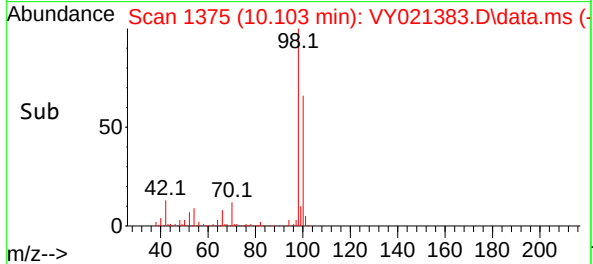
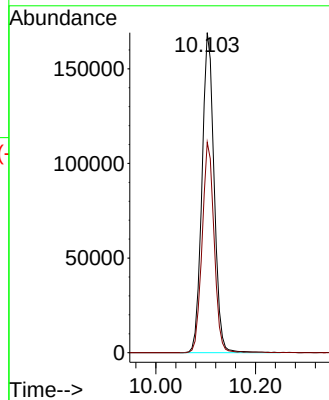
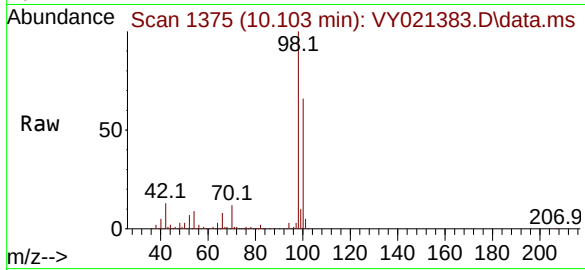




#50
Toluene-d8
Concen: 47.954 ug/l
RT: 10.103 min Scan# 11
Delta R.T. 0.000 min
Lab File: VY021383.D
Acq: 28 Feb 2025 16:18

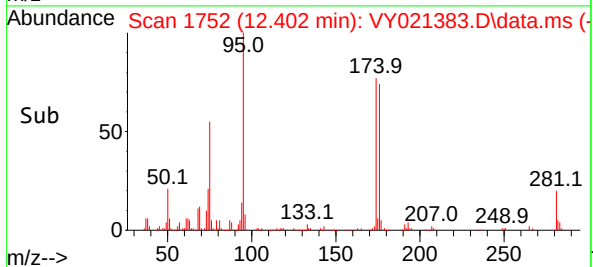
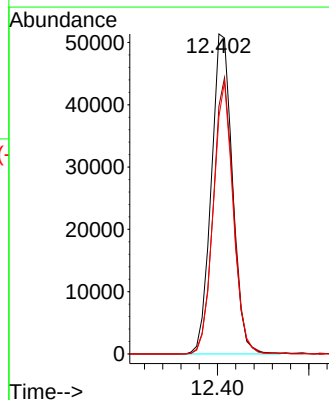
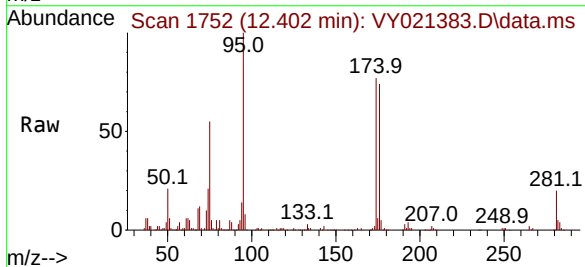
Instrument :
MSVOA_Y
ClientSampleId :
P1RE

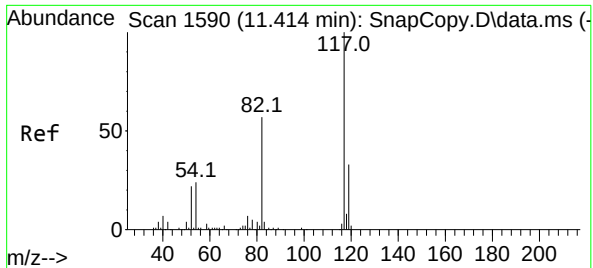
Tgt Ion: 98 Resp: 285341
Ion Ratio Lower Upper
98 100
100 65.0 52.4 78.6



#62
4-Bromofluorobenzene
Concen: 41.137 ug/l
RT: 12.402 min Scan# 1752
Delta R.T. -0.006 min
Lab File: VY021383.D
Acq: 28 Feb 2025 16:18

Tgt Ion: 95 Resp: 82379
Ion Ratio Lower Upper
95 100
174 82.9 0.0 168.0
176 79.8 0.0 162.6

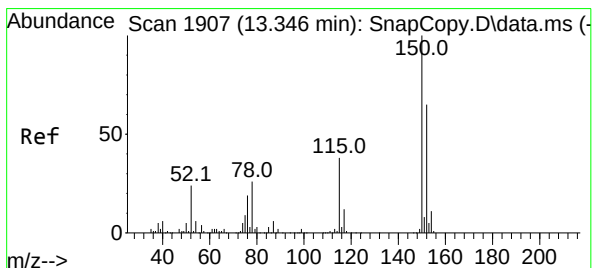
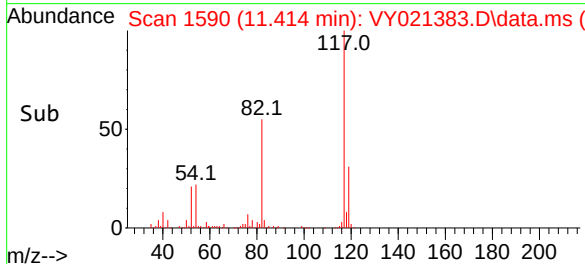
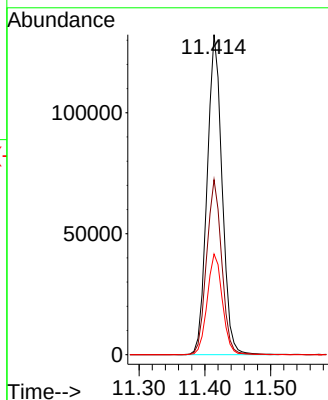
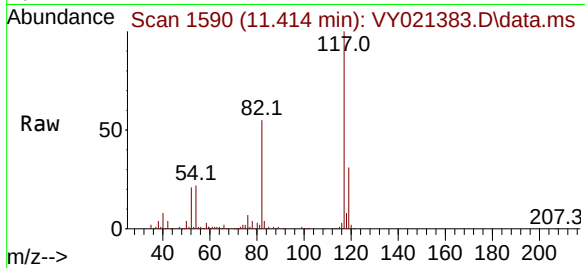




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.414 min Scan# 1590
Delta R.T. 0.000 min
Lab File: VY021383.D
Acq: 28 Feb 2025 16:18

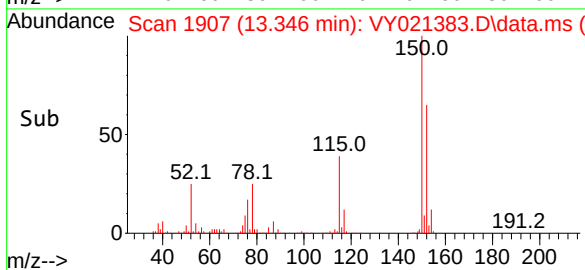
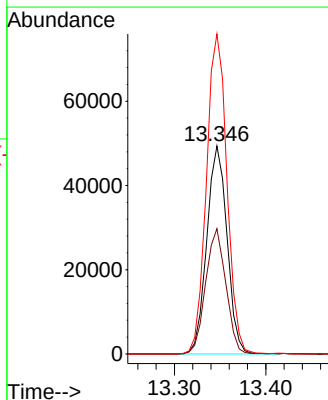
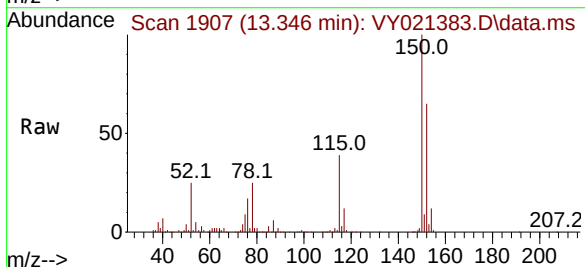
Instrument :
MSVOA_Y
ClientSampleId :
P1RE

Tgt Ion:117 Resp: 209615
Ion Ratio Lower Upper
117 100
82 54.7 46.2 69.4
119 31.4 24.9 37.3



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.346 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VY021383.D
Acq: 28 Feb 2025 16:18

Tgt Ion:152 Resp: 75987
Ion Ratio Lower Upper
152 100
115 60.2 29.3 88.0
150 155.3 0.0 347.4



Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P2	SDG No.:	Q1448
Lab Sample ID:	Q1448-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90
Sample Wt/Vol:	6.38	Units: g	Final Vol: 5000 uL
Soil Aliquot Vol:		uL	Test: VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level : LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021368.D	1		02/27/25 19:06	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1.00	U	1.00	4.40	ug/Kg
75-01-4	Vinyl Chloride	0.67	U	0.67	4.40	ug/Kg
74-83-9	Bromomethane	0.90	U	0.90	4.40	ug/Kg
75-00-3	Chloroethane	0.88	U	0.88	4.40	ug/Kg
75-65-0	Tert butyl alcohol	13.6	U	13.6	21.8	ug/Kg
75-35-4	1,1-Dichloroethene	0.68	U	0.68	4.40	ug/Kg
67-64-1	Acetone	5.40	U	5.40	21.8	ug/Kg
75-15-0	Carbon Disulfide	1.10	U	1.10	4.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.58	U	0.58	4.40	ug/Kg
75-09-2	Methylene Chloride	3.00	U	3.00	8.70	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.73	U	0.73	4.40	ug/Kg
75-34-3	1,1-Dichloroethane	0.55	U	0.55	4.40	ug/Kg
78-93-3	2-Butanone	4.90	U	4.90	21.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.76	U	0.76	4.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.53	U	0.53	4.40	ug/Kg
67-66-3	Chloroform	0.58	U	0.58	4.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.68	U	0.68	4.40	ug/Kg
71-43-2	Benzene	0.63	U	0.63	4.40	ug/Kg
107-06-2	1,2-Dichloroethane	0.53	U	0.53	4.40	ug/Kg
79-01-6	Trichloroethene	0.65	U	0.65	4.40	ug/Kg
78-87-5	1,2-Dichloropropane	0.57	U	0.57	4.40	ug/Kg
75-27-4	Bromodichloromethane	0.49	U	0.49	4.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.80	U	3.80	21.8	ug/Kg
108-88-3	Toluene	0.58	U	0.58	4.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.52	U	0.52	4.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	4.40	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.73	U	0.73	4.40	ug/Kg
591-78-6	2-Hexanone	4.20	U	4.20	21.8	ug/Kg
124-48-1	Dibromochloromethane	0.57	U	0.57	4.40	ug/Kg
127-18-4	Tetrachloroethene	0.77	U	0.77	4.40	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P2	SDG No.:	Q1448
Lab Sample ID:	Q1448-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90
Sample Wt/Vol:	6.38 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021368.D	1		02/27/25 19:06	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.64	U	0.64	4.40	ug/Kg
100-41-4	Ethyl Benzene	0.54	U	0.54	4.40	ug/Kg
179601-23-1	m/p-Xylenes	1.20	U	1.20	8.70	ug/Kg
95-47-6	o-Xylene	0.61	U	0.61	4.40	ug/Kg
100-42-5	Styrene	0.52	U	0.52	4.40	ug/Kg
75-25-2	Bromoform	0.71	U	0.71	4.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.96	U	0.96	4.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.2		70 (63) - 130 (155)	112%	SPK: 50
1868-53-7	Dibromofluoromethane	53.6		70 (70) - 130 (134)	107%	SPK: 50
2037-26-5	Toluene-d8	47.3		70 (74) - 130 (123)	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.5		70 (38) - 130 (136)	77%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	111000	7.707			
540-36-3	1,4-Difluorobenzene	195000	8.616			
3114-55-4	Chlorobenzene-d5	167000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	57400	13.346			

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\VY022725\
 Data File : VY021368.D
 Acq On : 27 Feb 2025 19:06
 Operator : SY/MD
 Sample : Q1448-03
 Misc : 6.38g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 25 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 P2

Quant Time: Feb 28 00:44:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	110830	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	195290	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	166522	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	57355	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	70693	56.227	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	112.460%
35) Dibromofluoromethane	7.634	113	68645	53.615	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	107.220%
50) Toluene-d8	10.109	98	234138	47.318	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	94.640%
62) 4-Bromofluorobenzene	12.408	95	64050	38.462	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	76.920%

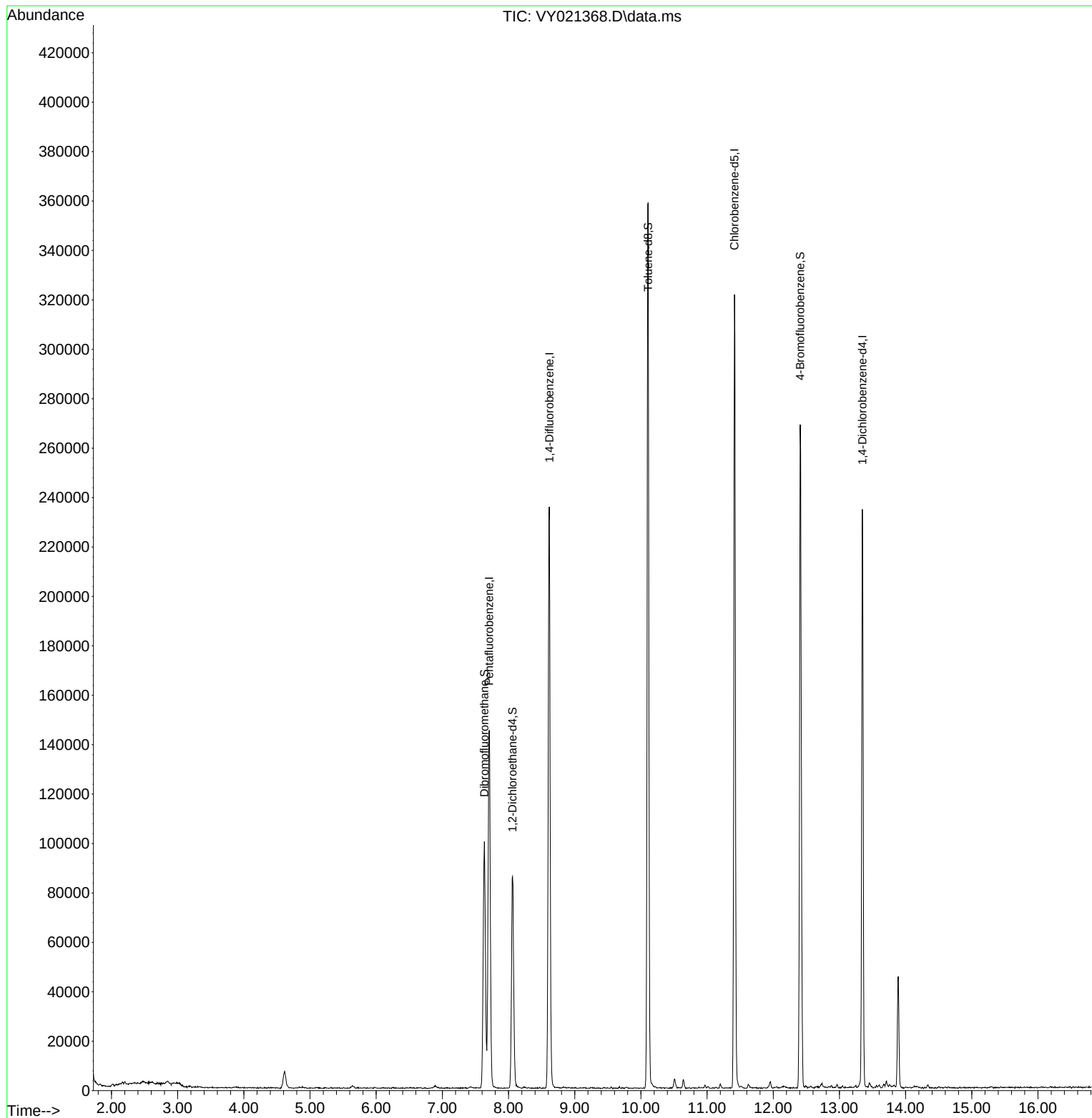
Target Compounds	Qvalue

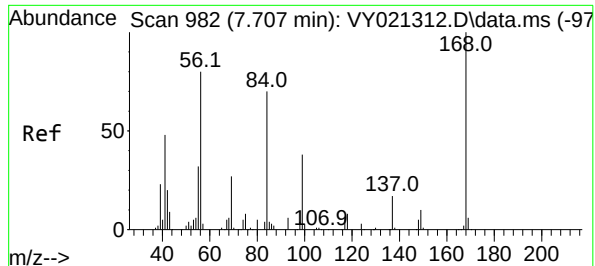
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021368.D
Acq On : 27 Feb 2025 19:06
Operator : SY/MD
Sample : Q1448-03
Misc : 6.38g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P2

Quant Time: Feb 28 00:44:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

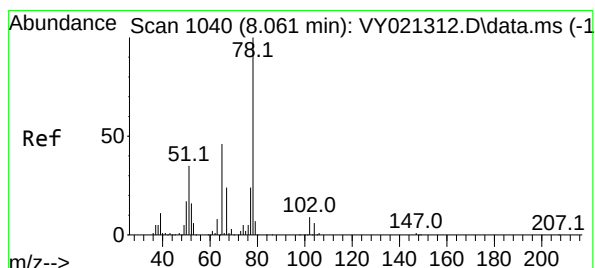
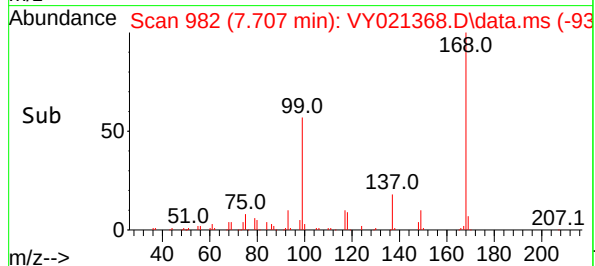
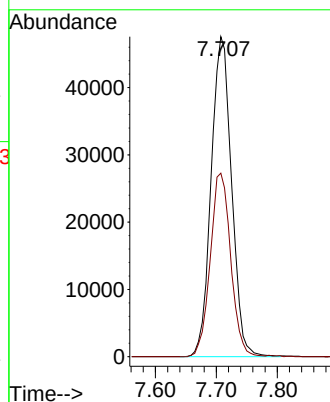
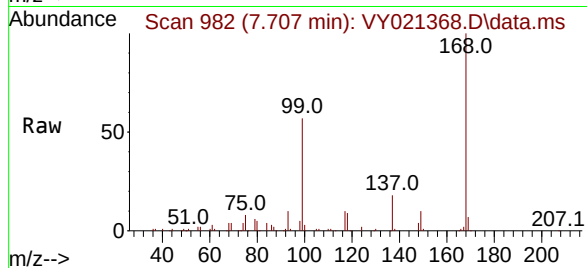




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 982
Delta R.T. 0.000 min
Lab File: VY021368.D
Acq: 27 Feb 2025 19:06

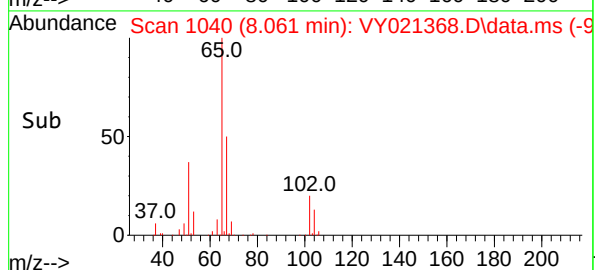
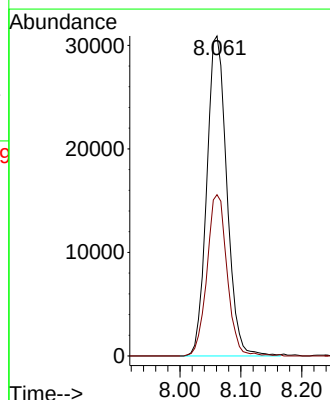
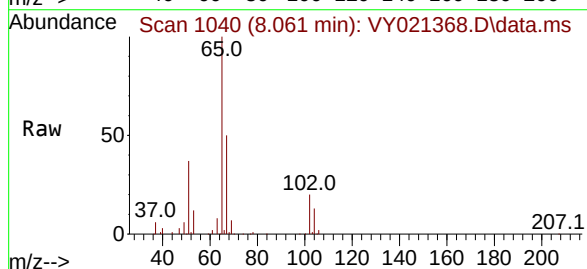
Instrument :
MSVOA_Y
ClientSampleId :
P2

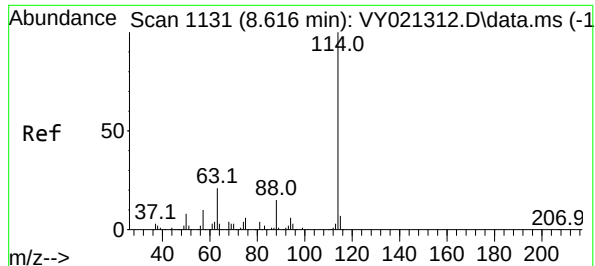
Tgt Ion:168 Resp: 110830
Ion Ratio Lower Upper
168 100
99 57.4 47.1 70.7



#33
1,2-Dichloroethane-d4
Concen: 56.227 ug/l
RT: 8.061 min Scan# 1040
Delta R.T. 0.000 min
Lab File: VY021368.D
Acq: 27 Feb 2025 19:06

Tgt Ion: 65 Resp: 70693
Ion Ratio Lower Upper
65 100
67 50.6 0.0 103.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VY021368.D

Acq: 27 Feb 2025 19:06

Instrument :

MSVOA_Y

ClientSampleId :

P2

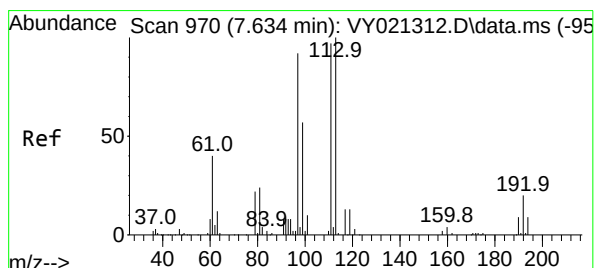
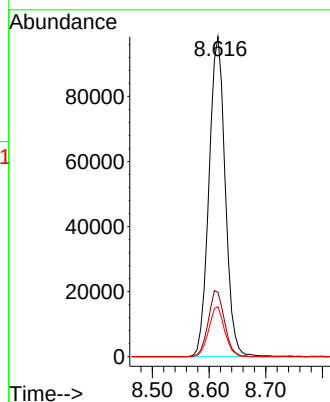
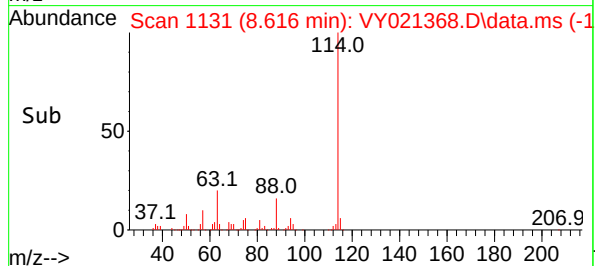
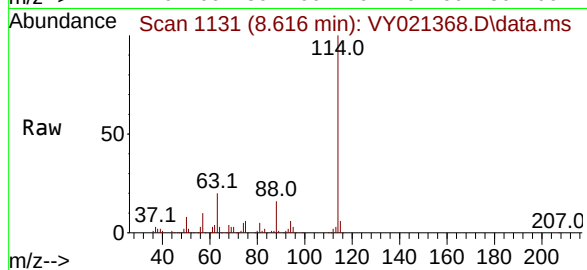
Tgt Ion:114 Resp: 195290

Ion Ratio Lower Upper

114 100

63 20.1 0.0 42.2

88 15.6 0.0 29.8



#35

Dibromofluoromethane

Concen: 53.615 ug/l

RT: 7.634 min Scan# 970

Delta R.T. 0.000 min

Lab File: VY021368.D

Acq: 27 Feb 2025 19:06

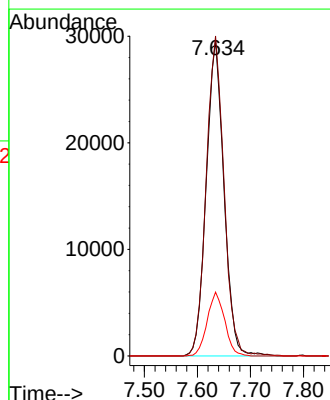
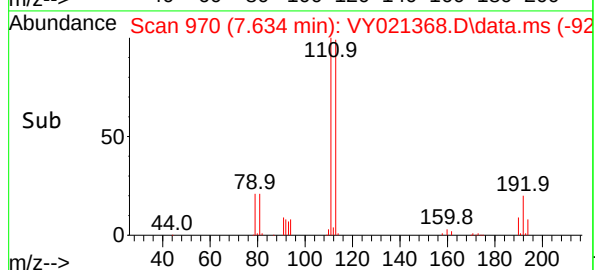
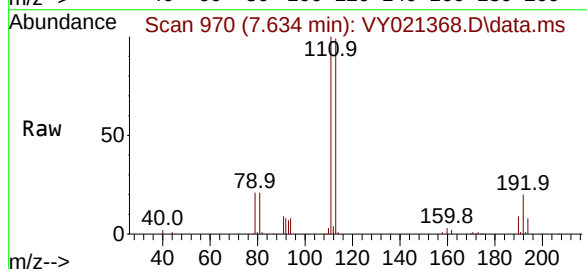
Tgt Ion:113 Resp: 68645

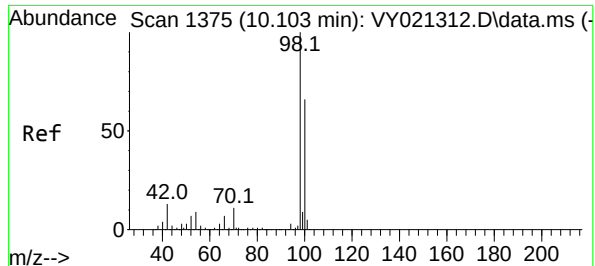
Ion Ratio Lower Upper

113 100

111 102.1 81.0 121.6

192 20.0 15.8 23.8





#50

Toluene-d8

Concen: 47.318 ug/l

RT: 10.109 min Scan# 1

Delta R.T. 0.006 min

Lab File: VY021368.D

Acq: 27 Feb 2025 19:06

Instrument :

MSVOA_Y

ClientSampleId :

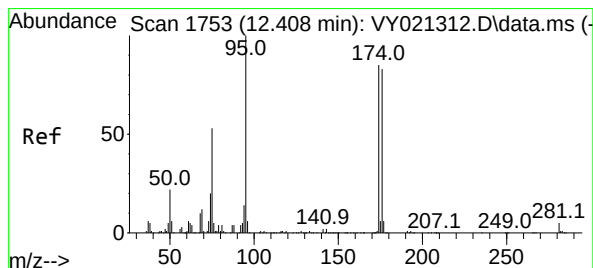
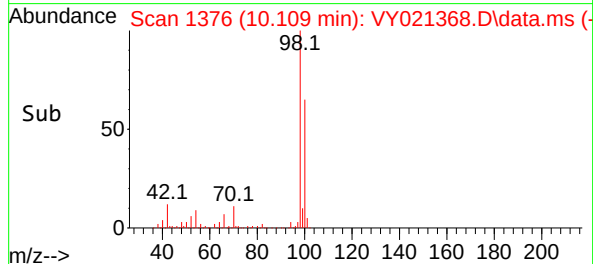
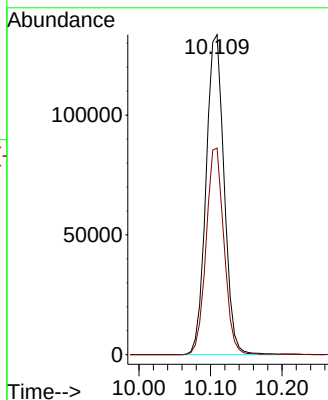
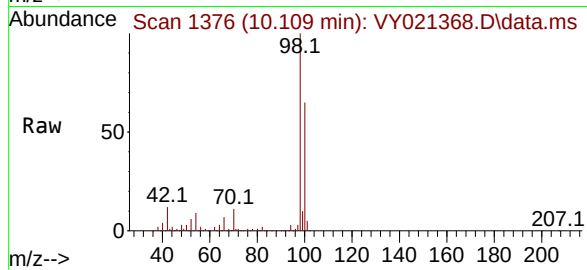
P2

Tgt Ion: 98 Resp: 234138

Ion Ratio Lower Upper

98 100

100 64.1 52.4 78.6



#62

4-Bromofluorobenzene

Concen: 38.462 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. 0.000 min

Lab File: VY021368.D

Acq: 27 Feb 2025 19:06

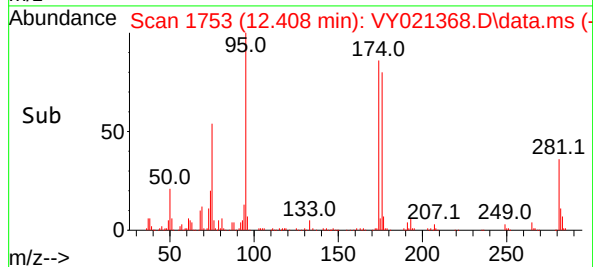
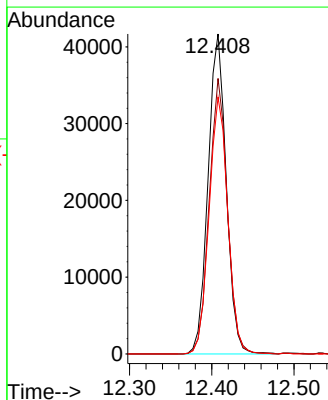
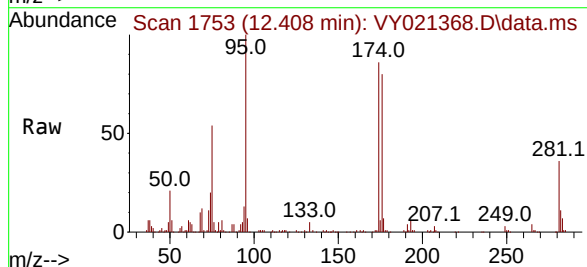
Tgt Ion: 95 Resp: 64050

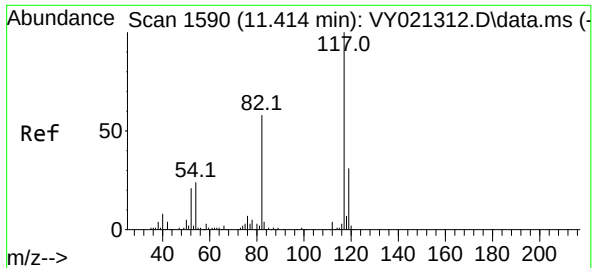
Ion Ratio Lower Upper

95 100

174 86.1 0.0 168.0

176 82.8 0.0 162.6

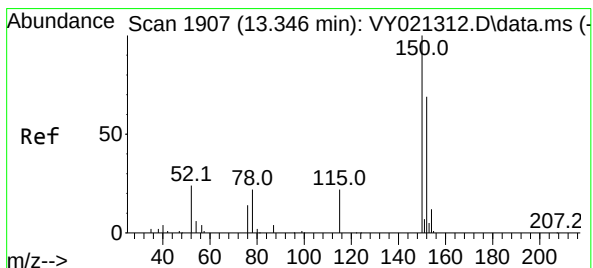
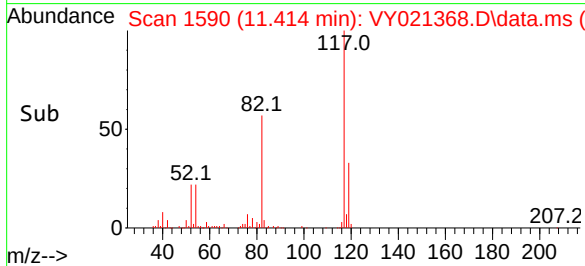
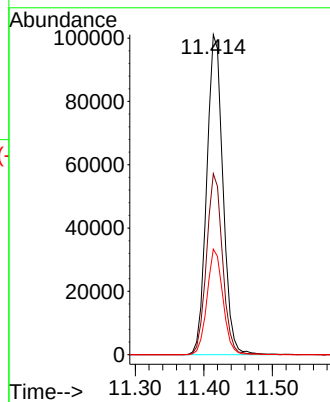
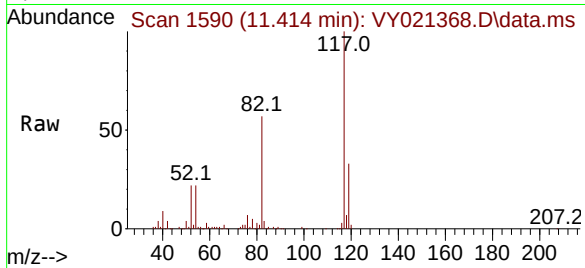




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.414 min Scan# 11
Delta R.T. 0.000 min
Lab File: VY021368.D
Acq: 27 Feb 2025 19:06

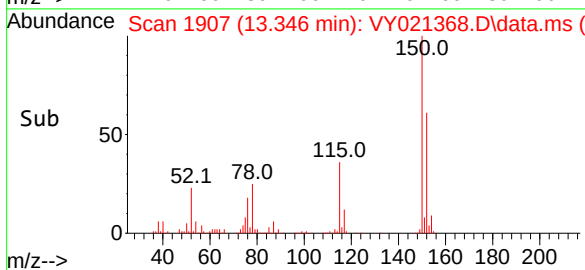
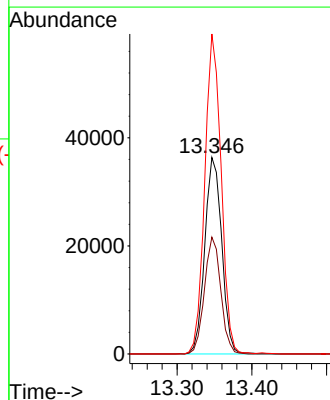
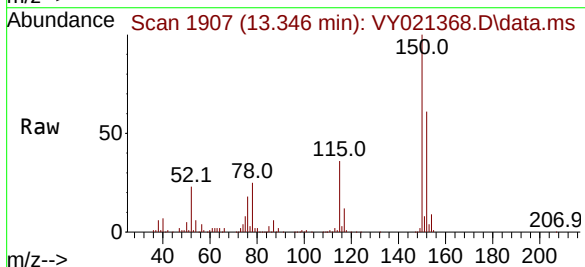
Instrument :
MSVOA_Y
ClientSampleId :
P2

Tgt Ion:117 Resp: 166522
Ion Ratio Lower Upper
117 100
82 56.5 46.2 69.4
119 33.0 24.9 37.3



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.346 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VY021368.D
Acq: 27 Feb 2025 19:06

Tgt Ion:152 Resp: 57355
Ion Ratio Lower Upper
152 100
115 57.2 29.3 88.0
150 156.7 0.0 347.4



Report of Analysis

Client:	G Environmental		Date Collected:	02/26/25	
Project:	Fisal		Date Received:	02/26/25	
Client Sample ID:	P2RE		SDG No.:	Q1448	
Lab Sample ID:	Q1448-03RE		Matrix:	SOIL	
Analytical Method:	SW8260		% Solid:	90	
Sample Wt/Vol:	5.22	Units: g	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group2	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021384.D	1		02/28/25 16:41	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1.20	U	1.20	5.30	ug/Kg
75-01-4	Vinyl Chloride	0.82	U	0.82	5.30	ug/Kg
74-83-9	Bromomethane	1.10	U	1.10	5.30	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	5.30	ug/Kg
75-65-0	Tert butyl alcohol	16.6	U	16.6	26.6	ug/Kg
75-35-4	1,1-Dichloroethene	0.83	U	0.83	5.30	ug/Kg
67-64-1	Acetone	6.60	U	6.60	26.6	ug/Kg
75-15-0	Carbon Disulfide	1.40	U	1.40	5.30	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.71	U	0.71	5.30	ug/Kg
75-09-2	Methylene Chloride	9.40	J	3.60	10.6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.89	U	0.89	5.30	ug/Kg
75-34-3	1,1-Dichloroethane	0.67	U	0.67	5.30	ug/Kg
78-93-3	2-Butanone	6.00	U	6.00	26.6	ug/Kg
56-23-5	Carbon Tetrachloride	0.93	U	0.93	5.30	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.65	U	0.65	5.30	ug/Kg
67-66-3	Chloroform	0.71	U	0.71	5.30	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.30	ug/Kg
71-43-2	Benzene	0.77	U	0.77	5.30	ug/Kg
107-06-2	1,2-Dichloroethane	0.65	U	0.65	5.30	ug/Kg
79-01-6	Trichloroethene	0.80	U	0.80	5.30	ug/Kg
78-87-5	1,2-Dichloropropane	0.70	U	0.70	5.30	ug/Kg
75-27-4	Bromodichloromethane	0.60	U	0.60	5.30	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.60	U	4.60	26.6	ug/Kg
108-88-3	Toluene	0.71	U	0.71	5.30	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.64	U	0.64	5.30	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.61	U	0.61	5.30	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.89	U	0.89	5.30	ug/Kg
591-78-6	2-Hexanone	5.10	U	5.10	26.6	ug/Kg
124-48-1	Dibromochloromethane	0.69	U	0.69	5.30	ug/Kg
127-18-4	Tetrachloroethene	0.95	U	0.95	5.30	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P2RE	SDG No.:	Q1448
Lab Sample ID:	Q1448-03RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90
Sample Wt/Vol:	5.22	Units: g	Final Vol: 5000 uL
Soil Aliquot Vol:		uL	Test: VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level : LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021384.D	1		02/28/25 16:41	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.79	U	0.79	5.30	ug/Kg
100-41-4	Ethyl Benzene	0.66	U	0.66	5.30	ug/Kg
179601-23-1	m/p-Xylenes	1.40	U	1.40	10.6	ug/Kg
95-47-6	o-Xylene	0.74	U	0.74	5.30	ug/Kg
100-42-5	Styrene	0.64	U	0.64	5.30	ug/Kg
75-25-2	Bromoform	0.86	U	0.86	5.30	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.20	U	1.20	5.30	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.4		70 (63) - 130 (155)	119%	SPK: 50
1868-53-7	Dibromofluoromethane	54.8		70 (70) - 130 (134)	110%	SPK: 50
2037-26-5	Toluene-d8	47.4		70 (74) - 130 (123)	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.7		70 (38) - 130 (136)	77%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	122000	7.707			
540-36-3	1,4-Difluorobenzene	221000	8.616			
3114-55-4	Chlorobenzene-d5	190000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	61700	13.347			

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\VY022825\
Data File : VY021384.D
Acq On : 28 Feb 2025 16:41
Operator : SY/MD
Sample : Q1448-03RE
Misc : 5.22g/5.0mL/MSVOA_Y/SOIL/B
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P2RE

Quant Time: Feb 28 22:21:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

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

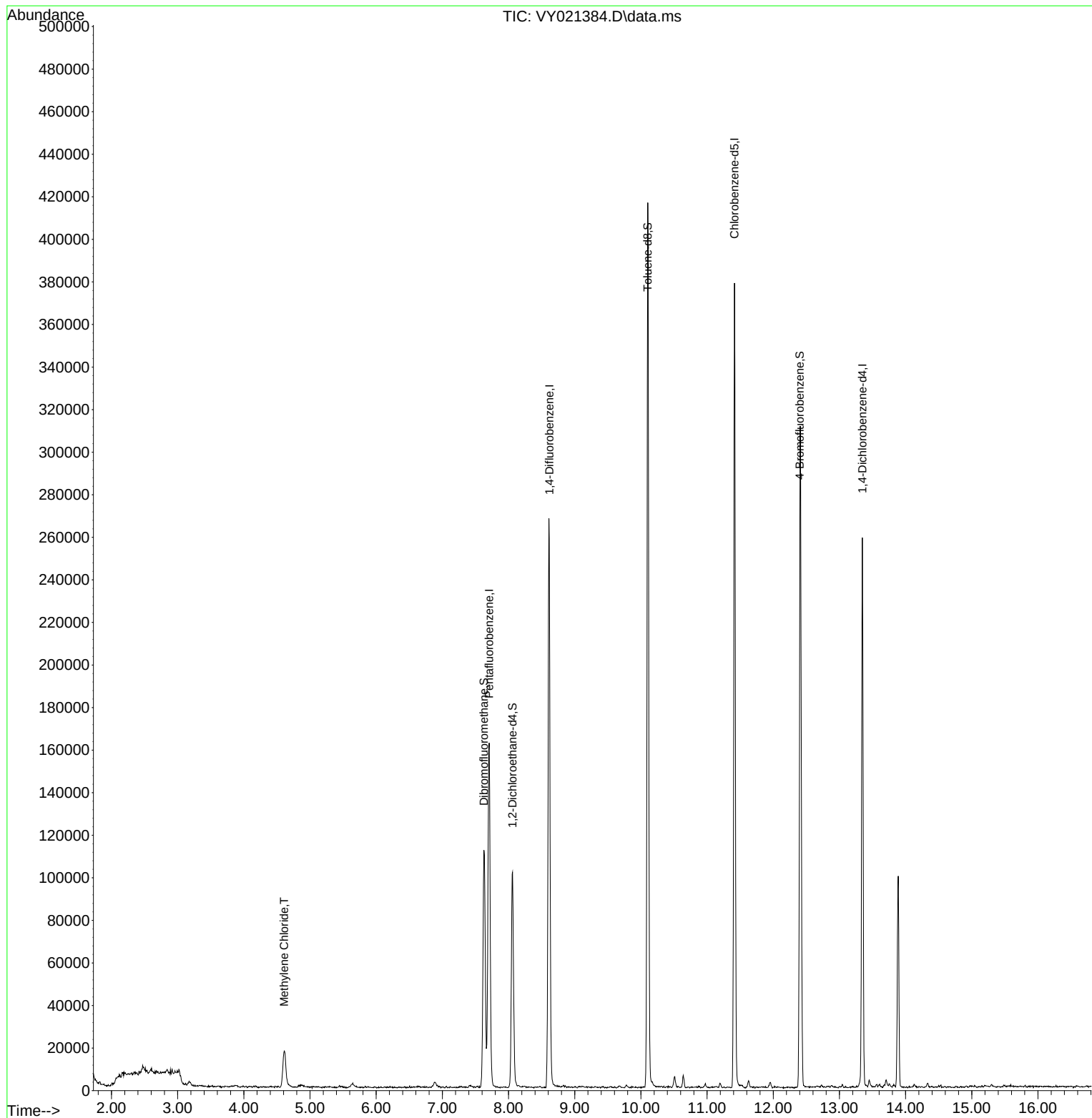
Internal Standards						
1) Pentafluorobenzene	7.707	168	121901	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	220759	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	190273	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	61708	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	82163	59.415	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 118.840%	
35) Dibromofluoromethane	7.628	113	79241	54.750	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 109.500%	
50) Toluene-d8	10.103	98	265235	47.419	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	= 94.840%	
62) 4-Bromofluorobenzene	12.402	95	72859	38.704	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	= 77.400%	
Target Compounds						Qvalue
20) Methylene Chloride	4.610	84	12720	8.868	ug/l	88

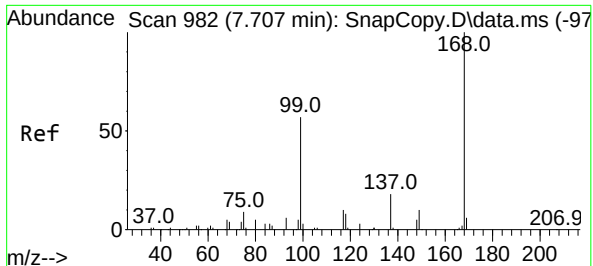
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021384.D
Acq On : 28 Feb 2025 16:41
Operator : SY/MD
Sample : Q1448-03RE
Misc : 5.22g/5.0mL/MSVOA_Y/SOIL/B
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P2RE

Quant Time: Feb 28 22:21:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

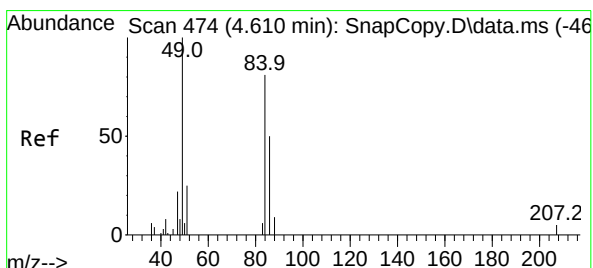
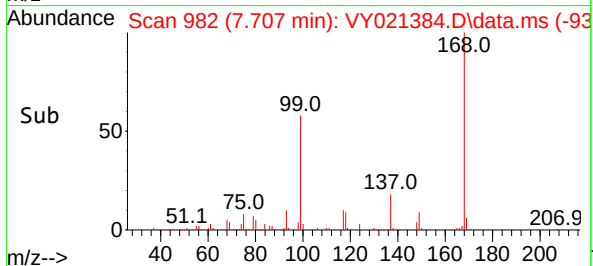
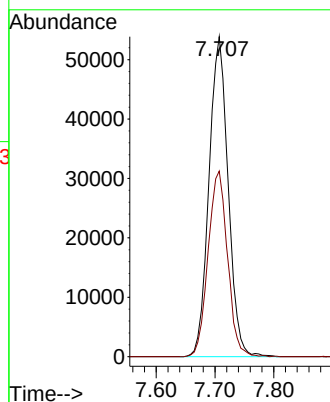
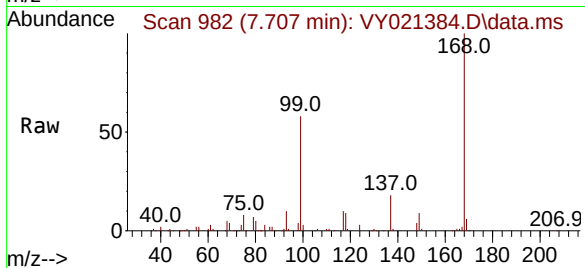




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 982
Delta R.T. 0.000 min
Lab File: VY021384.D
Acq: 28 Feb 2025 16:41

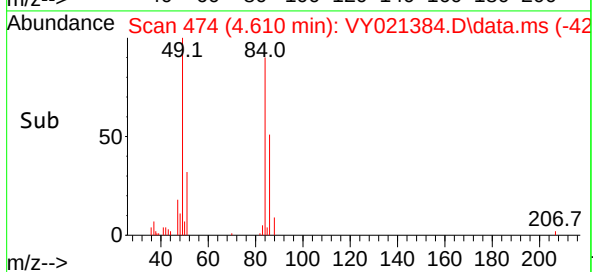
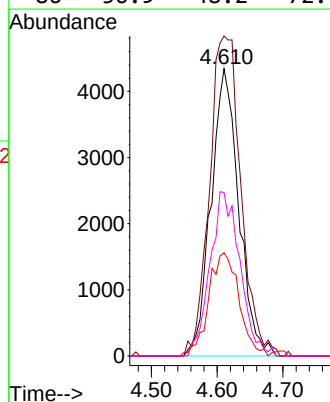
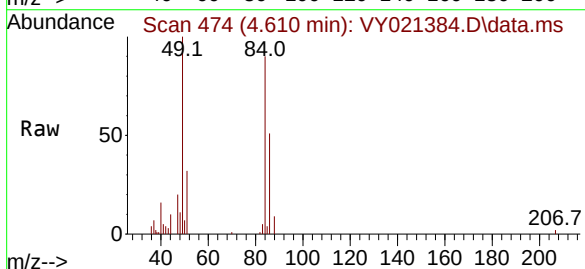
Instrument :
MSVOA_Y
ClientSampleId :
P2RE

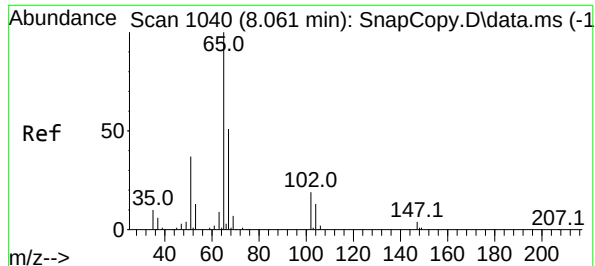
Tgt Ion:168 Resp: 121901
Ion Ratio Lower Upper
168 100
99 58.0 47.1 70.7



#20
Methylene Chloride
Concen: 8.868 ug/l
RT: 4.610 min Scan# 474
Delta R.T. 0.000 min
Lab File: VY021384.D
Acq: 28 Feb 2025 16:41

Tgt Ion: 84 Resp: 12720
Ion Ratio Lower Upper
84 100
49 111.4 105.1 157.7
51 36.0 31.0 46.4
86 56.9 48.2 72.4





#33

1,2-Dichloroethane-d4

Concen: 59.415 ug/l

RT: 8.061 min Scan# 110

Delta R.T. 0.000 min

Lab File: VY021384.D

Acq: 28 Feb 2025 16:41

Instrument :

MSVOA_Y

ClientSampleId :

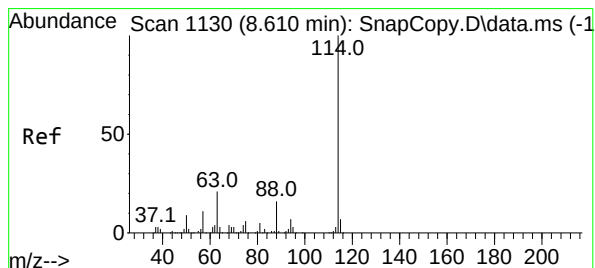
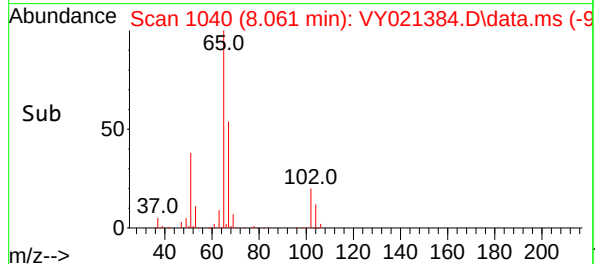
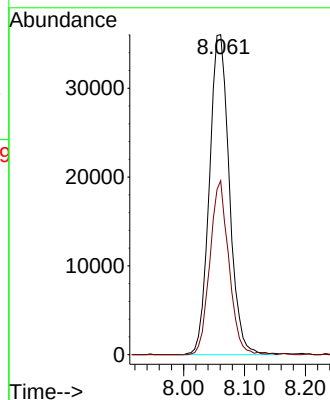
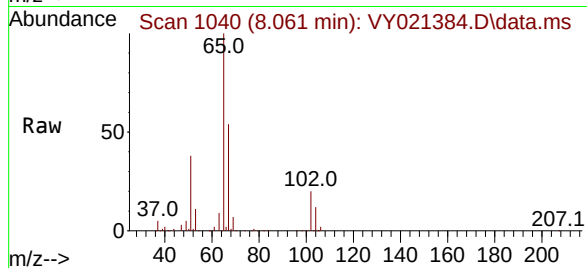
P2RE

Tgt Ion: 65 Resp: 82163

Ion Ratio Lower Upper

65 100

67 51.4 0.0 103.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VY021384.D

Acq: 28 Feb 2025 16:41

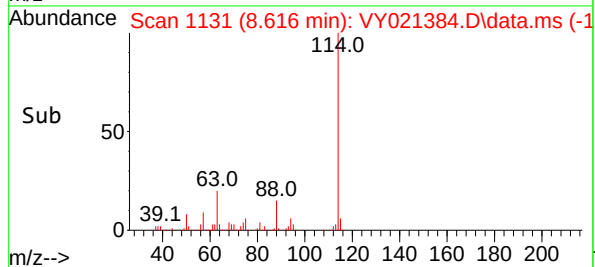
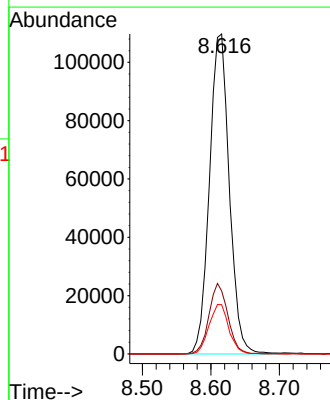
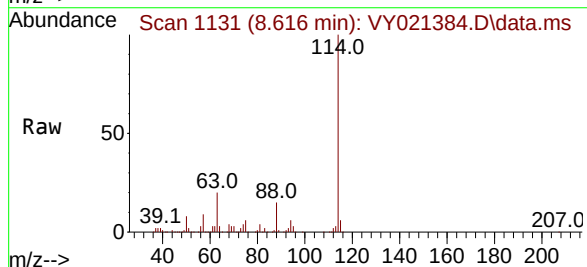
Tgt Ion: 114 Resp: 220759

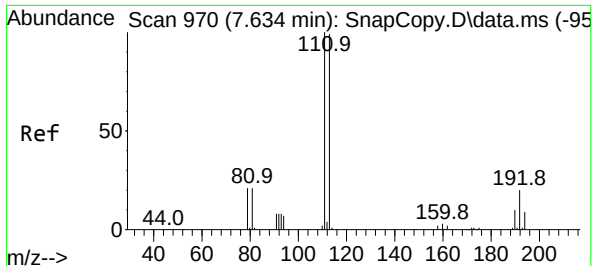
Ion Ratio Lower Upper

114 100

63 19.7 0.0 42.2

88 15.4 0.0 29.8





#35

Dibromofluoromethane

Concen: 54.750 ug/l

RT: 7.628 min Scan# 90

Delta R.T. -0.006 min

Lab File: VY021384.D

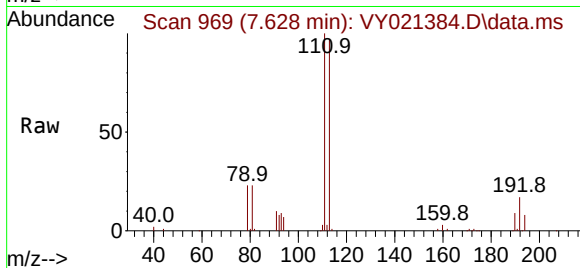
Acq: 28 Feb 2025 16:41

Instrument :

MSVOA_Y

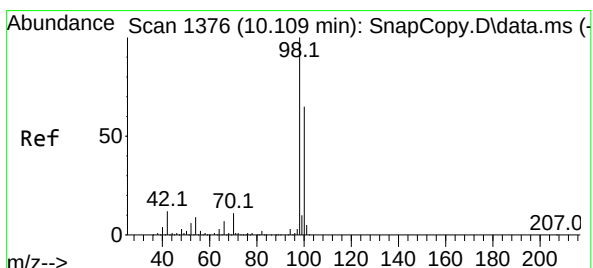
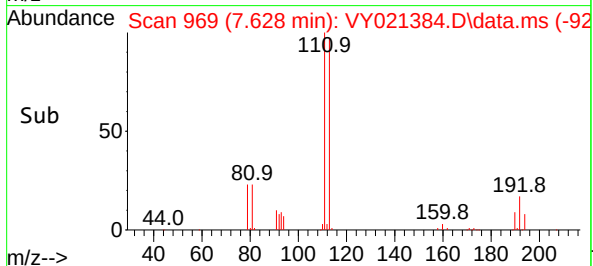
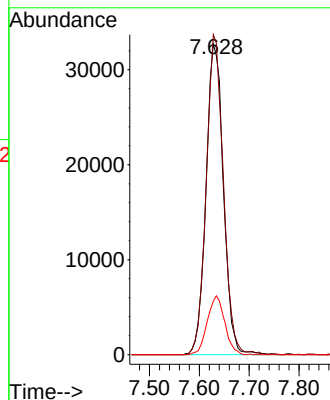
ClientSampleId :

P2RE



Tgt Ion:113 Resp: 79241

Ion	Ratio	Lower	Upper
113	100		
111	101.6	81.0	121.6
192	19.0	15.8	23.8



#50

Toluene-d8

Concen: 47.419 ug/l

RT: 10.103 min Scan# 1375

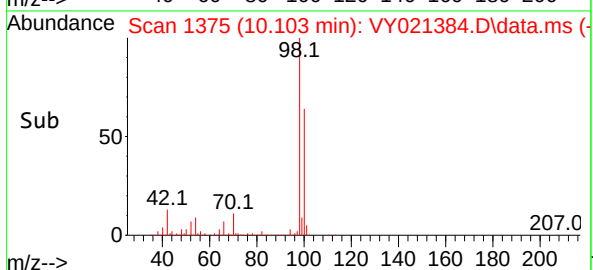
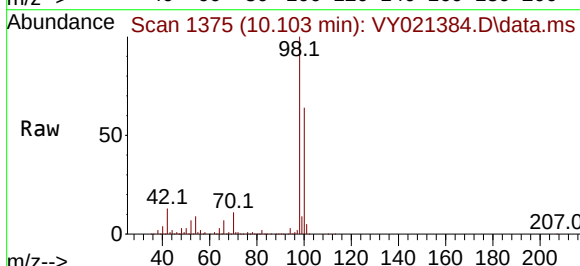
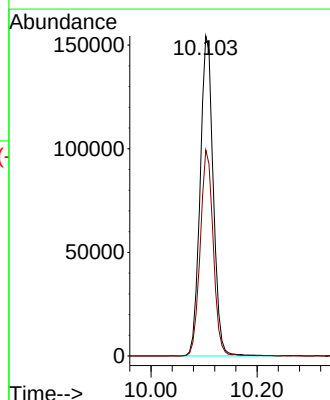
Delta R.T. 0.000 min

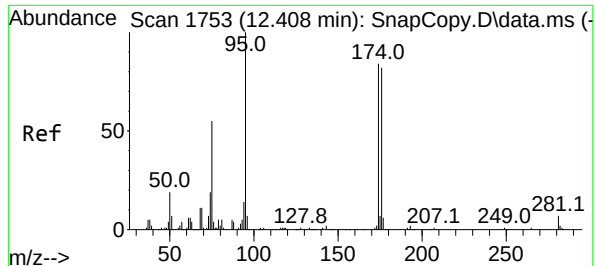
Lab File: VY021384.D

Acq: 28 Feb 2025 16:41

Tgt Ion: 98 Resp: 265235

Ion	Ratio	Lower	Upper
98	100		
100	64.1	52.4	78.6

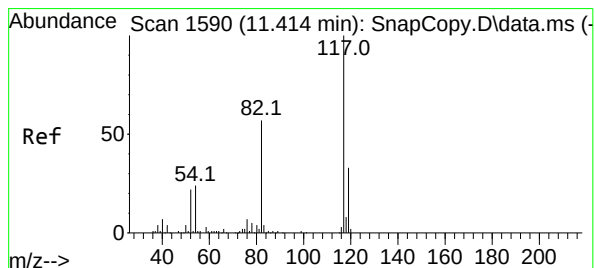
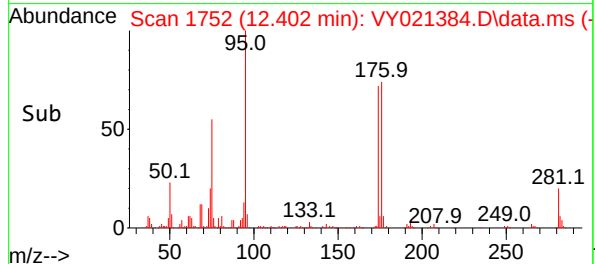
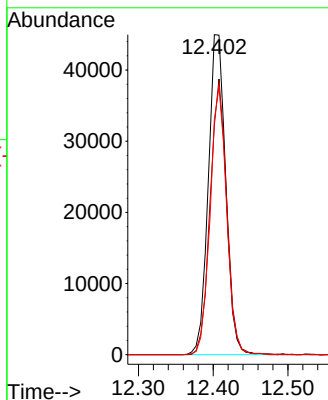
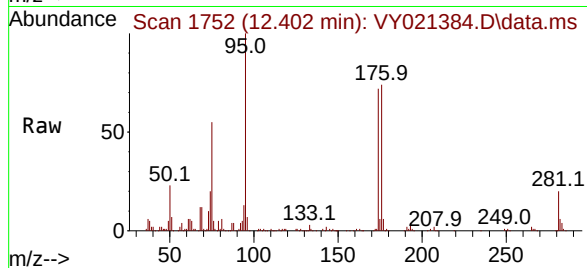




#62
4-Bromofluorobenzene
Concen: 38.704 ug/l
RT: 12.402 min Scan# 1752
Delta R.T. -0.006 min
Lab File: VY021384.D
Acq: 28 Feb 2025 16:41

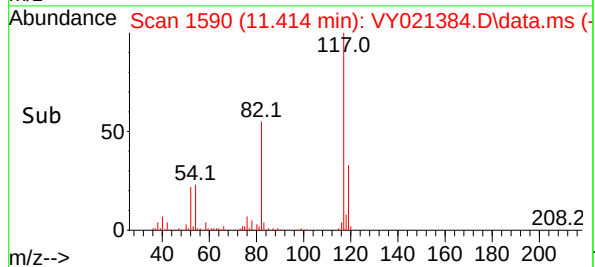
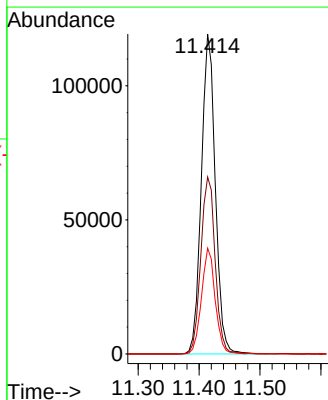
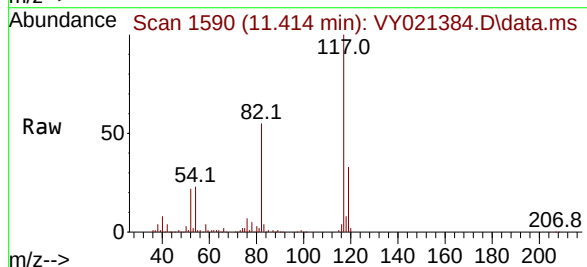
Instrument :
MSVOA_Y
ClientSampleId :
P2RE

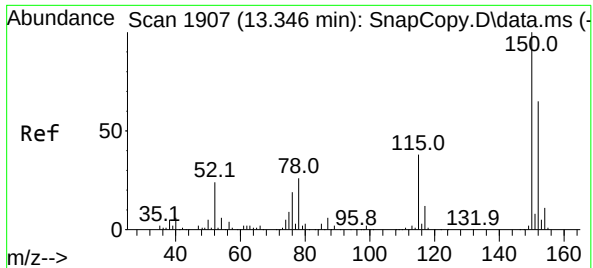
Tgt Ion	Ratio	Lower	Upper
95	100		
174	82.1	0.0	168.0
176	79.3	0.0	162.6



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.414 min Scan# 1590
Delta R.T. 0.000 min
Lab File: VY021384.D
Acq: 28 Feb 2025 16:41

Tgt Ion	Ratio	Lower	Upper
117	100		
82	55.3	46.2	69.4
119	33.1	24.9	37.3





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.347 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY021384.D

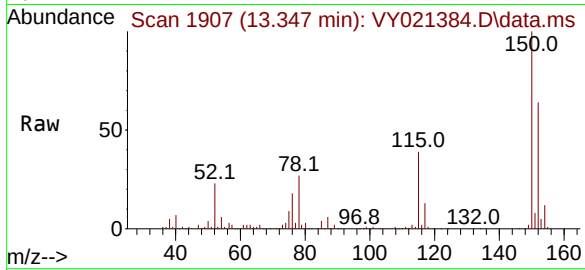
Acq: 28 Feb 2025 16:41

Instrument :

MSVOA_Y

ClientSampleId :

P2RE



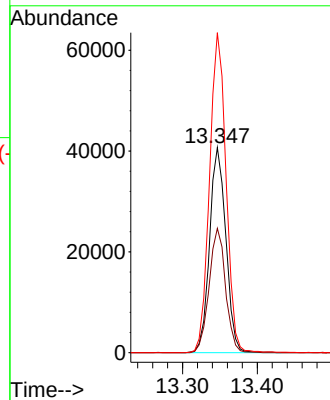
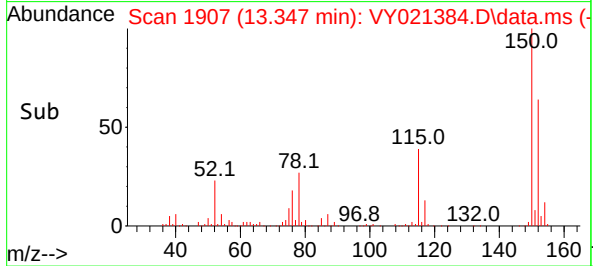
Tgt Ion:152 Resp: 61708

Ion Ratio Lower Upper

152 100

115 61.0 29.3 88.0

150 157.8 0.0 347.4



Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P3	SDG No.:	Q1448
Lab Sample ID:	Q1448-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	86.8
Sample Wt/Vol:	6.54	Units: g	Final Vol: 5000 uL
Soil Aliquot Vol:		uL	Test: VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level : LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021369.D	1		02/27/25 19:29	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1.00	U	1.00	4.40	ug/Kg
75-01-4	Vinyl Chloride	0.68	U	0.68	4.40	ug/Kg
74-83-9	Bromomethane	0.91	U	0.91	4.40	ug/Kg
75-00-3	Chloroethane	0.89	U	0.89	4.40	ug/Kg
75-65-0	Tert butyl alcohol	410		13.7	22.0	ug/Kg
75-35-4	1,1-Dichloroethene	0.69	U	0.69	4.40	ug/Kg
67-64-1	Acetone	5.50	U	5.50	22.0	ug/Kg
75-15-0	Carbon Disulfide	1.10	U	1.10	4.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.59	U	0.59	4.40	ug/Kg
75-09-2	Methylene Chloride	3.00	U	3.00	8.80	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.74	U	0.74	4.40	ug/Kg
75-34-3	1,1-Dichloroethane	0.55	U	0.55	4.40	ug/Kg
78-93-3	2-Butanone	5.00	U	5.00	22.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.77	U	0.77	4.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.54	U	0.54	4.40	ug/Kg
67-66-3	Chloroform	0.59	U	0.59	4.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.69	U	0.69	4.40	ug/Kg
71-43-2	Benzene	300	E	0.63	4.40	ug/Kg
107-06-2	1,2-Dichloroethane	0.54	U	0.54	4.40	ug/Kg
79-01-6	Trichloroethene	0.66	U	0.66	4.40	ug/Kg
78-87-5	1,2-Dichloropropane	0.58	U	0.58	4.40	ug/Kg
75-27-4	Bromodichloromethane	0.49	U	0.49	4.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.80	U	3.80	22.0	ug/Kg
108-88-3	Toluene	8.30		0.59	4.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.53	U	0.53	4.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	4.40	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.74	U	0.74	4.40	ug/Kg
591-78-6	2-Hexanone	4.20	U	4.20	22.0	ug/Kg
124-48-1	Dibromochloromethane	0.57	U	0.57	4.40	ug/Kg
127-18-4	Tetrachloroethene	0.78	U	0.78	4.40	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P3	SDG No.:	Q1448
Lab Sample ID:	Q1448-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	86.8
Sample Wt/Vol:	6.54 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021369.D	1		02/27/25 19:29	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.65	U	0.65	4.40	ug/Kg
100-41-4	Ethyl Benzene	0.55	U	0.55	4.40	ug/Kg
179601-23-1	m/p-Xylenes	2.10	J	1.20	8.80	ug/Kg
95-47-6	o-Xylene	2.90	J	0.62	4.40	ug/Kg
100-42-5	Styrene	0.53	U	0.53	4.40	ug/Kg
75-25-2	Bromoform	0.71	U	0.71	4.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.97	U	0.97	4.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.7		70 (63) - 130 (155)	101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		70 (70) - 130 (134)	100%	SPK: 50
2037-26-5	Toluene-d8	53.1		70 (74) - 130 (123)	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	35.5		70 (38) - 130 (136)	71%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	116000	7.707			
540-36-3	1,4-Difluorobenzene	199000	8.61			
3114-55-4	Chlorobenzene-d5	161000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	42800	13.347			

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\VY022725\
 Data File : VY021369.D
 Acq On : 27 Feb 2025 19:29
 Operator : SY/MD
 Sample : Q1448-04
 Misc : 6.54g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 26 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 P3

Quant Time: Feb 28 00:44:38 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

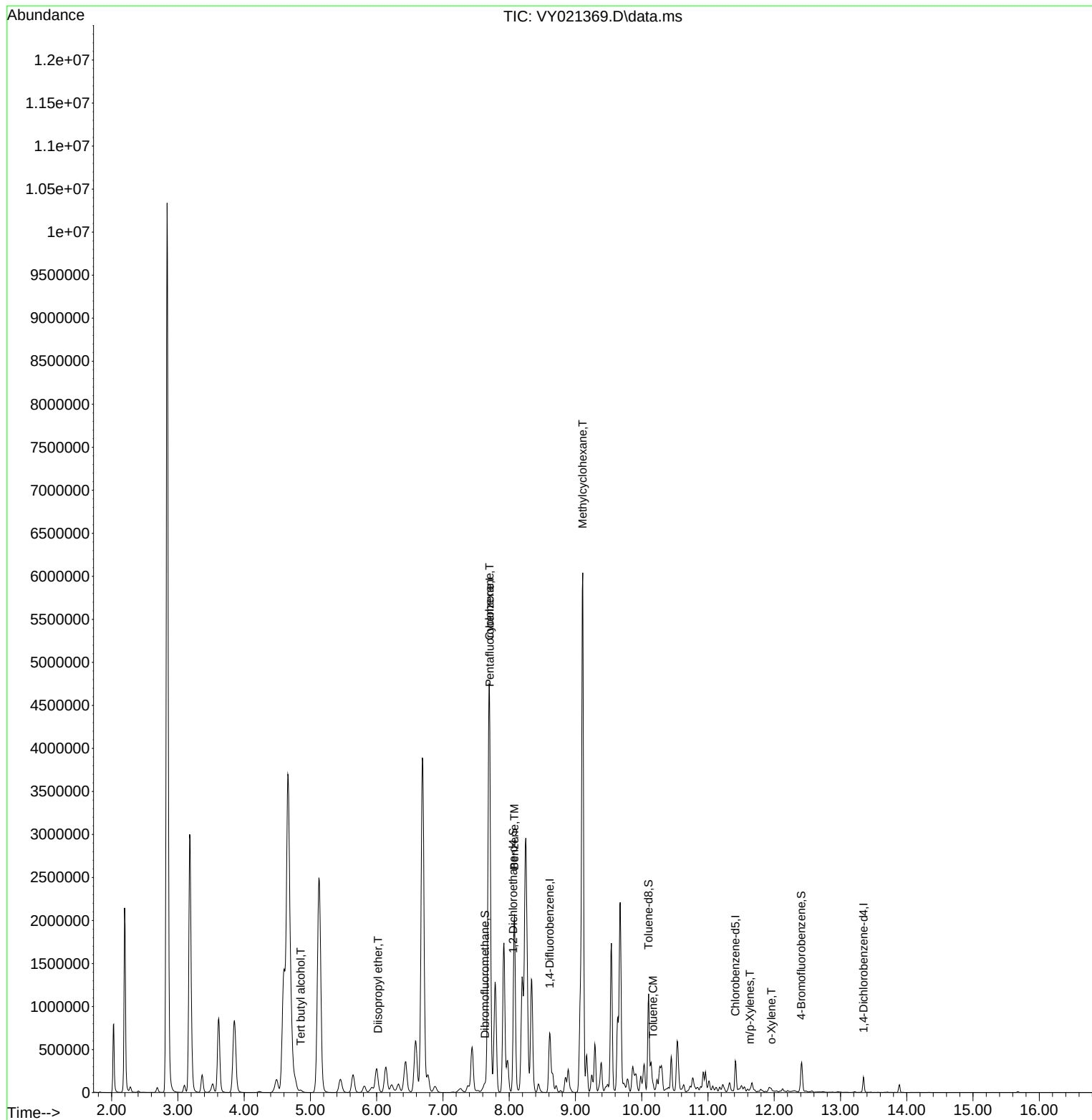
Internal Standards						
1) Pentafluorobenzene	7.707	168	116202	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.610	114	199239	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	161221	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	42795	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	66778	50.658	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 101.320%	
35) Dibromofluoromethane	7.634	113	65580	50.206	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 100.420%	
50) Toluene-d8	10.103	98	268179	53.124	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	= 106.240%	
62) 4-Bromofluorobenzene	12.408	95	60362	35.529	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	= 71.060%	
Target Compounds						
					Qvalue	
11) Tert butyl alcohol	4.854	59	47017	463.704	ug/l	# 72
22) Diisopropyl ether	6.019	45	31233	7.281	ug/l	94
31) Cyclohexane	7.701	56	2577430	1109.012	ug/l	98
39) Methylcyclohexane	9.110	83	2385301	961.158	ug/l	99
40) Benzene	8.079	78	1986204	342.443	ug/l	100
52) Toluene	10.170	92	34037	9.446	ug/l	98
68) m/p-Xylenes	11.633	106	5793	2.403	ug/l	96
69) o-Xylene	11.957	106	7367	3.262	ug/l	91

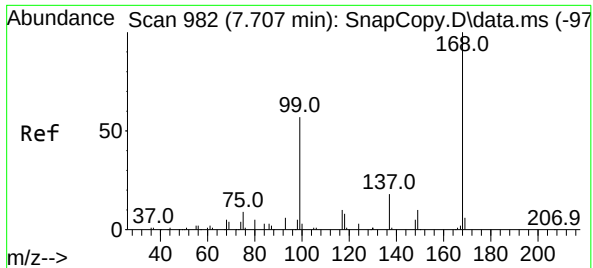
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021369.D
Acq On : 27 Feb 2025 19:29
Operator : SY/MD
Sample : Q1448-04
Misc : 6.54g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P3

Quant Time: Feb 28 00:44:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

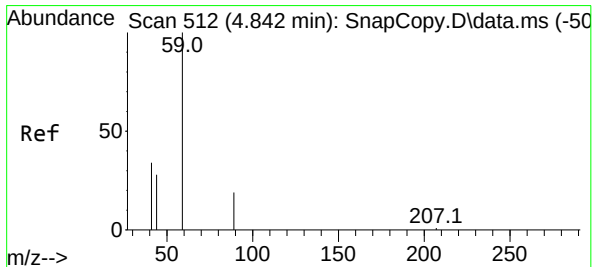
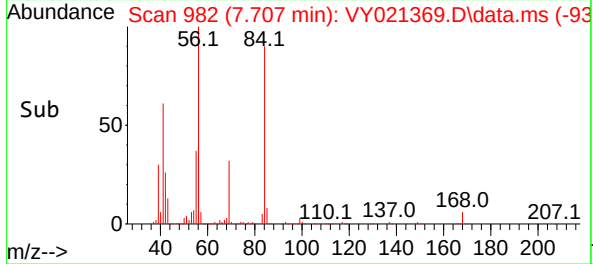
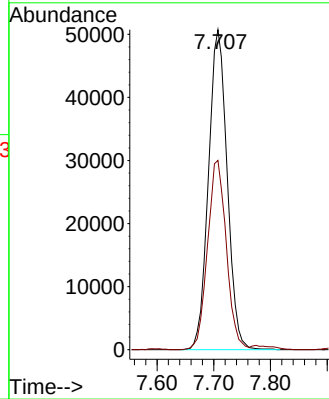
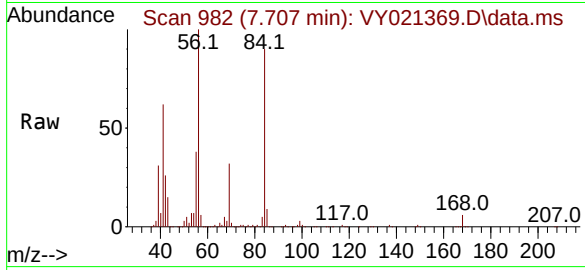




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 91
Delta R.T. 0.000 min
Lab File: VY021369.D
Acq: 27 Feb 2025 19:29

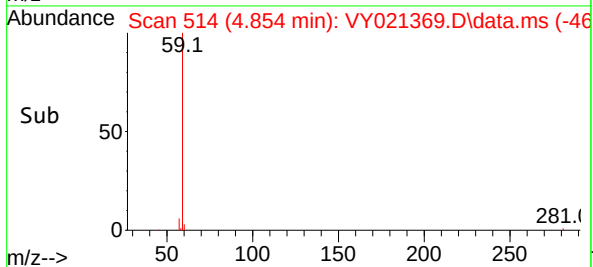
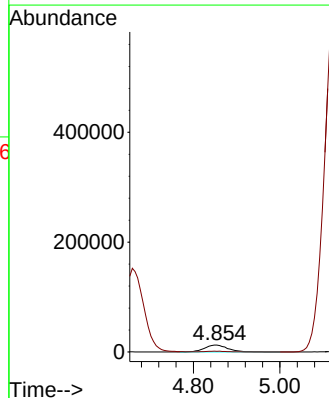
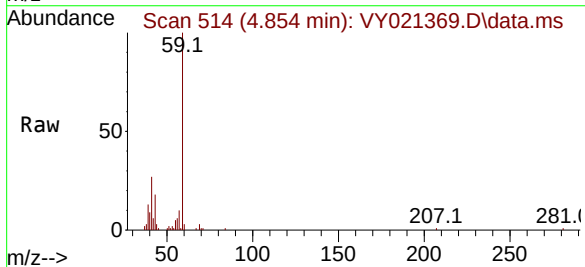
Instrument :
MSVOA_Y
ClientSampleId :
P3

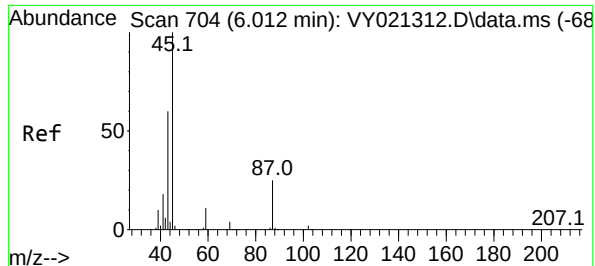
Tgt Ion:168 Resp: 116202
Ion Ratio Lower Upper
168 100
99 59.2 47.1 70.7



#11
Tert butyl alcohol
Concen: 463.704 ug/l
RT: 4.854 min Scan# 514
Delta R.T. 0.000 min
Lab File: VY021369.D
Acq: 27 Feb 2025 19:29

Tgt Ion: 59 Resp: 47017
Ion Ratio Lower Upper
59 100
57 0.0 8.3 12.5#





#22

Diisopropyl ether

Concen: 7.281 ug/l

RT: 6.019 min Scan# 704

Delta R.T. 0.006 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

Instrument :

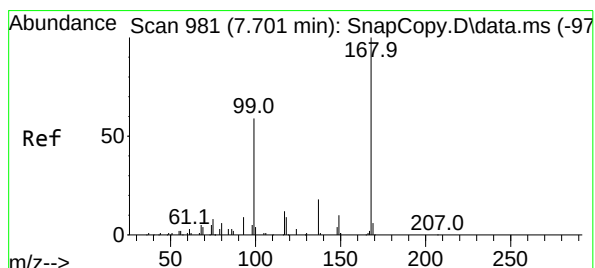
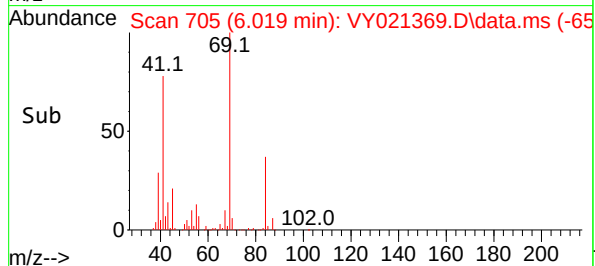
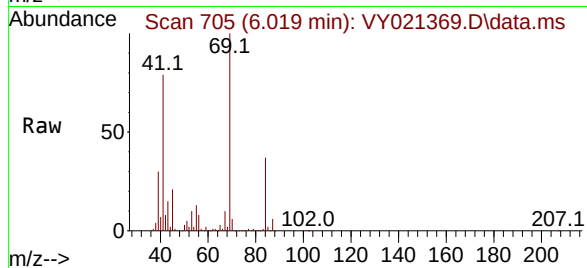
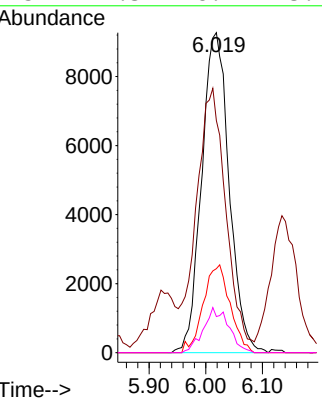
MSVOA_Y

ClientSampleId :

P3

Tgt Ion: 45 Resp: 31233

Ion	Ratio	Lower	Upper
45	100		
43	53.9	48.2	72.4
87	26.3	20.3	30.5
59	11.3	8.7	13.1



#31

Cyclohexane

Concen: 1109.012 ug/l

RT: 7.701 min Scan# 981

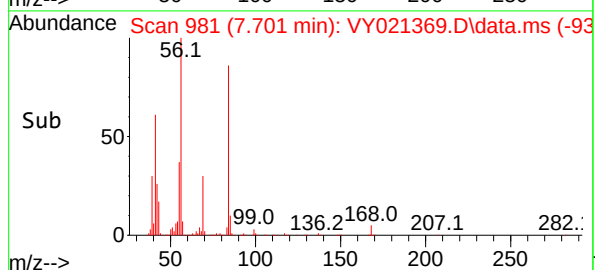
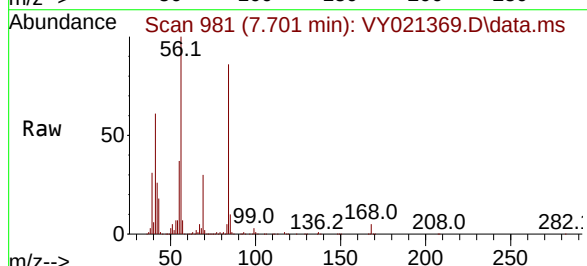
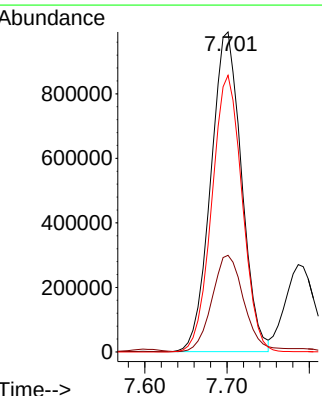
Delta R.T. 0.000 min

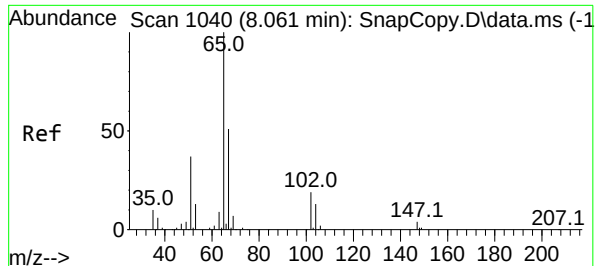
Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

Tgt Ion: 56 Resp: 2577430

Ion	Ratio	Lower	Upper
56	100		
69	30.0	26.2	39.4
84	86.5	70.2	105.4





#33

1,2-Dichloroethane-d4

Concen: 50.658 ug/l

RT: 8.061 min Scan# 110

Delta R.T. 0.000 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

Instrument :

MSVOA_Y

ClientSampleId :

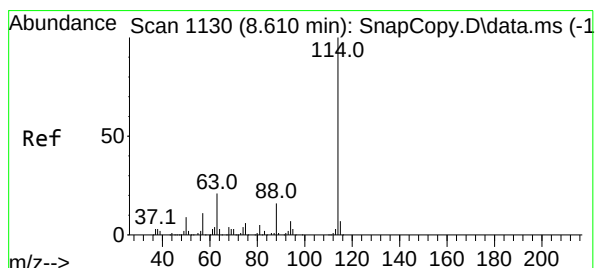
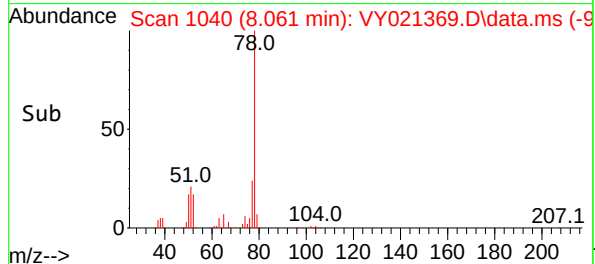
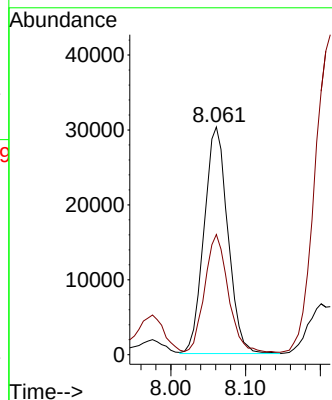
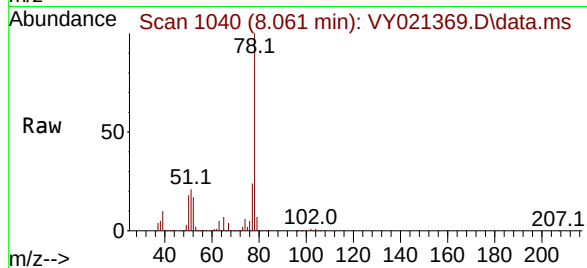
P3

Tgt Ion: 65 Resp: 66778

Ion Ratio Lower Upper

65 100

67 51.1 0.0 103.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.610 min Scan# 1130

Delta R.T. -0.006 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

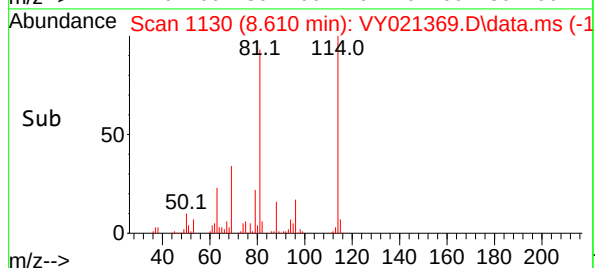
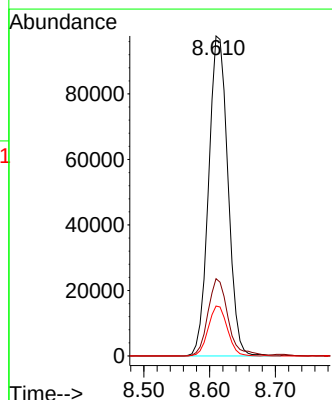
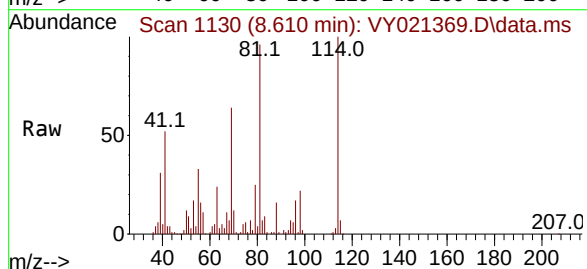
Tgt Ion: 114 Resp: 199239

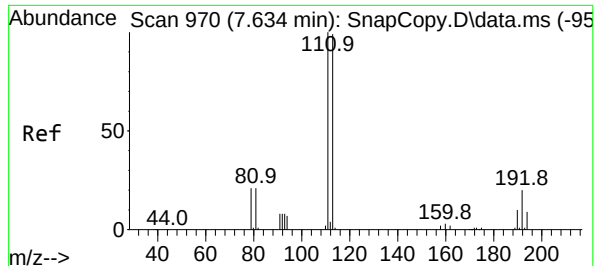
Ion Ratio Lower Upper

114 100

63 24.2 0.0 42.2

88 15.6 0.0 29.8





#35

Dibromofluoromethane

Concen: 50.206 ug/l

RT: 7.634 min Scan# 91

Delta R.T. 0.000 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

Instrument :

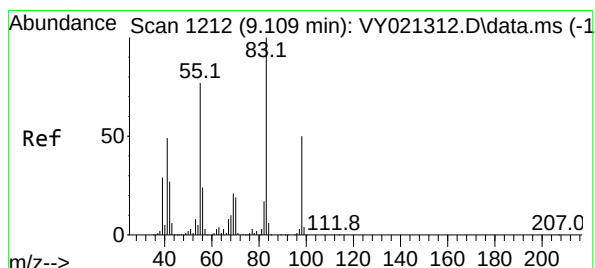
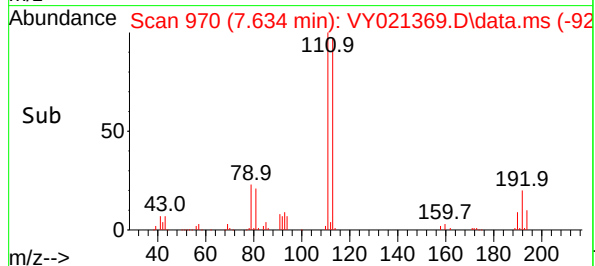
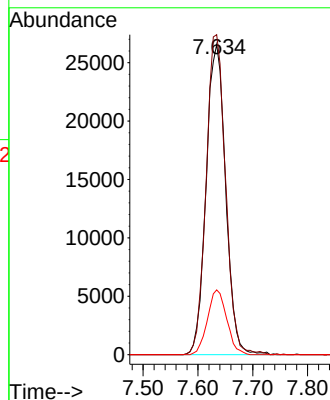
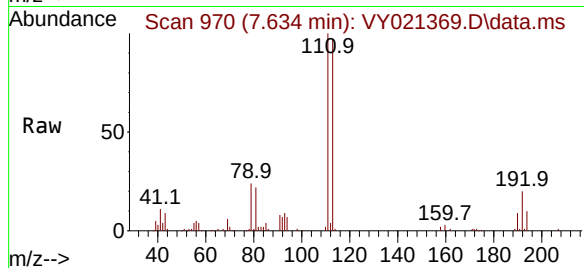
MSVOA_Y

ClientSampleId :

P3

Tgt Ion:113 Resp: 65580

Ion	Ratio	Lower	Upper
113	100		
111	102.5	81.0	121.6
192	20.7	15.8	23.8



#39

Methylcyclohexane

Concen: 961.158 ug/l

RT: 9.110 min Scan# 1212

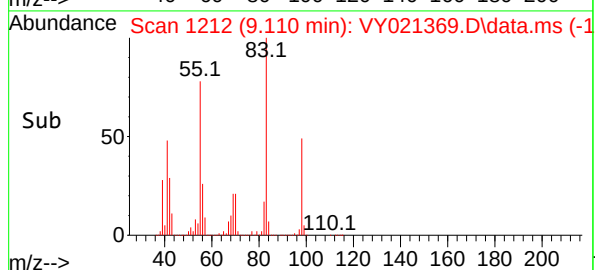
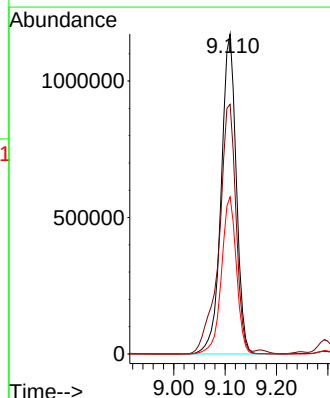
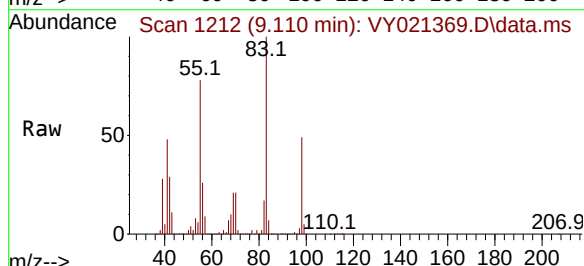
Delta R.T. 0.000 min

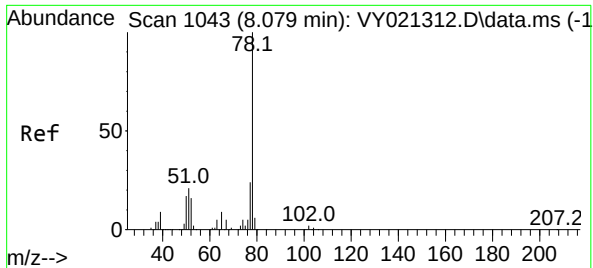
Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

Tgt Ion: 83 Resp: 2385301

Ion	Ratio	Lower	Upper
83	100		
55	78.0	61.3	91.9
98	49.1	39.9	59.9

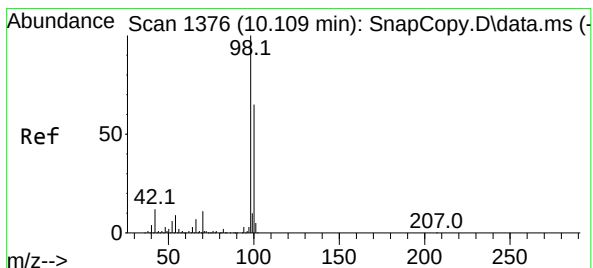
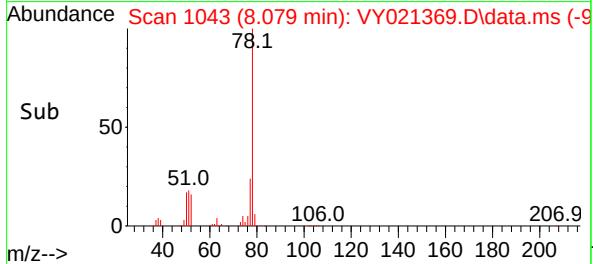
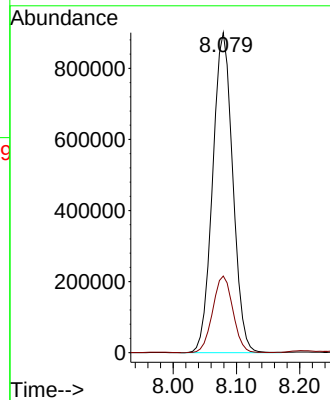
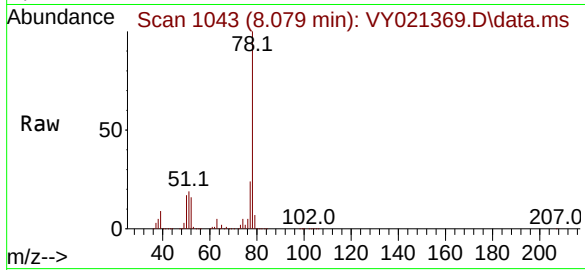




#40
Benzene
Concen: 342.443 ug/l
RT: 8.079 min Scan# 1043
Delta R.T. 0.000 min
Lab File: VY021369.D
Acq: 27 Feb 2025 19:29

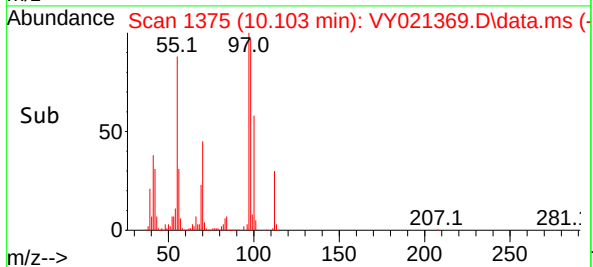
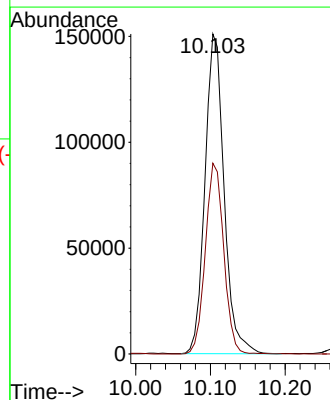
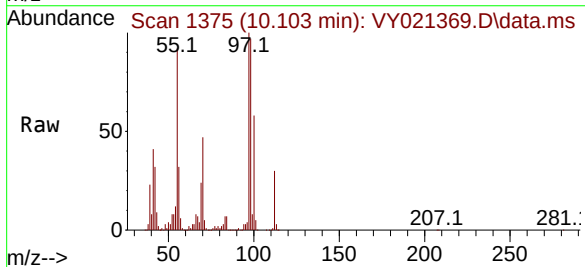
Instrument :
MSVOA_Y
ClientSampleId :
P3

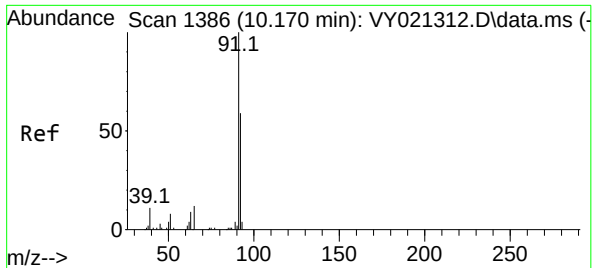
Tgt Ion: 78 Resp: 1986204
Ion Ratio Lower Upper
78 100
77 23.9 19.2 28.8



#50
Toluene-d8
Concen: 53.124 ug/l
RT: 10.103 min Scan# 1375
Delta R.T. 0.000 min
Lab File: VY021369.D
Acq: 27 Feb 2025 19:29

Tgt Ion: 98 Resp: 268179
Ion Ratio Lower Upper
98 100
100 57.4 52.4 78.6





#52

Toluene

Concen: 9.446 ug/l

RT: 10.170 min Scan# 1

Delta R.T. 0.000 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

Instrument :

MSVOA_Y

ClientSampleId :

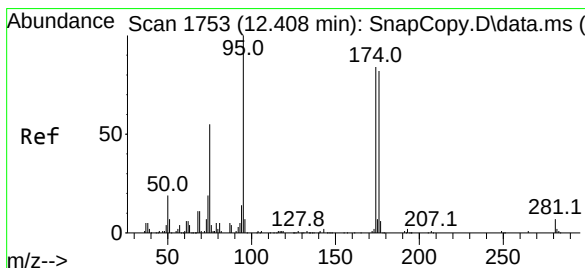
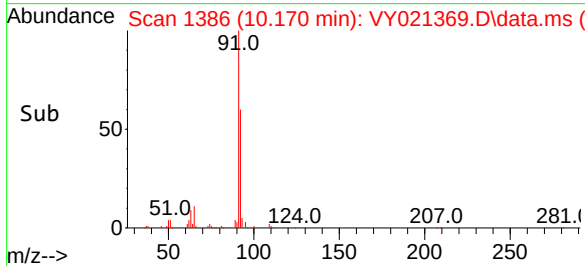
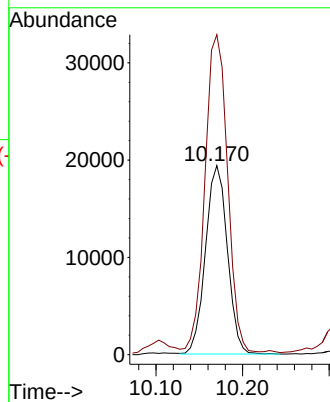
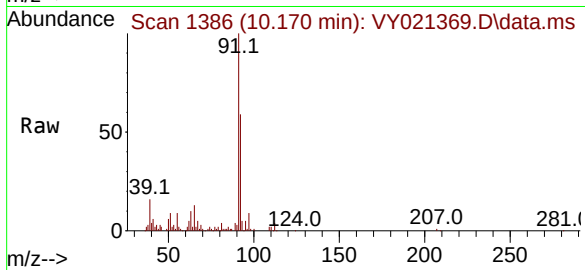
P3

Tgt Ion: 92 Resp: 34037

Ion Ratio Lower Upper

92 100

91 175.4 137.8 206.8



#62

4-Bromofluorobenzene

Concen: 35.529 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. 0.000 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

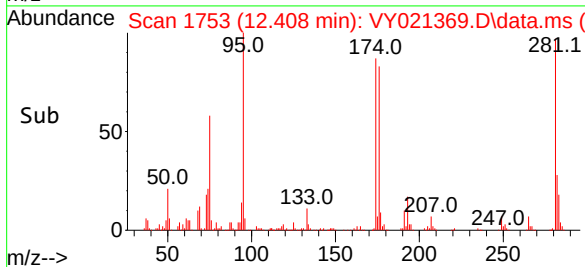
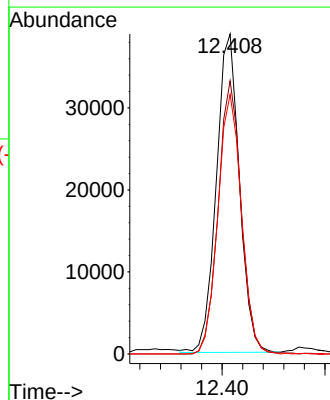
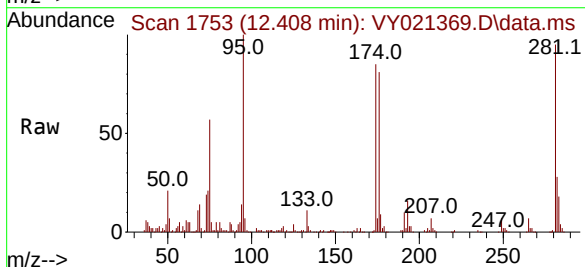
Tgt Ion: 95 Resp: 60362

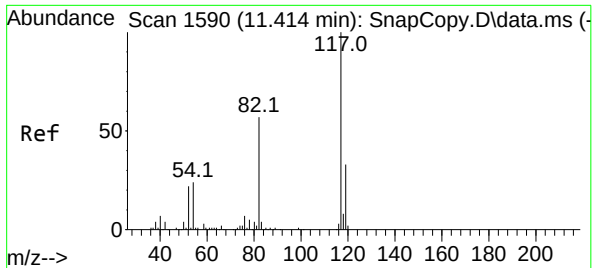
Ion Ratio Lower Upper

95 100

174 85.5 0.0 168.0

176 83.3 0.0 162.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.414 min Scan# 1590

Delta R.T. 0.000 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

Instrument :

MSVOA_Y

ClientSampleId :

P3

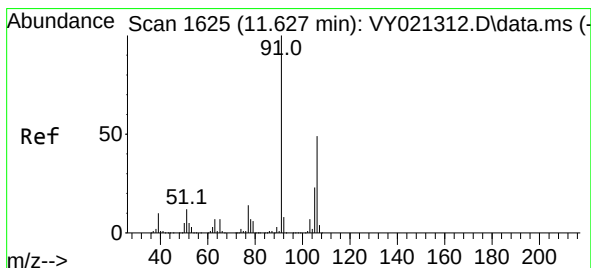
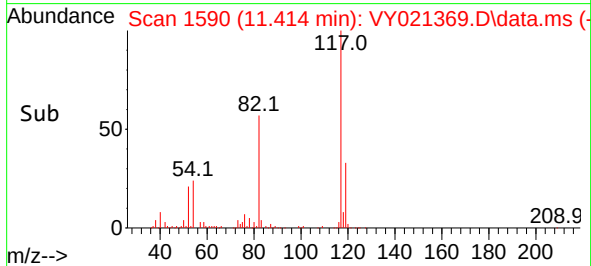
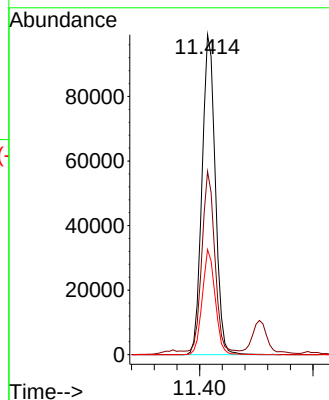
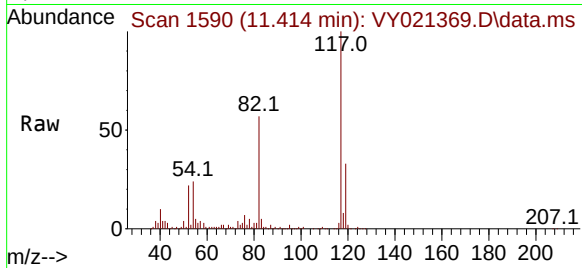
Tgt Ion:117 Resp: 161221

Ion Ratio Lower Upper

117 100

82 56.3 46.2 69.4

119 32.9 24.9 37.3



#68

m/p-Xylenes

Concen: 2.403 ug/l

RT: 11.633 min Scan# 1626

Delta R.T. 0.006 min

Lab File: VY021369.D

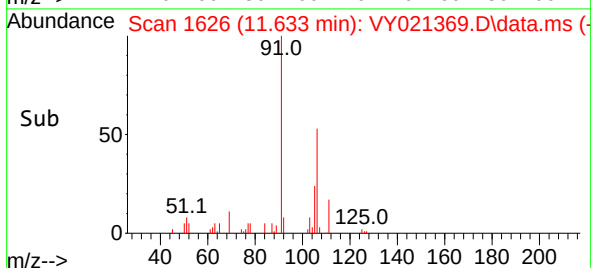
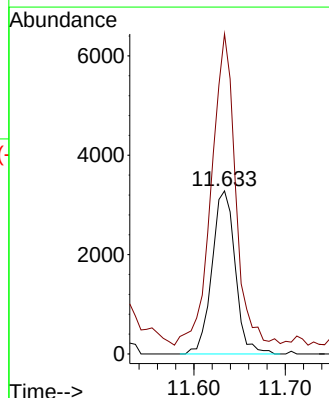
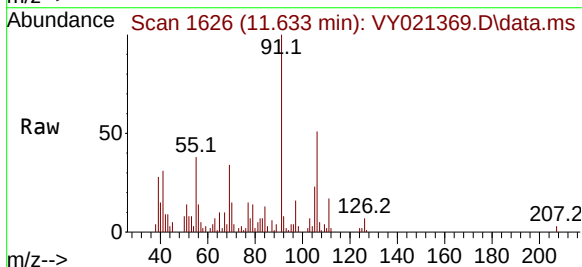
Acq: 27 Feb 2025 19:29

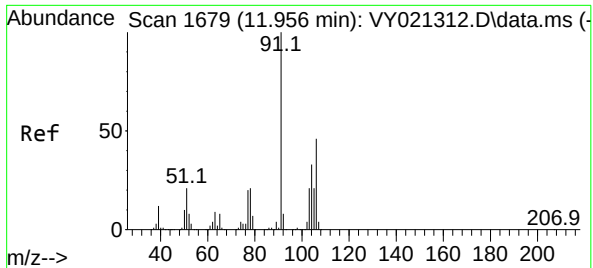
Tgt Ion:106 Resp: 5793

Ion Ratio Lower Upper

106 100

91 198.2 163.9 245.9





#69

o-Xylene

Concen: 3.262 ug/l

RT: 11.957 min Scan# 1

Delta R.T. 0.000 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

Instrument :

MSVOA_Y

ClientSampleId :

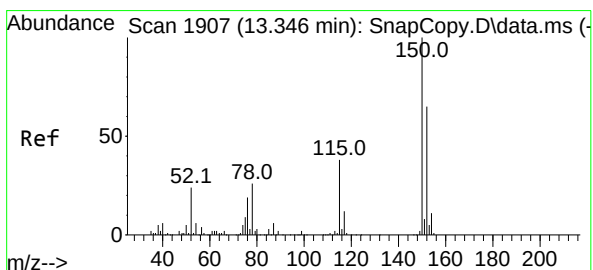
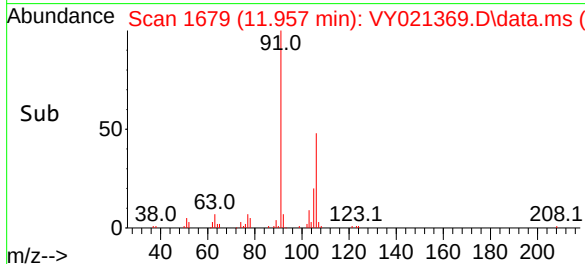
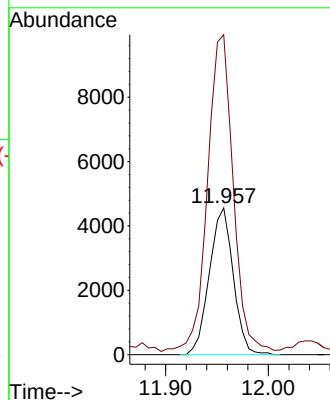
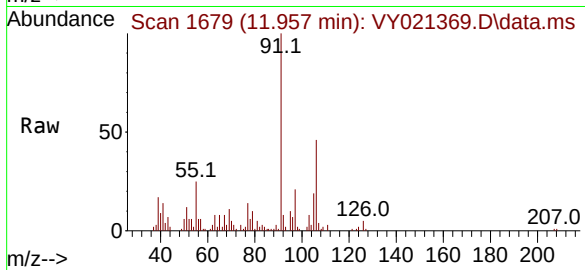
P3

Tgt Ion:106 Resp: 7367

Ion Ratio Lower Upper

106 100

91 230.9 108.1 324.2



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.347 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY021369.D

Acq: 27 Feb 2025 19:29

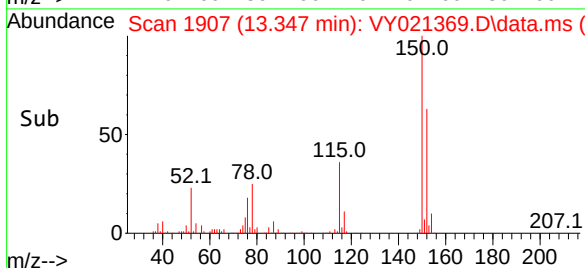
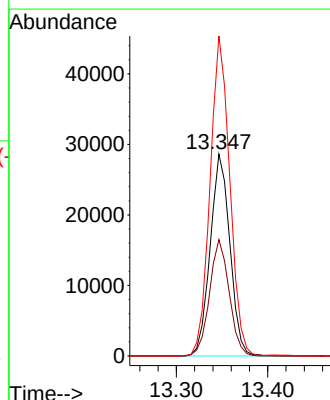
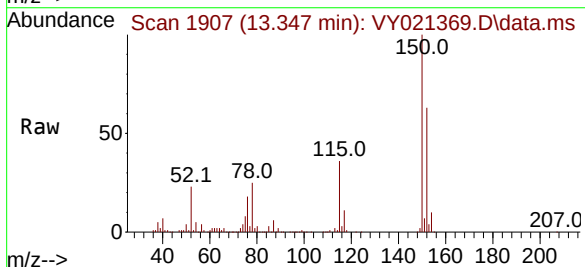
Tgt Ion:152 Resp: 42795

Ion Ratio Lower Upper

152 100

115 57.3 29.3 88.0

150 158.4 0.0 347.4



Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P3ME	SDG No.:	Q1448
Lab Sample ID:	Q1448-04ME	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	86.8
Sample Wt/Vol:	6.08	Units: g	Final Vol: 10000 uL
Soil Aliquot Vol:	100	uL	Test: VOCMS Group2
GC Column:	DB-624UI	ID : 0.18	Level : MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045133.D	1		03/05/25 11:40	VX030525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	110	UD	110	470	ug/Kg
75-01-4	Vinyl Chloride	73.0	UD	73.0	470	ug/Kg
74-83-9	Bromomethane	97.6	UD	97.6	470	ug/Kg
75-00-3	Chloroethane	95.7	UD	95.7	470	ug/Kg
75-65-0	Tert butyl alcohol	1500	UD	1500	2400	ug/Kg
75-35-4	1,1-Dichloroethene	73.9	UD	73.9	470	ug/Kg
67-64-1	Acetone	590	UD	590	2400	ug/Kg
75-15-0	Carbon Disulfide	120	UD	120	470	ug/Kg
1634-04-4	Methyl tert-butyl Ether	63.5	UD	63.5	470	ug/Kg
75-09-2	Methylene Chloride	320	UD	320	950	ug/Kg
156-60-5	trans-1,2-Dichloroethene	79.6	UD	79.6	470	ug/Kg
75-34-3	1,1-Dichloroethane	59.7	UD	59.7	470	ug/Kg
78-93-3	2-Butanone	540	UD	540	2400	ug/Kg
56-23-5	Carbon Tetrachloride	82.4	UD	82.4	470	ug/Kg
156-59-2	cis-1,2-Dichloroethene	57.8	UD	57.8	470	ug/Kg
67-66-3	Chloroform	63.5	UD	63.5	470	ug/Kg
71-55-6	1,1,1-Trichloroethane	73.9	UD	73.9	470	ug/Kg
71-43-2	Benzene	1800	D	68.2	470	ug/Kg
107-06-2	1,2-Dichloroethane	57.8	UD	57.8	470	ug/Kg
79-01-6	Trichloroethene	71.1	UD	71.1	470	ug/Kg
78-87-5	1,2-Dichloropropane	62.5	UD	62.5	470	ug/Kg
75-27-4	Bromodichloromethane	53.1	UD	53.1	470	ug/Kg
108-10-1	4-Methyl-2-Pentanone	410	UD	410	2400	ug/Kg
108-88-3	Toluene	140	JD	63.5	470	ug/Kg
10061-02-6	t-1,3-Dichloropropene	56.8	UD	56.8	470	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	54.0	UD	54.0	470	ug/Kg
79-00-5	1,1,2-Trichloroethane	79.6	UD	79.6	470	ug/Kg
591-78-6	2-Hexanone	450	UD	450	2400	ug/Kg
124-48-1	Dibromochloromethane	61.6	UD	61.6	470	ug/Kg
127-18-4	Tetrachloroethene	84.3	UD	84.3	470	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P3ME	SDG No.:	Q1448
Lab Sample ID:	Q1448-04ME	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	86.8
Sample Wt/Vol:	6.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOCMS Group2
GC Column:	DB-624UI ID : 0.18	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045133.D	1		03/05/25 11:40	VX030525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	70.1	UD	70.1	470	ug/Kg
100-41-4	Ethyl Benzene	58.7	UD	58.7	470	ug/Kg
179601-23-1	m/p-Xylenes	150	JD	130	950	ug/Kg
95-47-6	o-Xylene	220	JD	66.3	470	ug/Kg
100-42-5	Styrene	56.8	UD	56.8	470	ug/Kg
75-25-2	Bromoform	76.7	UD	76.7	470	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	100	UD	100	470	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.2		70 (63) - 130 (155)	98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		70 (70) - 130 (134)	98%	SPK: 50
2037-26-5	Toluene-d8	50.7		70 (74) - 130 (123)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.6		70 (38) - 130 (136)	109%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	67300	5.544			
540-36-3	1,4-Difluorobenzene	129000	6.757			
3114-55-4	Chlorobenzene-d5	115000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	55000	12.024			

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_X\Data\VX030525\
 Data File : VX045133.D
 Acq On : 05 Mar 2025 11:40
 Operator : JC/MD
 Sample : Q1448-04ME
 Misc : 6.08g/10mL/100uL/5.00mL/MSVOA_X/MEOH
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 P3ME

Quant Time: Mar 06 01:02:05 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 2025
 Response via : Initial Calibration

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

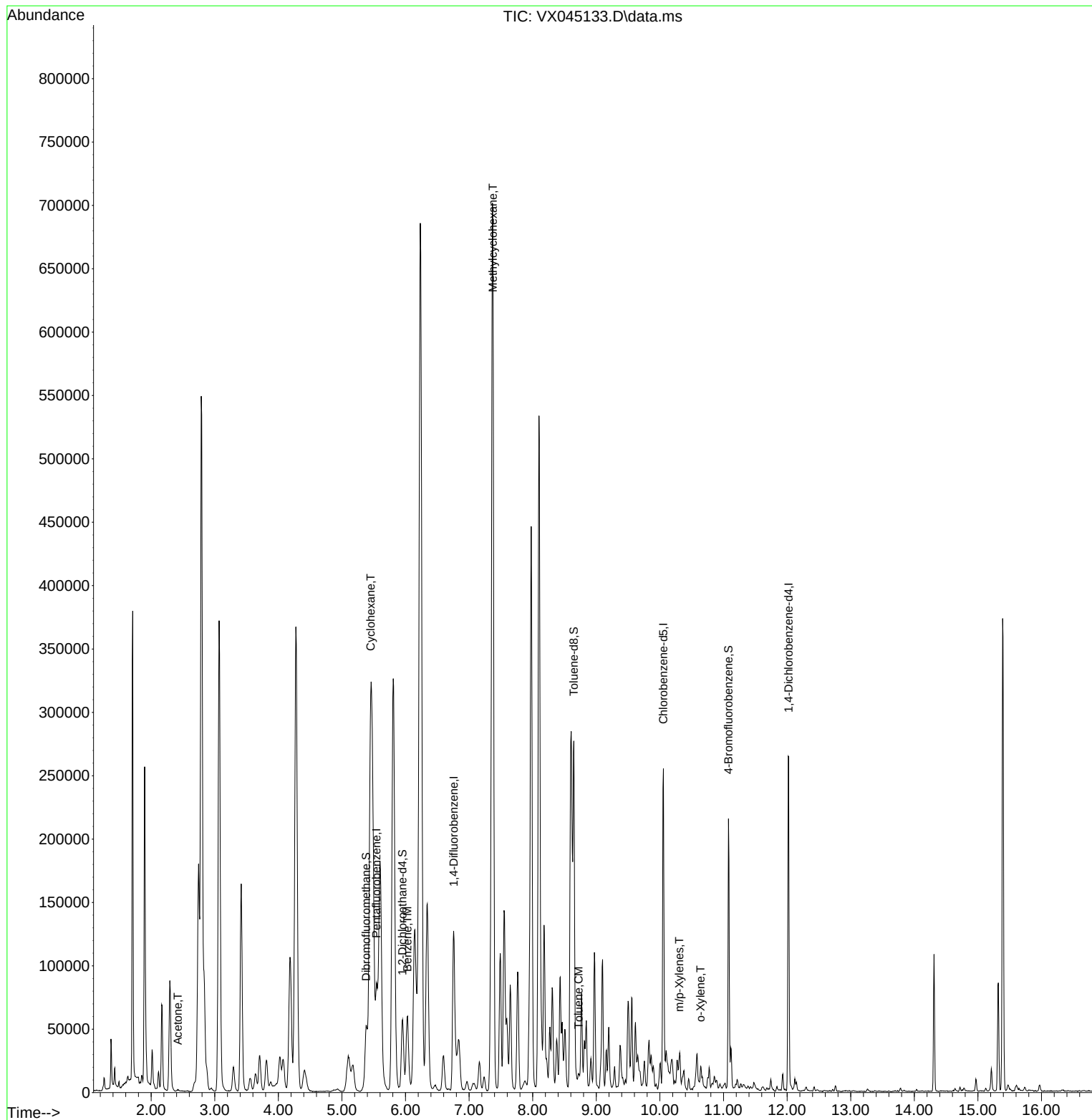
Internal Standards						
1) Pentafluorobenzene	5.544	168	67331	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	128533	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	115484	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.024	152	55033	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	52674	49.182	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	98.360%		
35) Dibromofluoromethane	5.379	113	42058	48.935	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	97.860%		
50) Toluene-d8	8.647	98	157997	50.707	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	101.420%		
62) 4-Bromofluorobenzene	11.079	95	56403	54.627	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	109.260%		
Target Compounds					Qvalue	
16) Acetone	2.416	43	1522	3.063	ug/l	96
31) Cyclohexane	5.452	56	229490	157.496	ug/l	96
39) Methylcyclohexane	7.373	83	305736	216.477	ug/l	98
40) Benzene	6.031	78	70701	18.996	ug/l	98
52) Toluene	8.720	92	3128	1.432	ug/l	90
68) m/p-Xylenes	10.305	106	2532	1.624	ug/l	83
69) o-Xylene	10.640	106	3642	2.317	ug/l	90

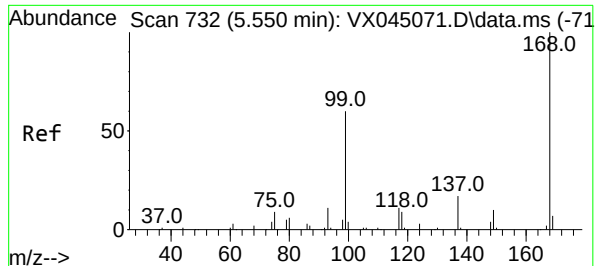
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
Data File : VX045133.D
Acq On : 05 Mar 2025 11:40
Operator : JC/MD
Sample : Q1448-04ME
Misc : 6.08g/10mL/100uL/5.00mL/MSVOA_X/MEOH
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
P3ME

Quant Time: Mar 06 01:02:05 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 2025
Response via : Initial Calibration

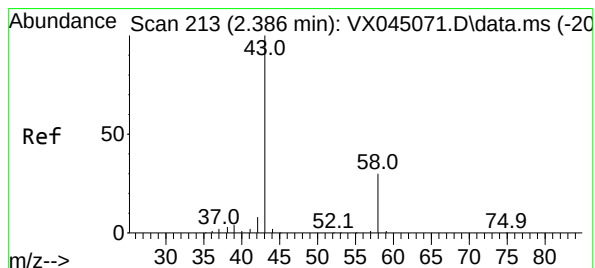
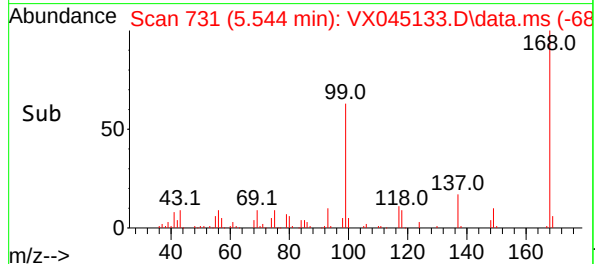
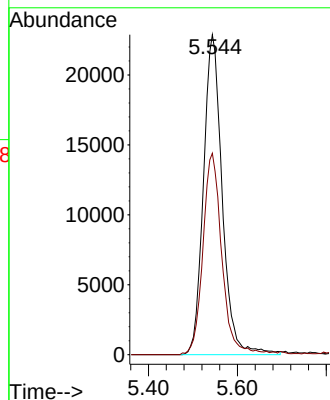
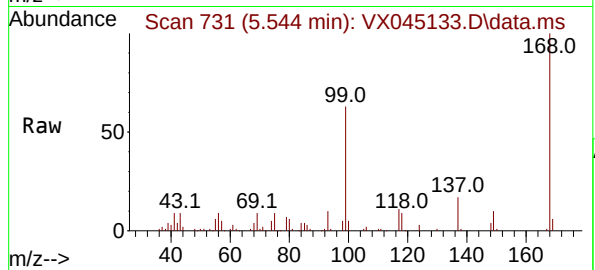




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.544 min Scan# 731
Delta R.T. -0.006 min
Lab File: VX045133.D
Acq: 05 Mar 2025 11:40

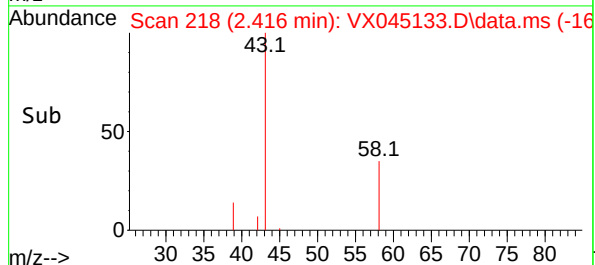
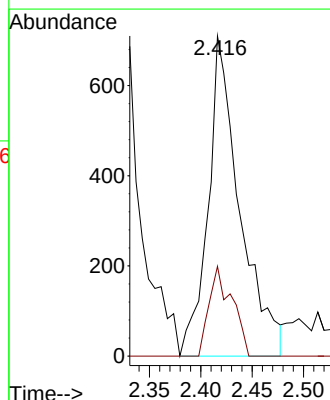
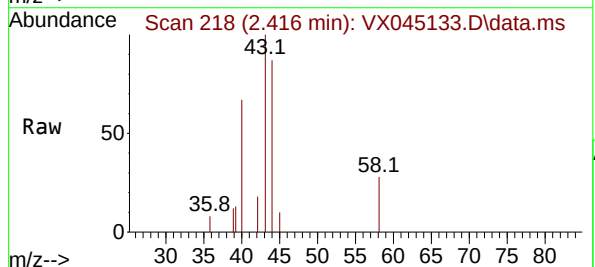
Instrument :
MSVOA_X
ClientSampleId :
P3ME

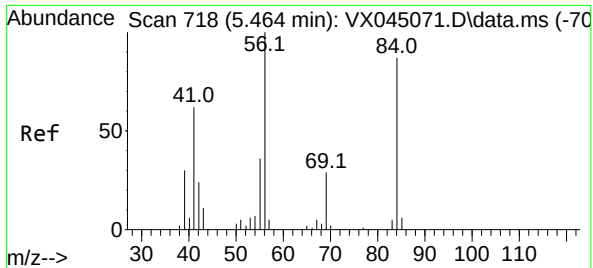
Tgt Ion:168 Resp: 67331
Ion Ratio Lower Upper
168 100
99 63.0 48.2 72.4



#16
Acetone
Concen: 3.063 ug/l
RT: 2.416 min Scan# 218
Delta R.T. 0.030 min
Lab File: VX045133.D
Acq: 05 Mar 2025 11:40

Tgt Ion: 43 Resp: 1522
Ion Ratio Lower Upper
43 100
58 28.0 24.2 36.4

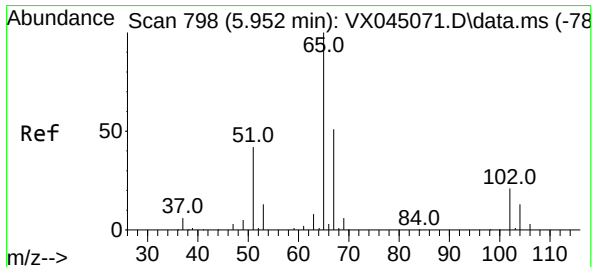
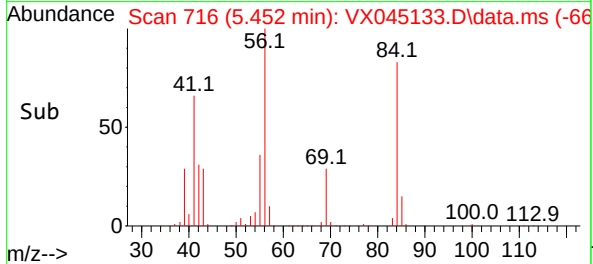
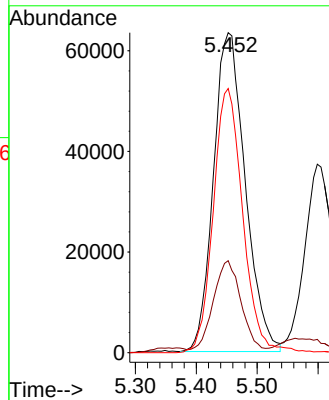
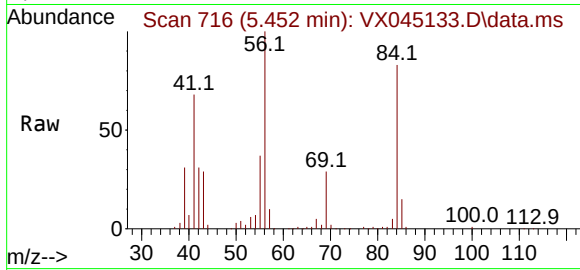




#31
Cyclohexane
Concen: 157.496 ug/l
RT: 5.452 min Scan# 716
Delta R.T. -0.012 min
Lab File: VX045133.D
Acq: 05 Mar 2025 11:40

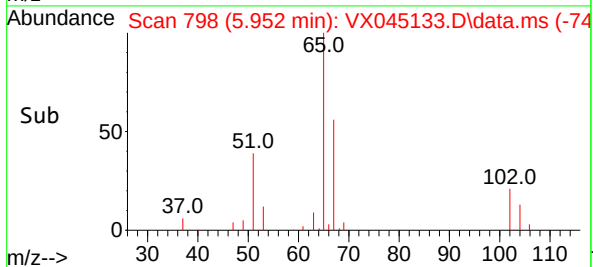
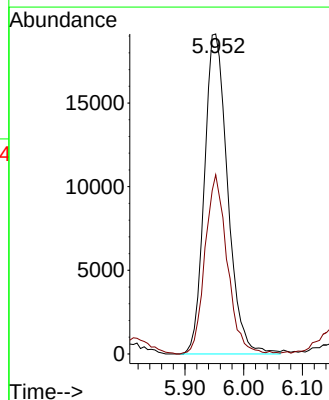
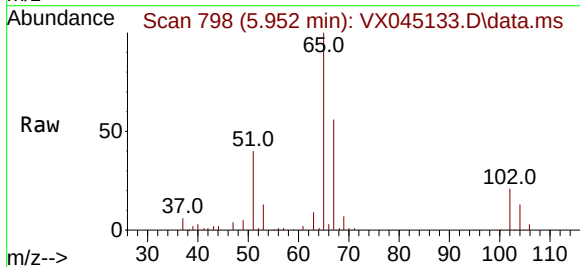
Instrument :
MSVOA_X
ClientSampleId :
P3ME

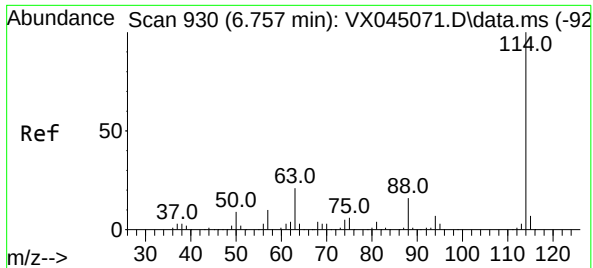
Tgt Ion: 56 Resp: 229490
Ion Ratio Lower Upper
56 100
69 27.4 23.4 35.2
84 82.7 69.4 104.2



#33
1,2-Dichloroethane-d4
Concen: 49.182 ug/l
RT: 5.952 min Scan# 798
Delta R.T. 0.000 min
Lab File: VX045133.D
Acq: 05 Mar 2025 11:40

Tgt Ion: 65 Resp: 52674
Ion Ratio Lower Upper
65 100
67 53.4 0.0 106.2

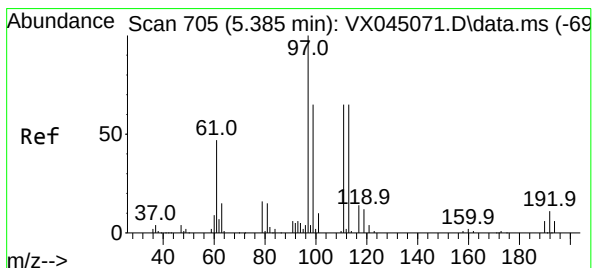
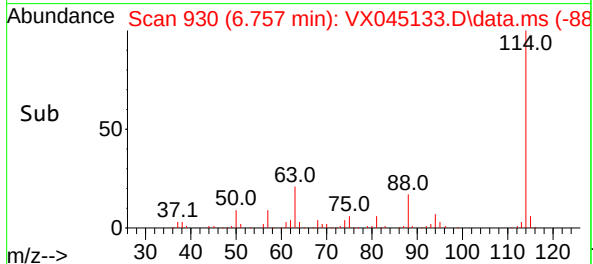
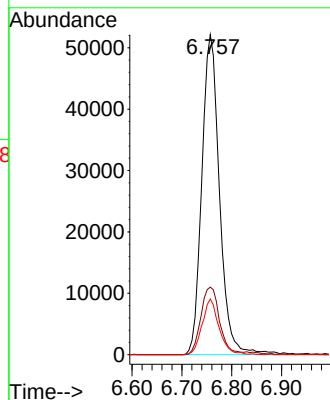
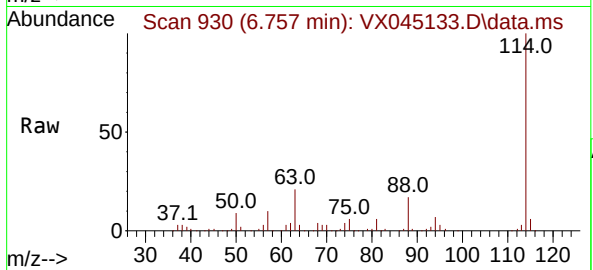




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 91
Delta R.T. 0.000 min
Lab File: VX045133.D
Acq: 05 Mar 2025 11:40

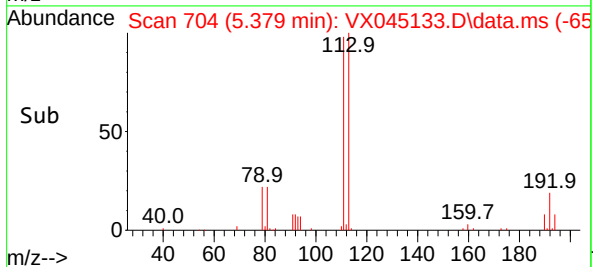
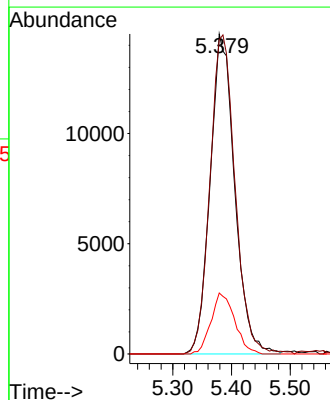
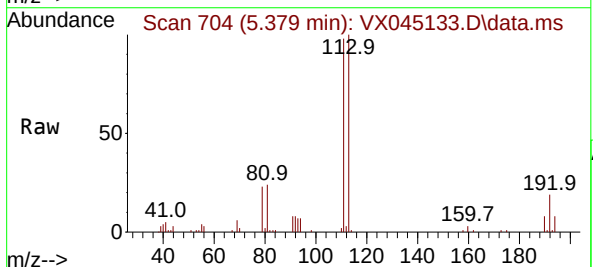
Instrument :
MSVOA_X
ClientSampleId :
P3ME

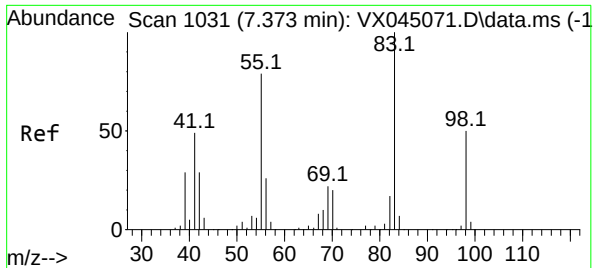
Tgt Ion:114 Resp: 128533
Ion Ratio Lower Upper
114 100
63 21.1 0.0 41.8
88 17.4 0.0 32.8



#35
Dibromofluoromethane
Concen: 48.935 ug/l
RT: 5.379 min Scan# 704
Delta R.T. -0.006 min
Lab File: VX045133.D
Acq: 05 Mar 2025 11:40

Tgt Ion:113 Resp: 42058
Ion Ratio Lower Upper
113 100
111 102.2 81.8 122.6
192 18.4 14.3 21.5





#39

Methylcyclohexane

Concen: 216.477 ug/l

RT: 7.373 min Scan# 1031

Delta R.T. 0.000 min

Lab File: VX045133.D

Acq: 05 Mar 2025 11:40

Instrument :

MSVOA_X

ClientSampleId :

P3ME

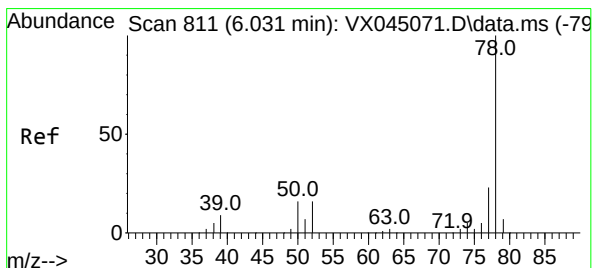
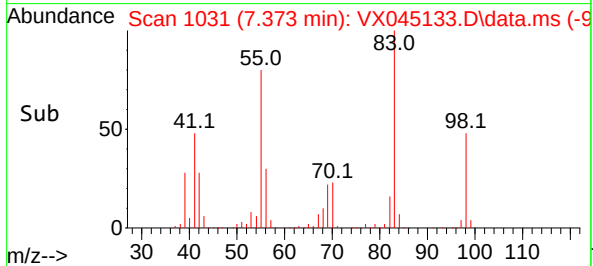
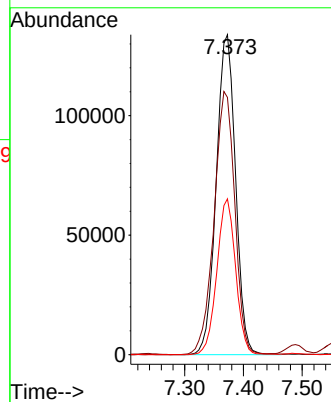
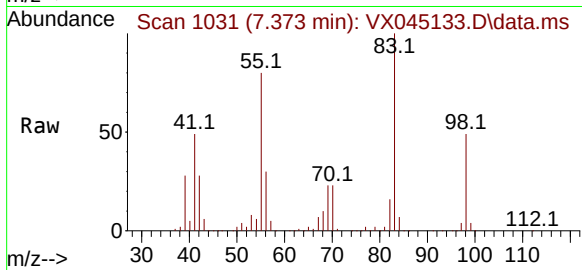
Tgt Ion: 83 Resp: 305736

Ion Ratio Lower Upper

83 100

55 80.3 63.0 94.4

98 48.7 39.7 59.5



#40

Benzene

Concen: 18.996 ug/l

RT: 6.031 min Scan# 811

Delta R.T. 0.000 min

Lab File: VX045133.D

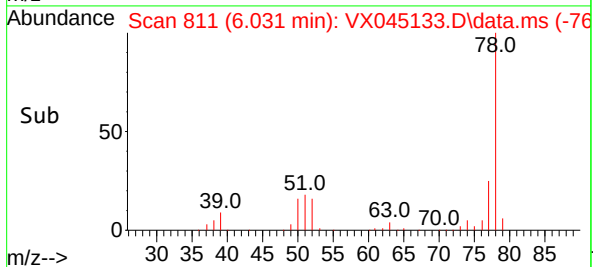
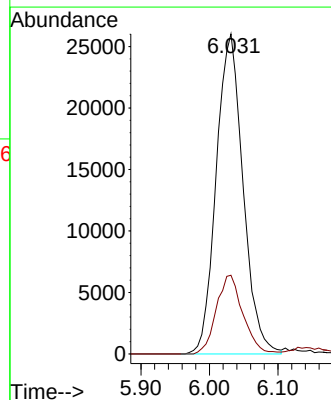
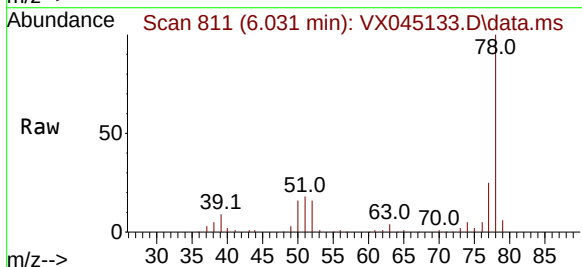
Acq: 05 Mar 2025 11:40

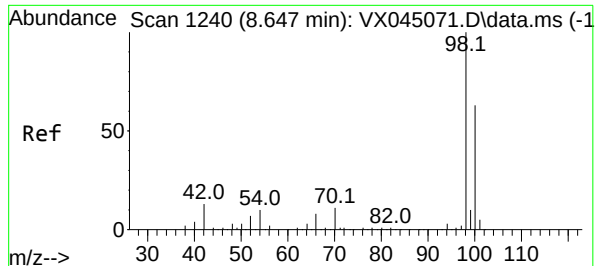
Tgt Ion: 78 Resp: 70701

Ion Ratio Lower Upper

78 100

77 24.6 18.8 28.2





#50

Toluene-d8

Concen: 50.707 ug/l

RT: 8.647 min Scan# 1240

Delta R.T. 0.000 min

Lab File: VX045133.D

Acq: 05 Mar 2025 11:40

Instrument :

MSVOA_X

ClientSampleId :

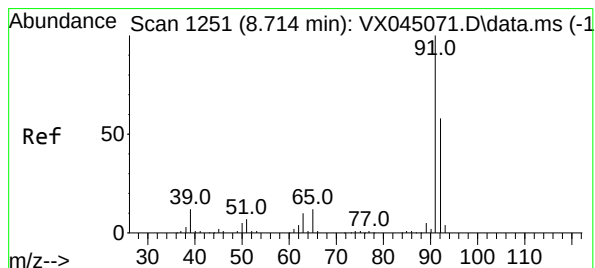
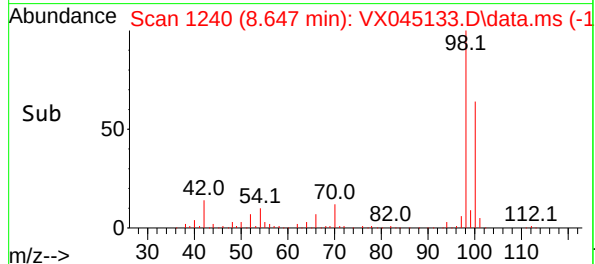
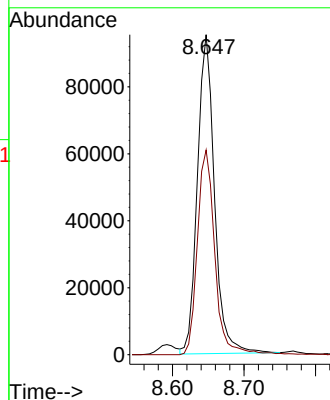
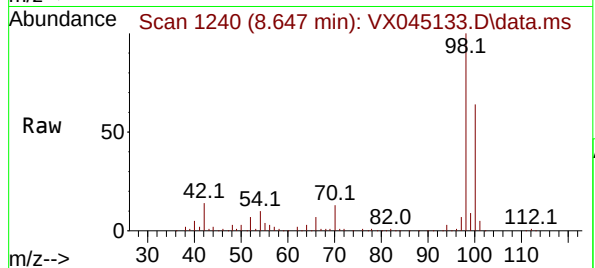
P3ME

Tgt Ion: 98 Resp: 157997

Ion Ratio Lower Upper

98 100

100 66.0 52.0 78.0



#52

Toluene

Concen: 1.432 ug/l

RT: 8.720 min Scan# 1252

Delta R.T. 0.006 min

Lab File: VX045133.D

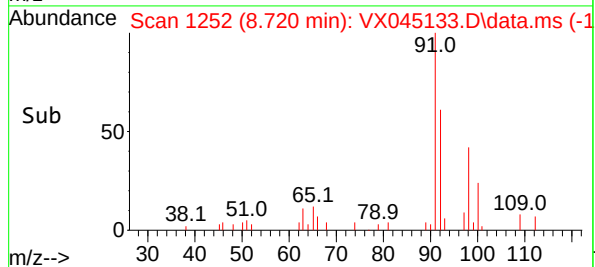
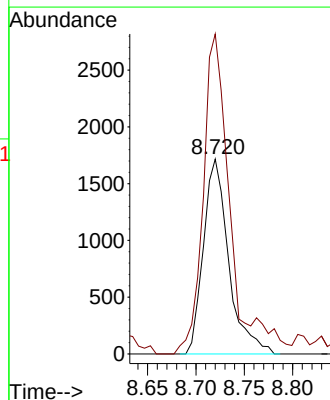
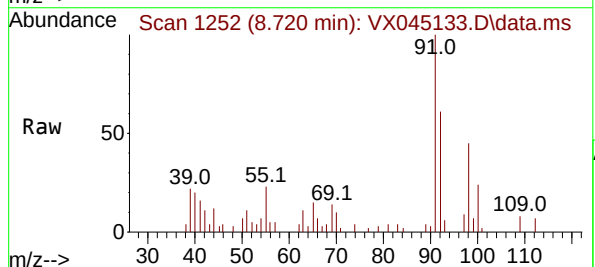
Acq: 05 Mar 2025 11:40

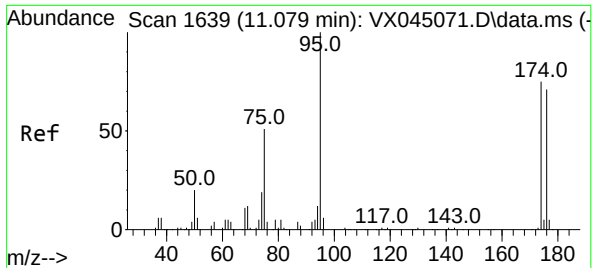
Tgt Ion: 92 Resp: 3128

Ion Ratio Lower Upper

92 100

91 160.1 138.9 208.3





#62

4-Bromofluorobenzene

Concen: 54.627 ug/l

RT: 11.079 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX045133.D

Acq: 05 Mar 2025 11:40

Instrument :

MSVOA_X

ClientSampleId :

P3ME

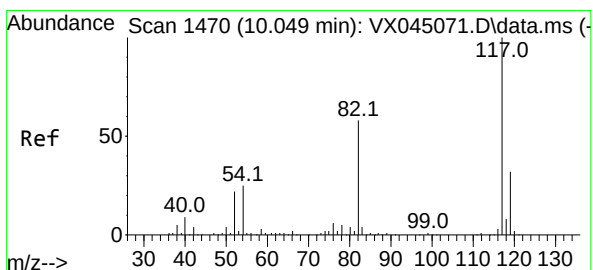
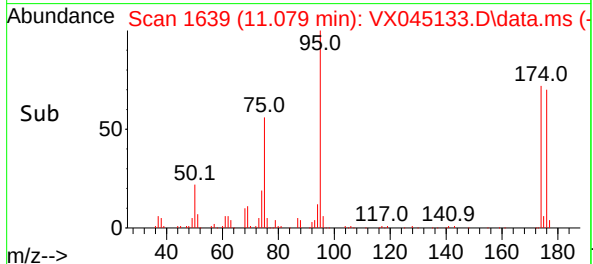
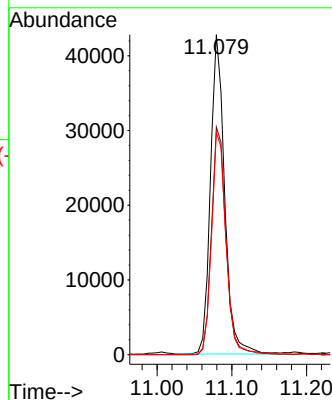
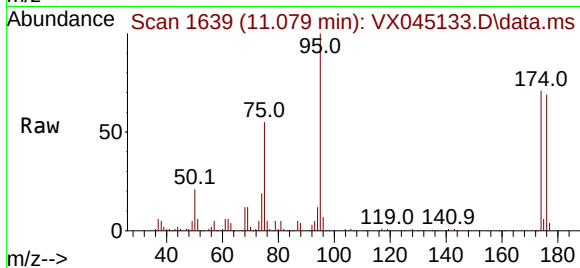
Tgt Ion: 95 Resp: 56403

Ion Ratio Lower Upper

95 100

174 72.6 0.0 148.2

176 71.1 0.0 141.4



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.055 min Scan# 1471

Delta R.T. 0.006 min

Lab File: VX045133.D

Acq: 05 Mar 2025 11:40

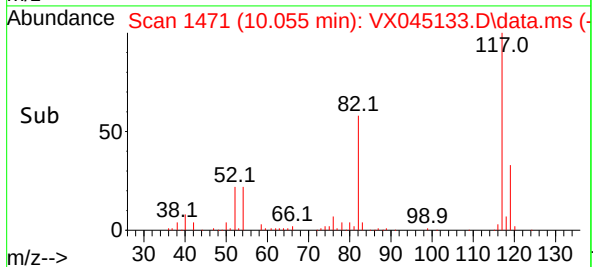
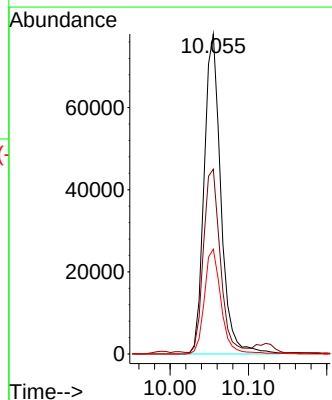
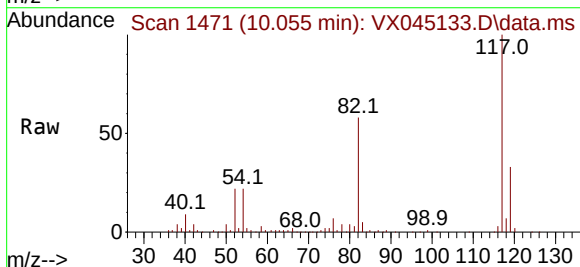
Tgt Ion: 117 Resp: 115484

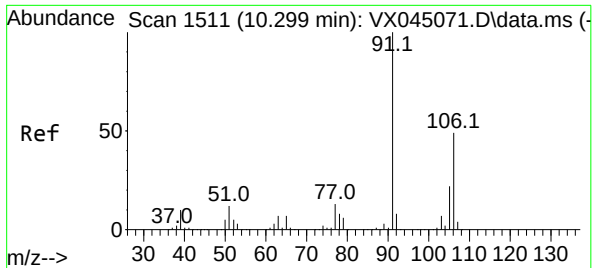
Ion Ratio Lower Upper

117 100

82 57.0 46.3 69.5

119 32.8 25.7 38.5

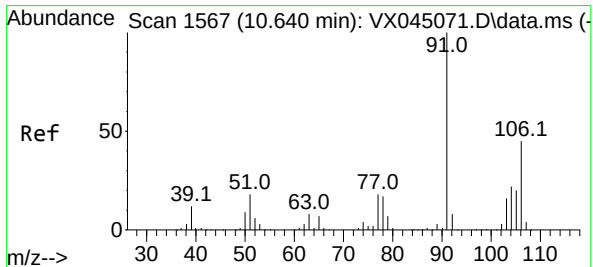
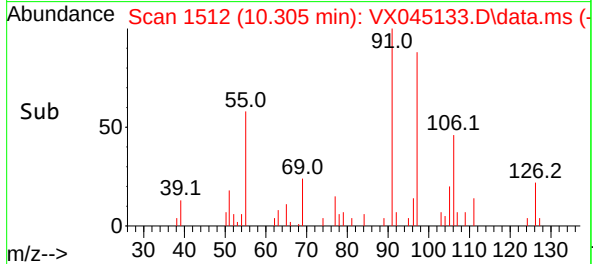
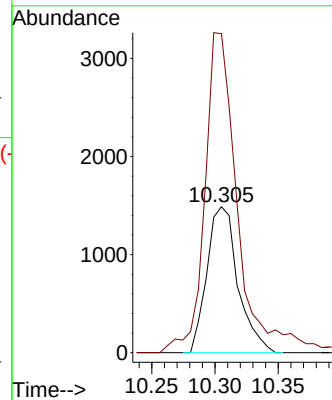
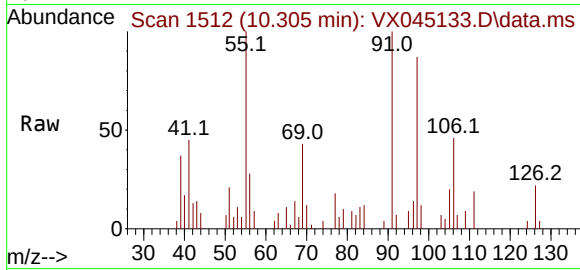




#68
m/p-Xylenes
Concen: 1.624 ug/l
RT: 10.305 min Scan# 1512
Delta R.T. 0.006 min
Lab File: VX045133.D
Acq: 05 Mar 2025 11:40

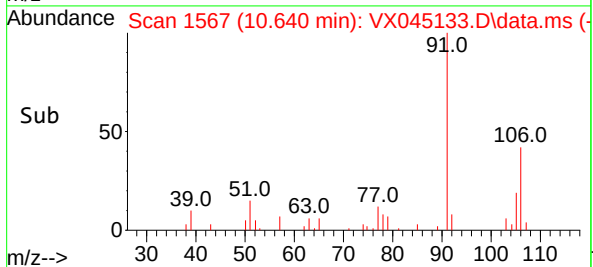
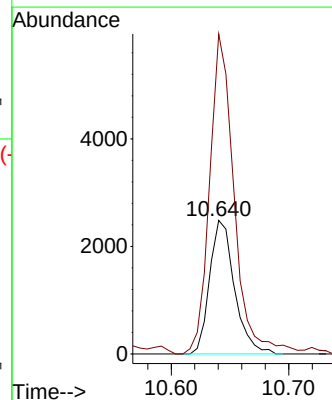
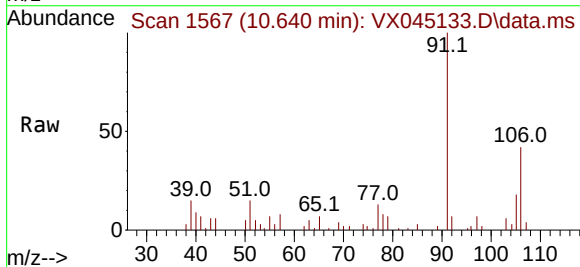
Instrument :
MSVOA_X
ClientSampleId :
P3ME

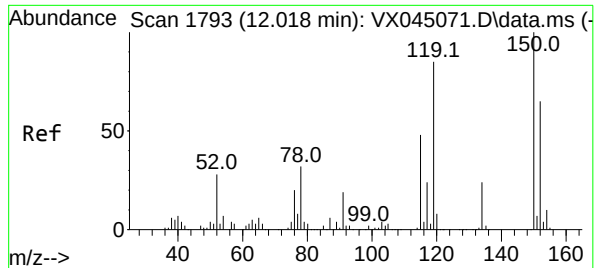
Tgt Ion:106 Resp: 2532
Ion Ratio Lower Upper
106 100
91 233.1 165.4 248.0



#69
o-Xylene
Concen: 2.317 ug/l
RT: 10.640 min Scan# 1567
Delta R.T. 0.000 min
Lab File: VX045133.D
Acq: 05 Mar 2025 11:40

Tgt Ion:106 Resp: 3642
Ion Ratio Lower Upper
106 100
91 236.2 109.9 329.6





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 11

Delta R.T. 0.006 min

Lab File: VX045133.D

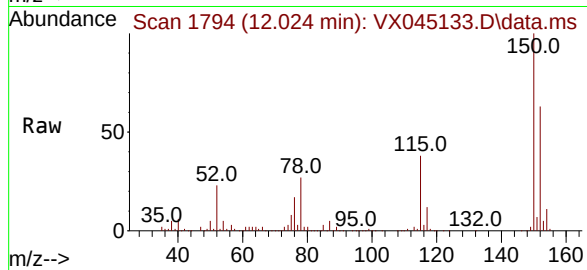
Acq: 05 Mar 2025 11:40

Instrument :

MSVOA_X

ClientSampleId :

P3ME



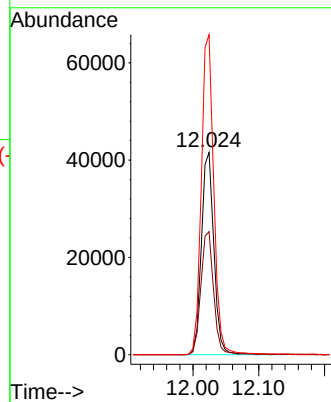
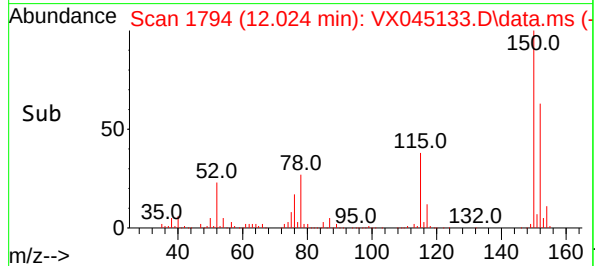
Tgt Ion:152 Resp: 55033

Ion Ratio Lower Upper

152 100

115 62.0 44.2 132.6

150 157.4 0.0 349.0



Report of Analysis

Client:	G Environmental		Date Collected:	02/26/25	
Project:	Fisal		Date Received:	02/26/25	
Client Sample ID:	P4		SDG No.:	Q1448	
Lab Sample ID:	Q1448-05		Matrix:	SOIL	
Analytical Method:	SW8260		% Solid:	88	
Sample Wt/Vol:	6.14	Units: g	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group2	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021370.D	1		02/27/25 19:52	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1.10	U	1.10	4.60	ug/Kg
75-01-4	Vinyl Chloride	0.71	U	0.71	4.60	ug/Kg
74-83-9	Bromomethane	0.95	U	0.95	4.60	ug/Kg
75-00-3	Chloroethane	0.93	U	0.93	4.60	ug/Kg
75-65-0	Tert butyl alcohol	14.4	U	14.4	23.1	ug/Kg
75-35-4	1,1-Dichloroethene	0.72	U	0.72	4.60	ug/Kg
67-64-1	Acetone	5.80	U	5.80	23.1	ug/Kg
75-15-0	Carbon Disulfide	1.20	U	1.20	4.60	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.62	U	0.62	4.60	ug/Kg
75-09-2	Methylene Chloride	3.20	U	3.20	9.30	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.78	U	0.78	4.60	ug/Kg
75-34-3	1,1-Dichloroethane	0.58	U	0.58	4.60	ug/Kg
78-93-3	2-Butanone	5.30	U	5.30	23.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.81	U	0.81	4.60	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.56	U	0.56	4.60	ug/Kg
67-66-3	Chloroform	0.62	U	0.62	4.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.72	U	0.72	4.60	ug/Kg
71-43-2	Benzene	0.67	U	0.67	4.60	ug/Kg
107-06-2	1,2-Dichloroethane	0.56	U	0.56	4.60	ug/Kg
79-01-6	Trichloroethene	0.69	U	0.69	4.60	ug/Kg
78-87-5	1,2-Dichloropropane	0.61	U	0.61	4.60	ug/Kg
75-27-4	Bromodichloromethane	0.52	U	0.52	4.60	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.00	U	4.00	23.1	ug/Kg
108-88-3	Toluene	0.62	U	0.62	4.60	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.56	U	0.56	4.60	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.53	U	0.53	4.60	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.78	U	0.78	4.60	ug/Kg
591-78-6	2-Hexanone	4.40	U	4.40	23.1	ug/Kg
124-48-1	Dibromochloromethane	0.60	U	0.60	4.60	ug/Kg
127-18-4	Tetrachloroethene	0.82	U	0.82	4.60	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P4	SDG No.:	Q1448
Lab Sample ID:	Q1448-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	88
Sample Wt/Vol:	6.14 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021370.D	1		02/27/25 19:52	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.68	U	0.68	4.60	ug/Kg
100-41-4	Ethyl Benzene	0.57	U	0.57	4.60	ug/Kg
179601-23-1	m/p-Xylenes	1.20	U	1.20	9.30	ug/Kg
95-47-6	o-Xylene	0.65	U	0.65	4.60	ug/Kg
100-42-5	Styrene	0.56	U	0.56	4.60	ug/Kg
75-25-2	Bromoform	0.75	U	0.75	4.60	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	1.00	4.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.6		70 (63) - 130 (155)	111%	SPK: 50
1868-53-7	Dibromofluoromethane	52.5		70 (70) - 130 (134)	105%	SPK: 50
2037-26-5	Toluene-d8	46.8		70 (74) - 130 (123)	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.2		70 (38) - 130 (136)	82%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	106000	7.707			
540-36-3	1,4-Difluorobenzene	190000	8.616			
3114-55-4	Chlorobenzene-d5	167000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	65600	13.346			

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\VY022725\
 Data File : VY021370.D
 Acq On : 27 Feb 2025 19:52
 Operator : SY/MD
 Sample : Q1448-05
 Misc : 6.14g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 27 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 P4

Quant Time: Feb 28 00:44:53 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	106086	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	190393	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	166895	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	65580	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	66936	55.620	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	111.240%
35) Dibromofluoromethane	7.634	113	65551	52.515	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	105.040%
50) Toluene-d8	10.109	98	225688	46.784	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	93.560%
62) 4-Bromofluorobenzene	12.408	95	66962	41.245	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	82.500%

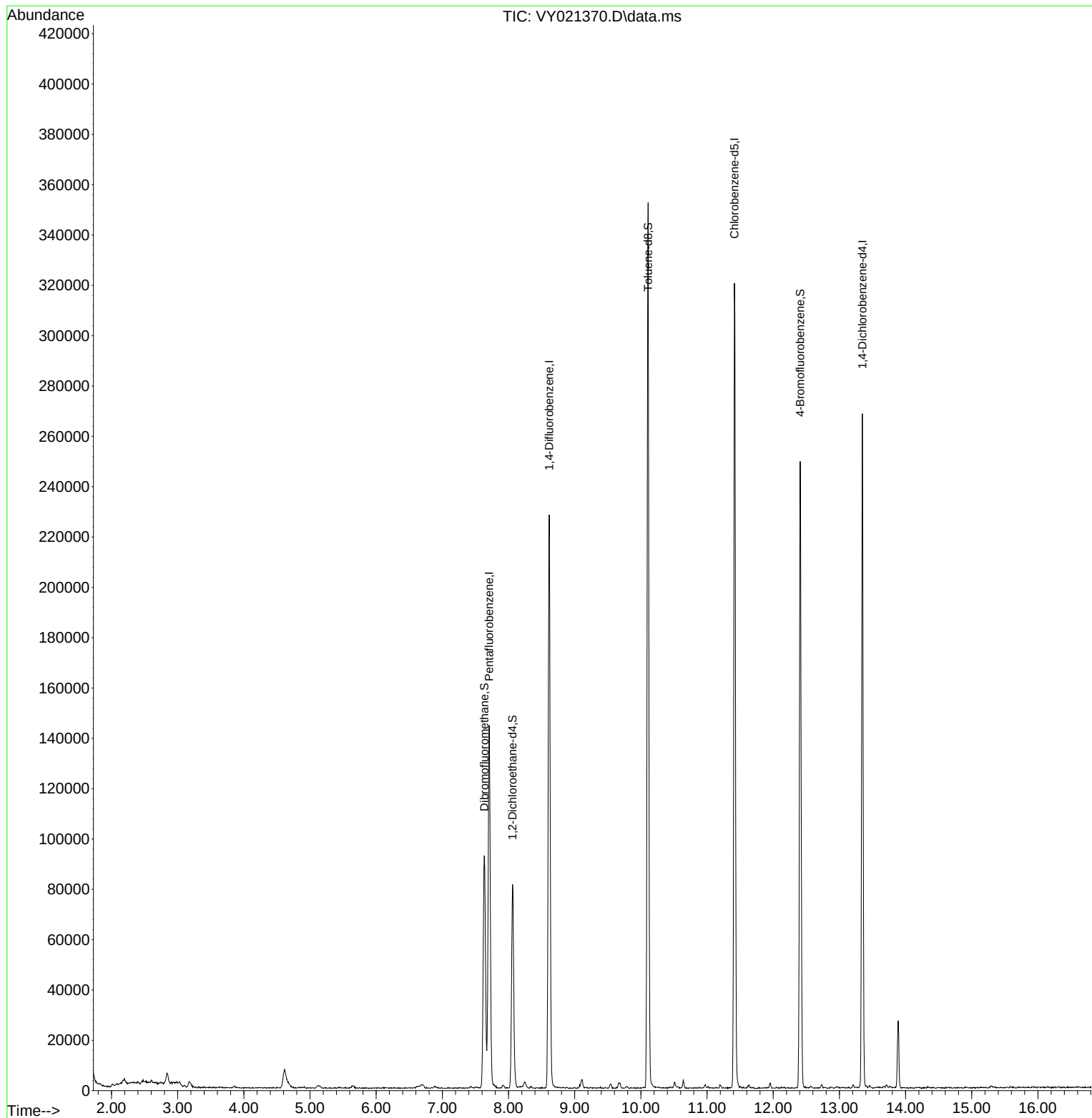
Target Compounds	Qvalue

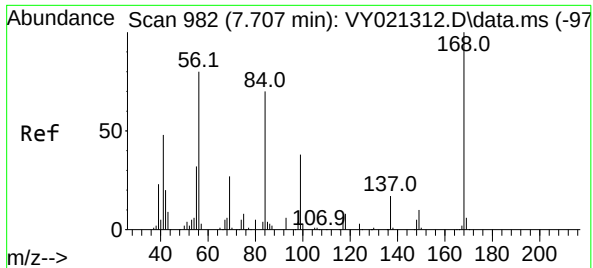
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021370.D
Acq On : 27 Feb 2025 19:52
Operator : SY/MD
Sample : Q1448-05
Misc : 6.14g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 27 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P4

Quant Time: Feb 28 00:44:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

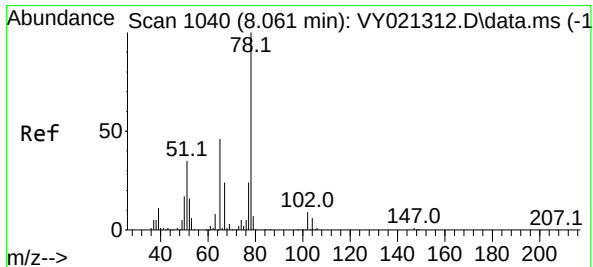
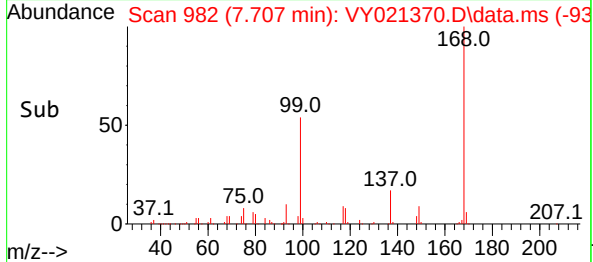
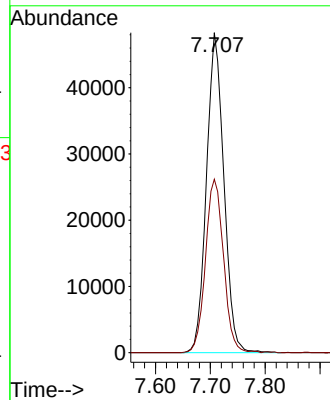
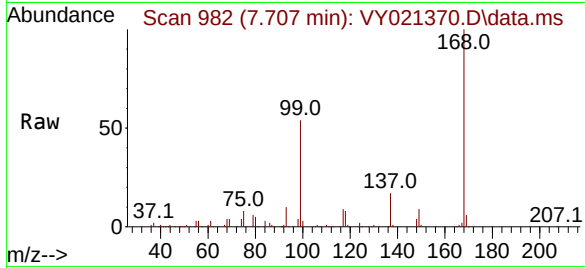




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 982
Delta R.T. 0.000 min
Lab File: VY021370.D
Acq: 27 Feb 2025 19:52

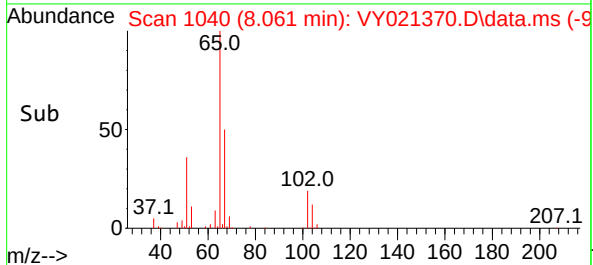
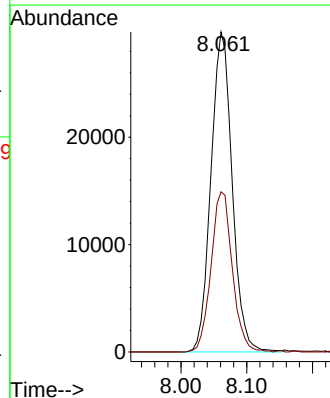
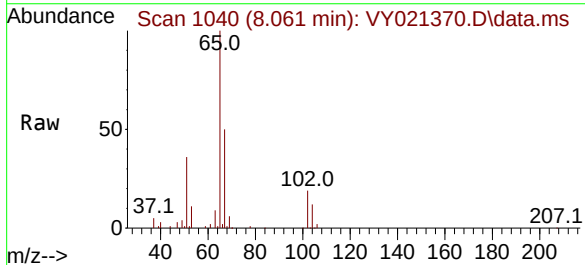
Instrument :
MSVOA_Y
ClientSampleId :
P4

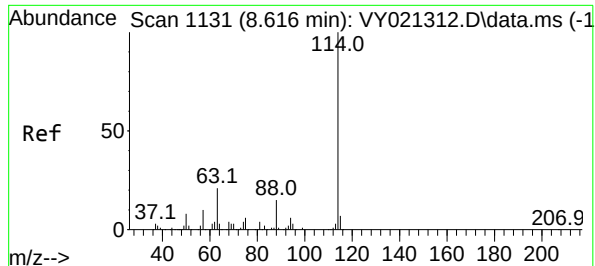
Tgt Ion:168 Resp: 106086
Ion Ratio Lower Upper
168 100
99 54.2 47.1 70.7



#33
1,2-Dichloroethane-d4
Concen: 55.620 ug/l
RT: 8.061 min Scan# 1040
Delta R.T. 0.000 min
Lab File: VY021370.D
Acq: 27 Feb 2025 19:52

Tgt Ion: 65 Resp: 66936
Ion Ratio Lower Upper
65 100
67 50.1 0.0 103.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VY021370.D

Acq: 27 Feb 2025 19:52

Instrument :

MSVOA_Y

ClientSampleId :

P4

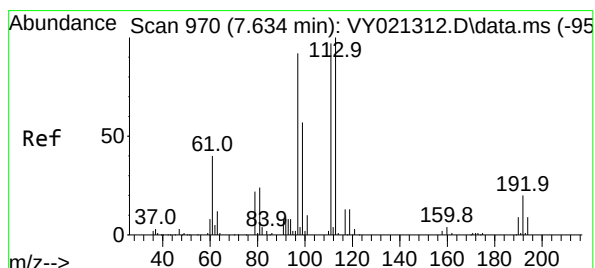
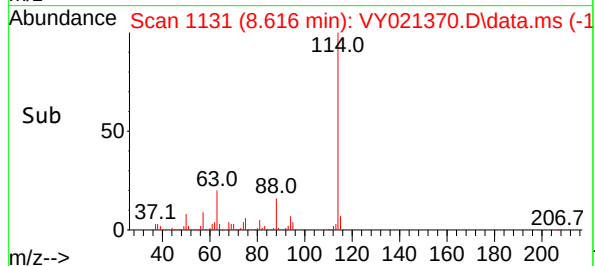
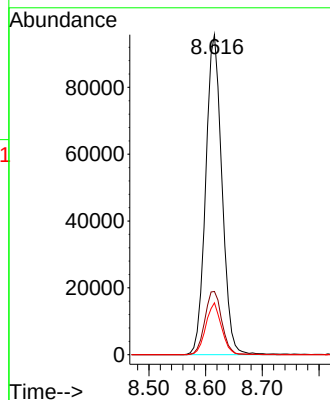
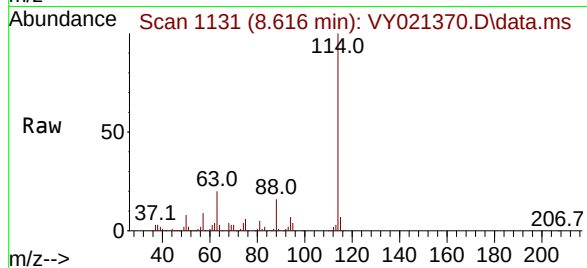
Tgt Ion:114 Resp: 190393

Ion Ratio Lower Upper

114 100

63 19.8 0.0 42.2

88 16.2 0.0 29.8



#35

Dibromofluoromethane

Concen: 52.515 ug/l

RT: 7.634 min Scan# 970

Delta R.T. 0.000 min

Lab File: VY021370.D

Acq: 27 Feb 2025 19:52

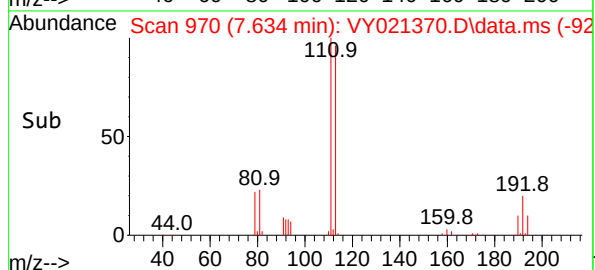
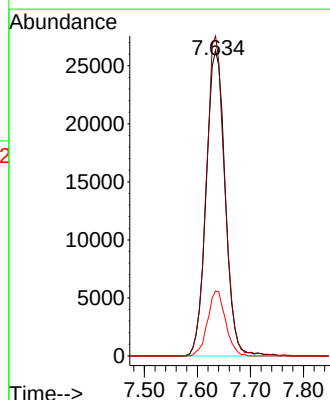
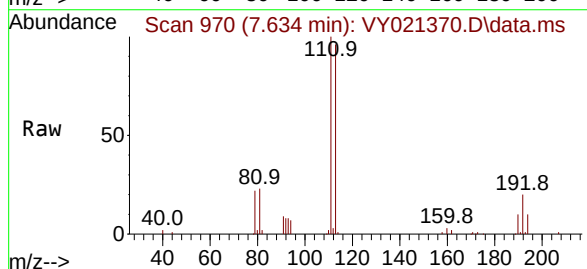
Tgt Ion:113 Resp: 65551

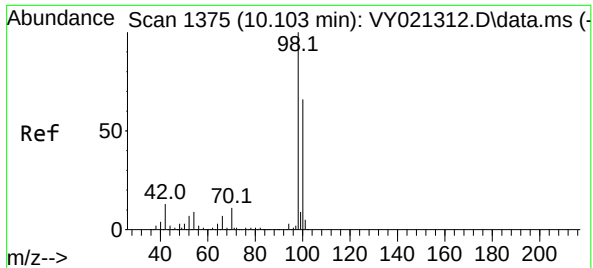
Ion Ratio Lower Upper

113 100

111 101.6 81.0 121.6

192 20.2 15.8 23.8





#50

Toluene-d8

Concen: 46.784 ug/l

RT: 10.109 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY021370.D

Acq: 27 Feb 2025 19:52

Instrument :

MSVOA_Y

ClientSampleId :

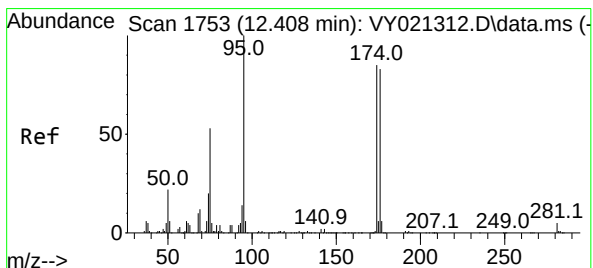
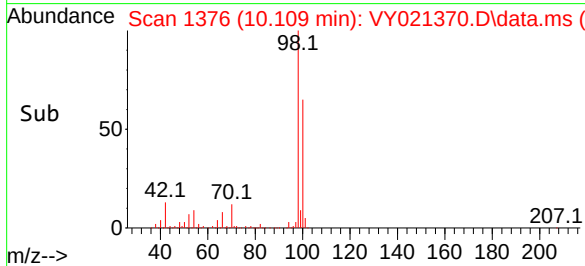
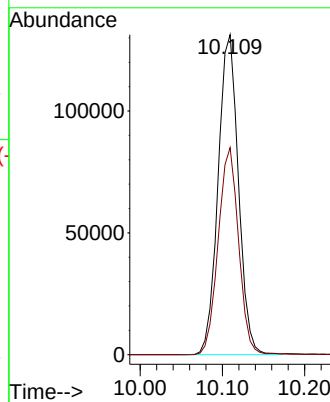
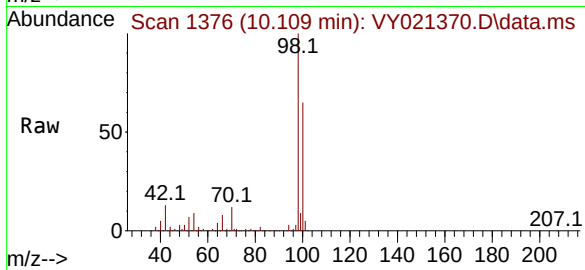
P4

Tgt Ion: 98 Resp: 225688

Ion Ratio Lower Upper

98 100

100 65.0 52.4 78.6



#62

4-Bromofluorobenzene

Concen: 41.245 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. 0.000 min

Lab File: VY021370.D

Acq: 27 Feb 2025 19:52

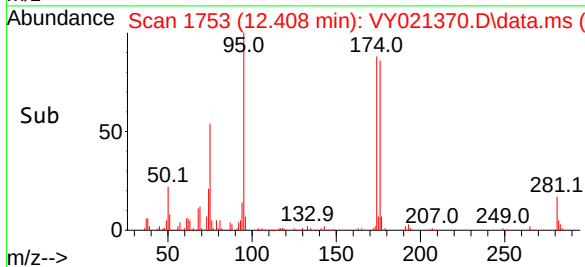
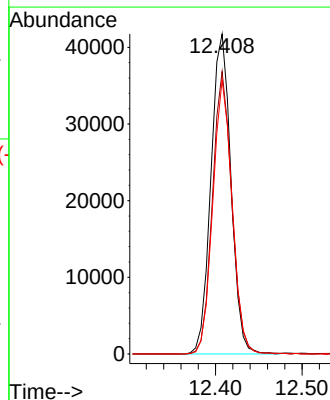
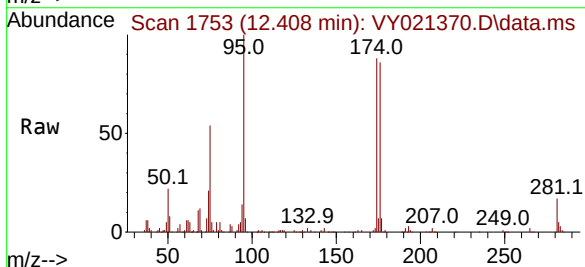
Tgt Ion: 95 Resp: 66962

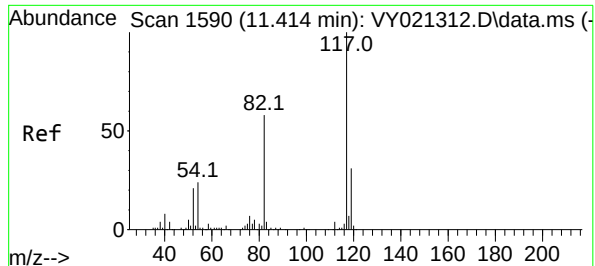
Ion Ratio Lower Upper

95 100

174 85.4 0.0 168.0

176 83.1 0.0 162.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.414 min Scan# 11

Delta R.T. 0.000 min

Lab File: VY021370.D

Acq: 27 Feb 2025 19:52

Instrument :

MSVOA_Y

ClientSampleId :

P4

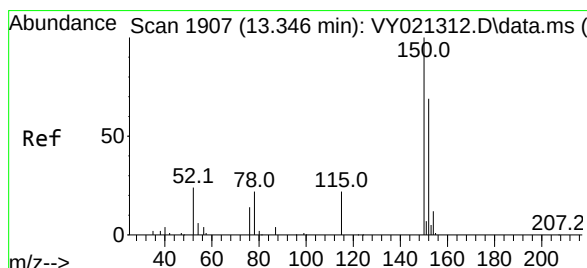
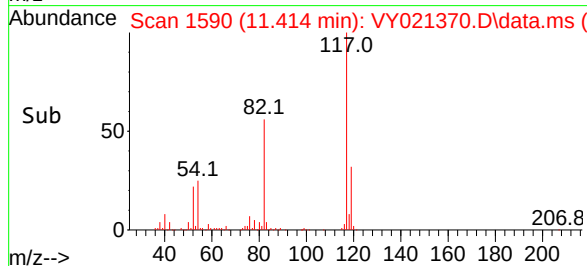
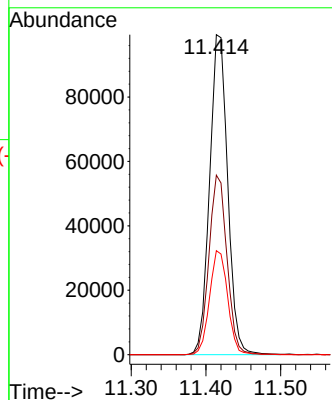
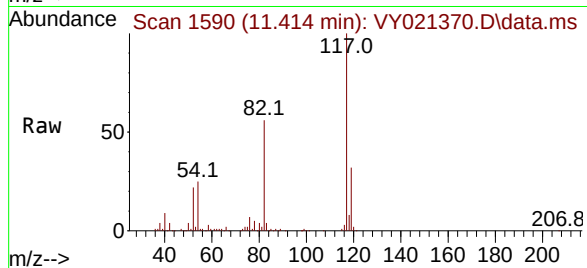
Tgt Ion:117 Resp: 166895

Ion Ratio Lower Upper

117 100

82 56.1 46.2 69.4

119 32.5 24.9 37.3



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.346 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY021370.D

Acq: 27 Feb 2025 19:52

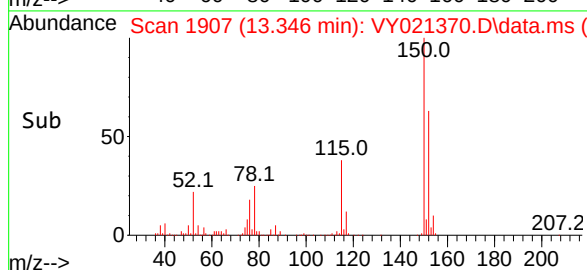
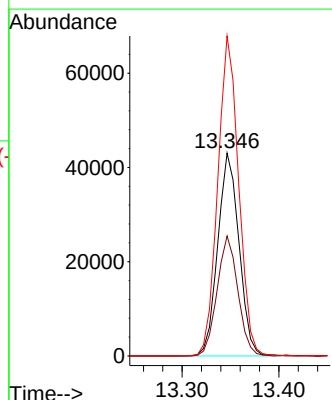
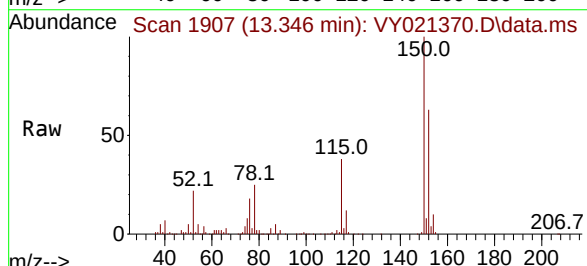
Tgt Ion:152 Resp: 65580

Ion Ratio Lower Upper

152 100

115 57.9 29.3 88.0

150 155.0 0.0 347.4



Report of Analysis

Client:	G Environmental		Date Collected:	02/26/25	
Project:	Fisal		Date Received:	02/26/25	
Client Sample ID:	P4RE		SDG No.:	Q1448	
Lab Sample ID:	Q1448-05RE		Matrix:	SOIL	
Analytical Method:	SW8260		% Solid:	88	
Sample Wt/Vol:	5.55	Units: g	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group2	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021385.D	1		02/28/25 17:05	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1.20	U	1.20	5.10	ug/Kg
75-01-4	Vinyl Chloride	0.79	U	0.79	5.10	ug/Kg
74-83-9	Bromomethane	1.10	U	1.10	5.10	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	5.10	ug/Kg
75-65-0	Tert butyl alcohol	220		16.0	25.6	ug/Kg
75-35-4	1,1-Dichloroethene	0.80	U	0.80	5.10	ug/Kg
67-64-1	Acetone	82.2		6.40	25.6	ug/Kg
75-15-0	Carbon Disulfide	1.30	U	1.30	5.10	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.69	U	0.69	5.10	ug/Kg
75-09-2	Methylene Chloride	7.00	J	3.50	10.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.86	U	0.86	5.10	ug/Kg
75-34-3	1,1-Dichloroethane	0.64	U	0.64	5.10	ug/Kg
78-93-3	2-Butanone	5.80	U	5.80	25.6	ug/Kg
56-23-5	Carbon Tetrachloride	0.89	U	0.89	5.10	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.62	U	0.62	5.10	ug/Kg
67-66-3	Chloroform	0.69	U	0.69	5.10	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.80	U	0.80	5.10	ug/Kg
71-43-2	Benzene	0.74	U	0.74	5.10	ug/Kg
107-06-2	1,2-Dichloroethane	0.62	U	0.62	5.10	ug/Kg
79-01-6	Trichloroethene	0.77	U	0.77	5.10	ug/Kg
78-87-5	1,2-Dichloropropane	0.68	U	0.68	5.10	ug/Kg
75-27-4	Bromodichloromethane	0.57	U	0.57	5.10	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.50	U	4.50	25.6	ug/Kg
108-88-3	Toluene	0.69	U	0.69	5.10	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.61	U	0.61	5.10	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.58	U	0.58	5.10	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.86	U	0.86	5.10	ug/Kg
591-78-6	2-Hexanone	4.90	U	4.90	25.6	ug/Kg
124-48-1	Dibromochloromethane	0.67	U	0.67	5.10	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	0.91	5.10	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	02/26/25
Project:	Fisal	Date Received:	02/26/25
Client Sample ID:	P4RE	SDG No.:	Q1448
Lab Sample ID:	Q1448-05RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	88
Sample Wt/Vol:	5.55 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021385.D	1		02/28/25 17:05	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.76	U	0.76	5.10	ug/Kg
100-41-4	Ethyl Benzene	0.63	U	0.63	5.10	ug/Kg
179601-23-1	m/p-Xylenes	1.40	U	1.40	10.2	ug/Kg
95-47-6	o-Xylene	0.72	U	0.72	5.10	ug/Kg
100-42-5	Styrene	0.61	U	0.61	5.10	ug/Kg
75-25-2	Bromoform	0.83	U	0.83	5.10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.10	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.4		70 (63) - 130 (155)	117%	SPK: 50
1868-53-7	Dibromofluoromethane	54.9		70 (70) - 130 (134)	110%	SPK: 50
2037-26-5	Toluene-d8	47.9		70 (74) - 130 (123)	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.6		70 (38) - 130 (136)	77%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	127000	7.707			
540-36-3	1,4-Difluorobenzene	228000	8.615			
3114-55-4	Chlorobenzene-d5	196000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	63400	13.346			

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\VY022825\
 Data File : VY021385.D
 Acq On : 28 Feb 2025 17:05
 Operator : SY/MD
 Sample : Q1448-05RE
 Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/B
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 P4RE

Quant Time: Feb 28 22:22:21 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

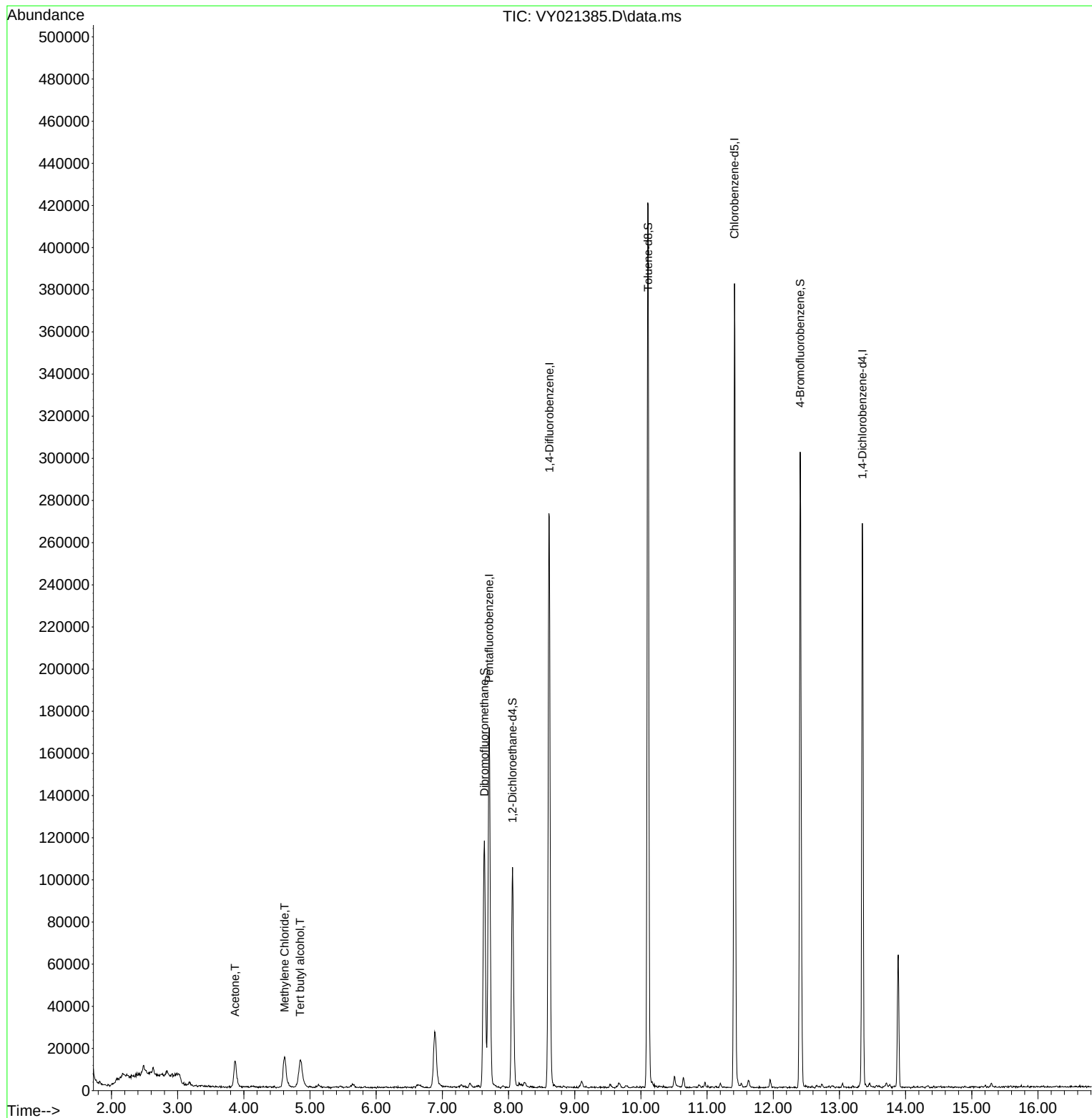
Internal Standards						
1) Pentafluorobenzene	7.707	168	127050	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.615	114	227538	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	195919	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	63405	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	84138	58.378	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 116.760%			
35) Dibromofluoromethane	7.634	113	81861	54.876	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 109.760%			
50) Toluene-d8	10.109	98	276052	47.882	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 95.760%			
62) 4-Bromofluorobenzene	12.407	95	74956	38.632	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 77.260%			
Target Compounds						Qvalue
11) Tert butyl alcohol	4.848	59	23386	210.951	ug/l	99
16) Acetone	3.866	43	22189	80.258	ug/l	98
20) Methylene Chloride	4.616	84	10242	6.851	ug/l	90

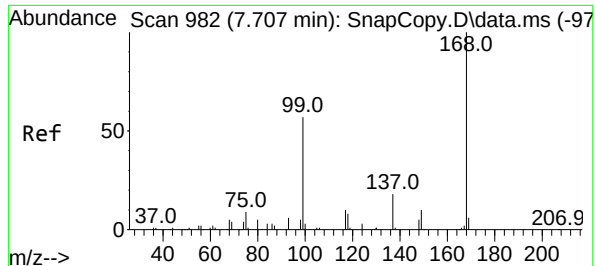
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021385.D
Acq On : 28 Feb 2025 17:05
Operator : SY/MD
Sample : Q1448-05RE
Misc : 5.55g/5.0mL/MSVOA_Y/SOIL/B
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
P4RE

Quant Time: Feb 28 22:22:21 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

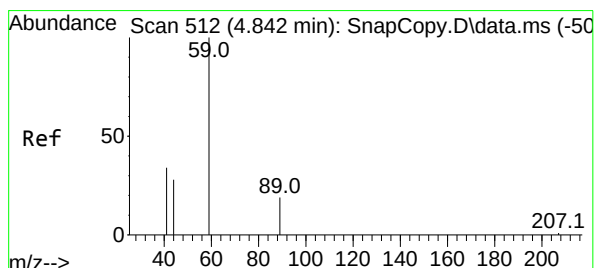
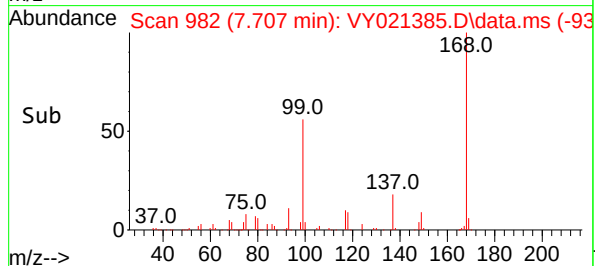
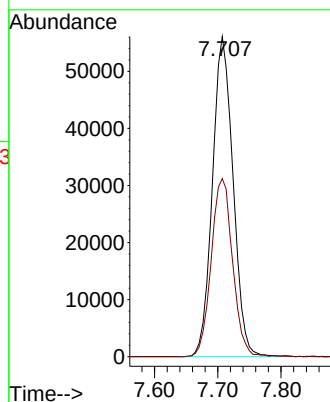
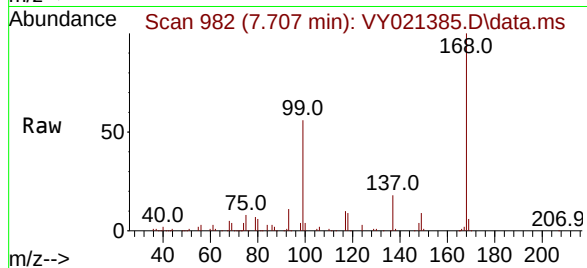




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 91
Delta R.T. 0.000 min
Lab File: VY021385.D
Acq: 28 Feb 2025 17:05

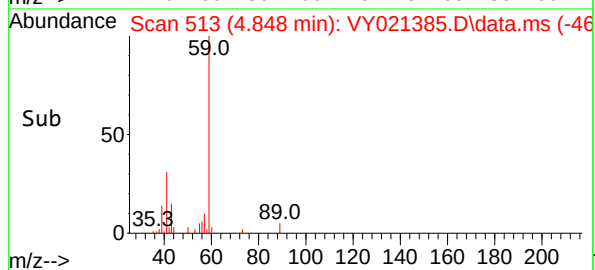
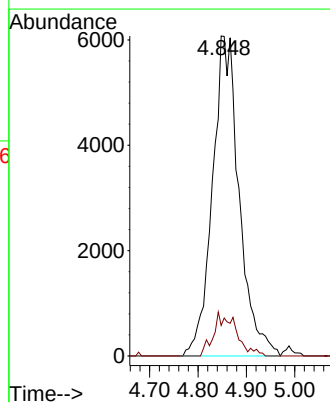
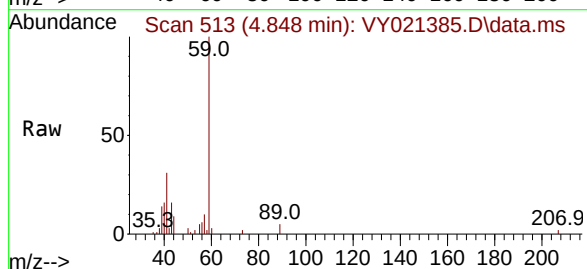
Instrument :
MSVOA_Y
ClientSampleId :
P4RE

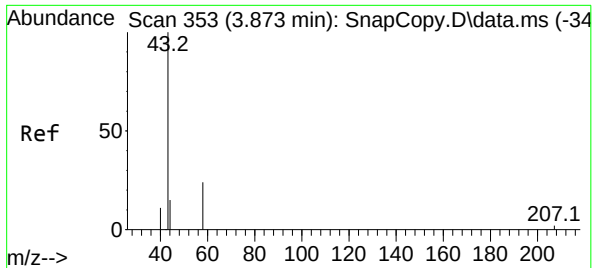
Tgt Ion:168 Resp: 127050
Ion Ratio Lower Upper
168 100
99 55.7 47.1 70.7



#11
Tert butyl alcohol
Concen: 210.951 ug/l
RT: 4.848 min Scan# 513
Delta R.T. -0.006 min
Lab File: VY021385.D
Acq: 28 Feb 2025 17:05

Tgt Ion: 59 Resp: 23386
Ion Ratio Lower Upper
59 100
57 10.8 8.3 12.5

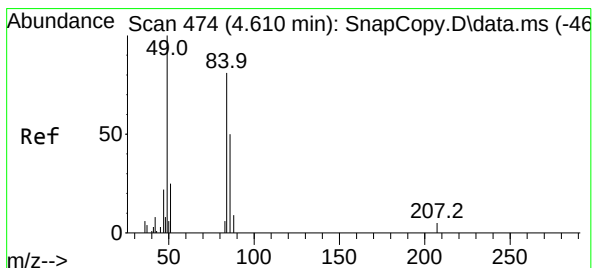
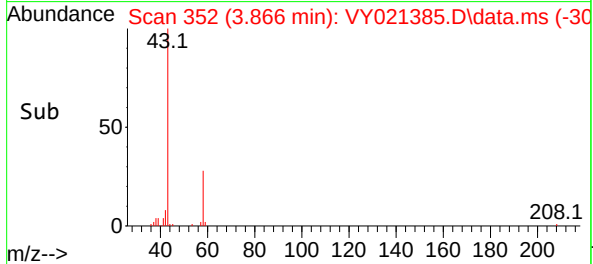
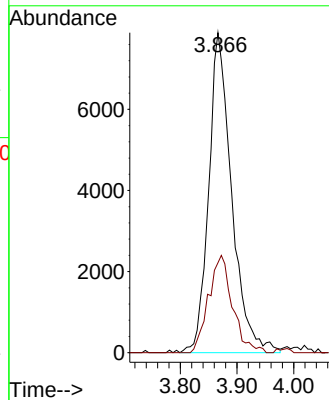
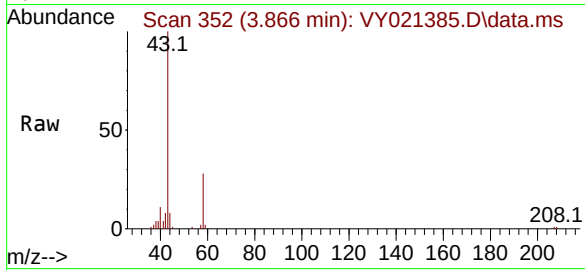




#16
Acetone
Concen: 80.258 ug/l
RT: 3.866 min Scan# 31
Delta R.T. -0.000 min
Lab File: VY021385.D
Acq: 28 Feb 2025 17:05

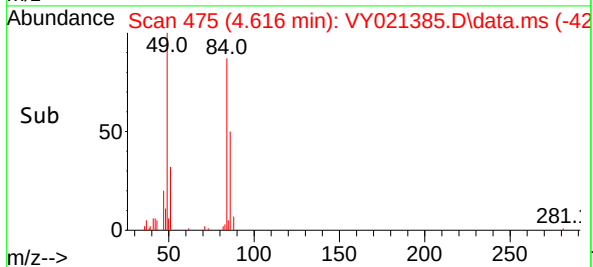
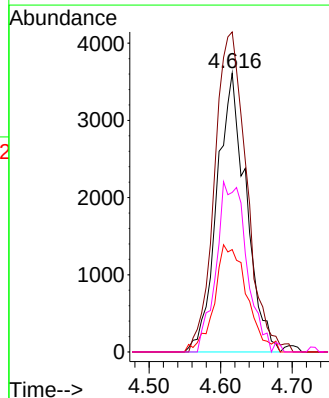
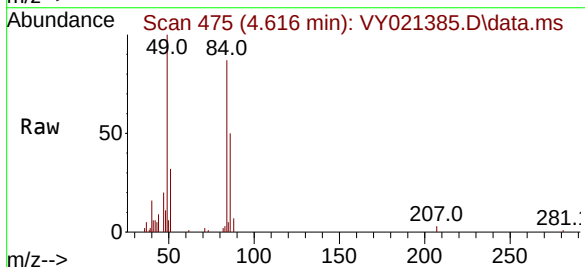
Instrument :
MSVOA_Y
ClientSampleId :
P4RE

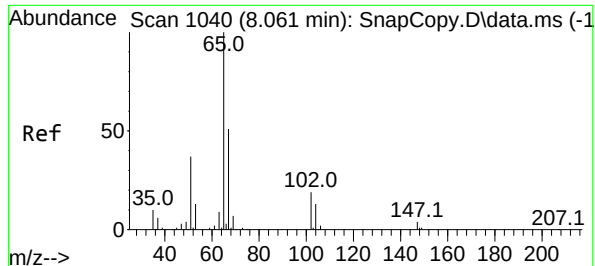
Tgt Ion: 43 Resp: 22189
Ion Ratio Lower Upper
43 100
58 28.1 23.5 35.3



#20
Methylene Chloride
Concen: 6.851 ug/l
RT: 4.616 min Scan# 475
Delta R.T. 0.006 min
Lab File: VY021385.D
Acq: 28 Feb 2025 17:05

Tgt Ion: 84 Resp: 10242
Ion Ratio Lower Upper
84 100
49 114.8 105.1 157.7
51 36.7 31.0 46.4
86 57.3 48.2 72.4





#33

1,2-Dichloroethane-d4

Concen: 58.378 ug/l

RT: 8.061 min Scan# 110

Delta R.T. 0.000 min

Lab File: VY021385.D

Acq: 28 Feb 2025 17:05

Instrument :

MSVOA_Y

ClientSampleId :

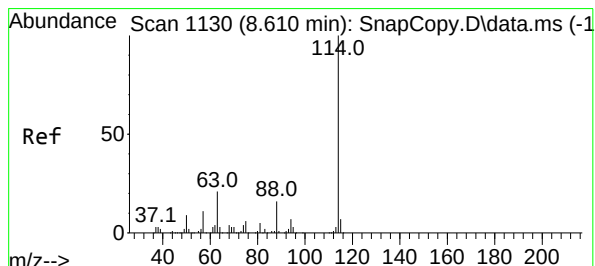
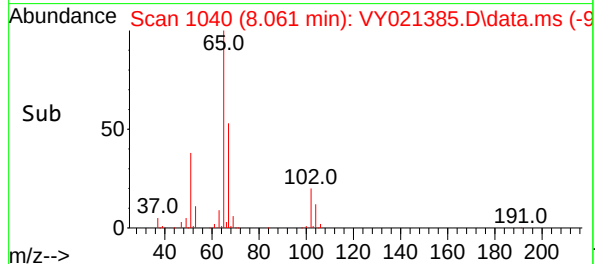
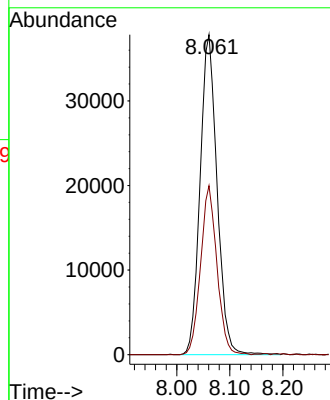
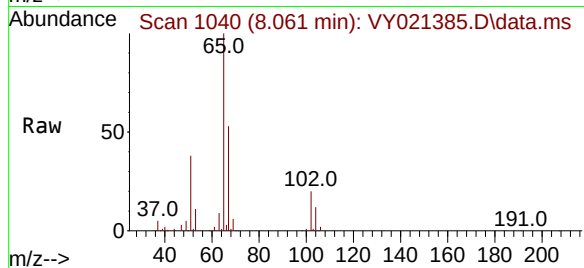
P4RE

Tgt Ion: 65 Resp: 84138

Ion Ratio Lower Upper

65 100

67 50.8 0.0 103.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.615 min Scan# 1131

Delta R.T. -0.000 min

Lab File: VY021385.D

Acq: 28 Feb 2025 17:05

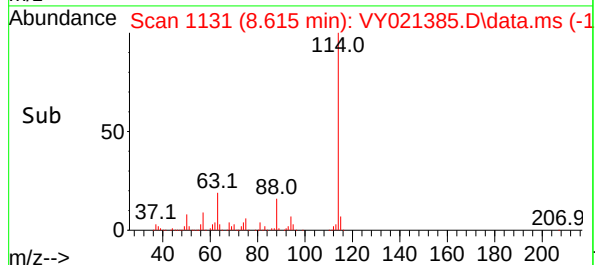
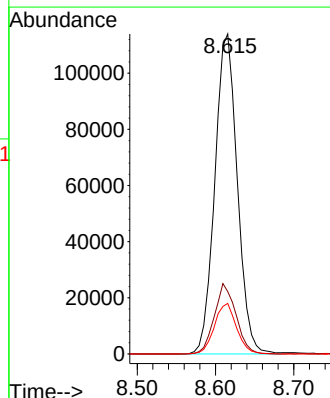
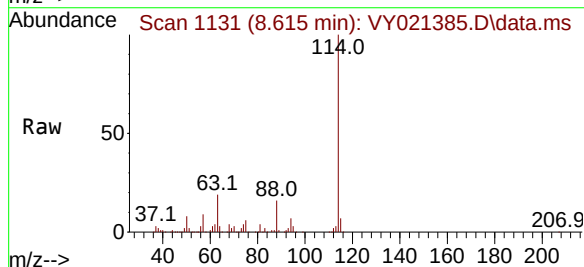
Tgt Ion: 114 Resp: 227538

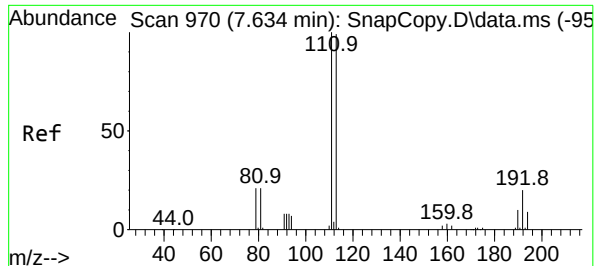
Ion Ratio Lower Upper

114 100

63 19.5 0.0 42.2

88 15.8 0.0 29.8





#35

Dibromofluoromethane

Concen: 54.876 ug/l

RT: 7.634 min Scan# 91

Delta R.T. -0.000 min

Lab File: VY021385.D

Acq: 28 Feb 2025 17:05

Instrument :

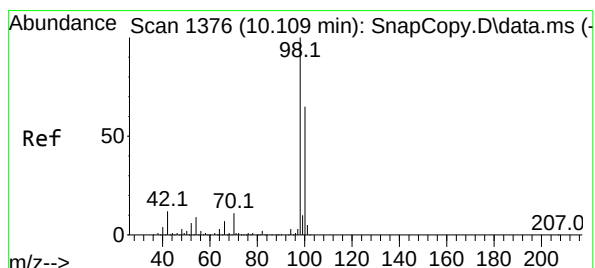
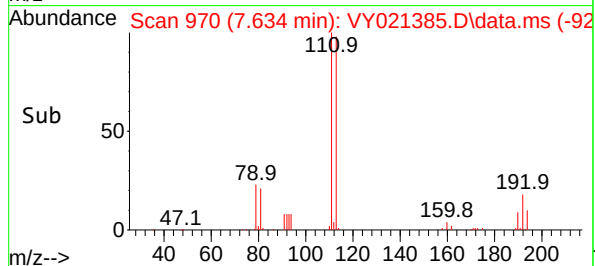
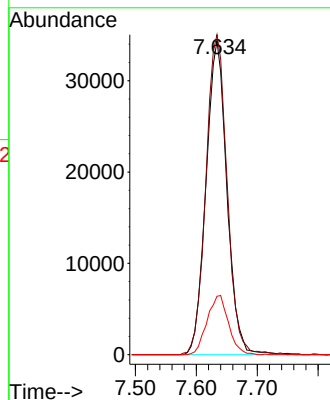
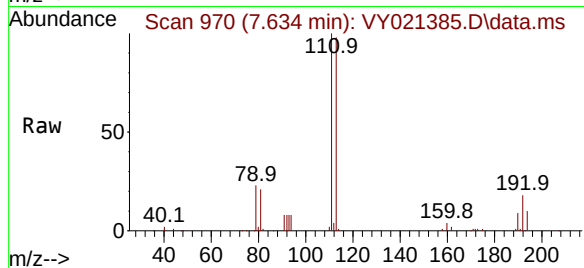
MSVOA_Y

ClientSampleId :

P4RE

Tgt Ion:113 Resp: 81861

Ion	Ratio	Lower	Upper
113	100		
111	103.3	81.0	121.6
192	19.3	15.8	23.8



#50

Toluene-d8

Concen: 47.882 ug/l

RT: 10.109 min Scan# 1376

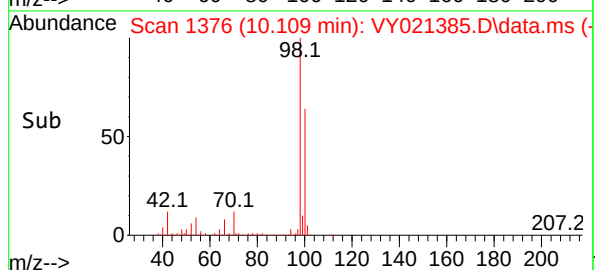
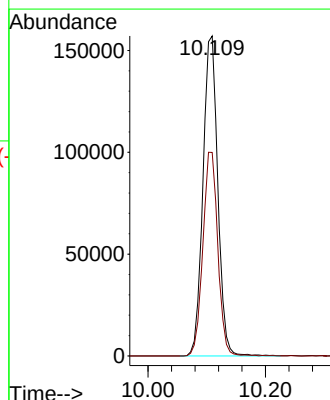
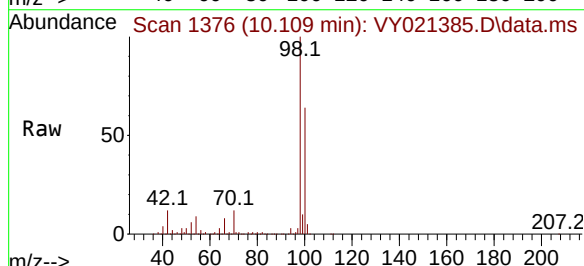
Delta R.T. 0.006 min

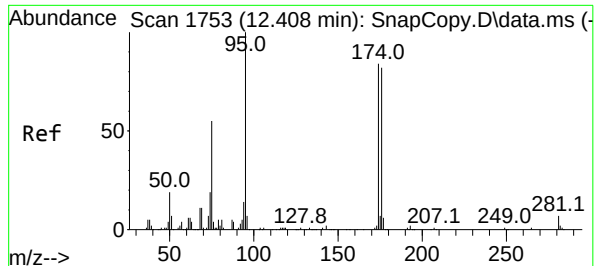
Lab File: VY021385.D

Acq: 28 Feb 2025 17:05

Tgt Ion: 98 Resp: 276052

Ion	Ratio	Lower	Upper
98	100		
100	64.1	52.4	78.6





#62

4-Bromofluorobenzene

Concen: 38.632 ug/l

RT: 12.407 min Scan# 11

Delta R.T. -0.000 min

Lab File: VY021385.D

Acq: 28 Feb 2025 17:05

Instrument :

MSVOA_Y

ClientSampleId :

P4RE

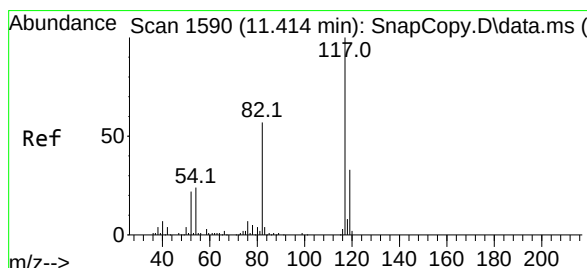
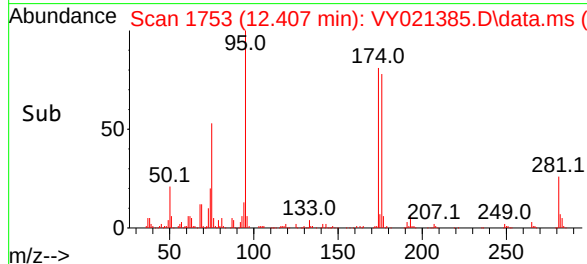
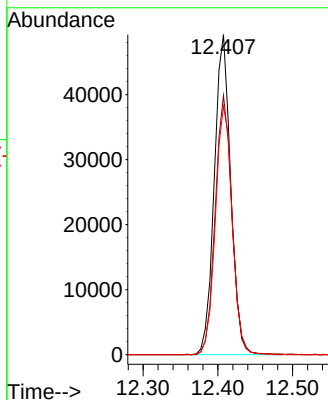
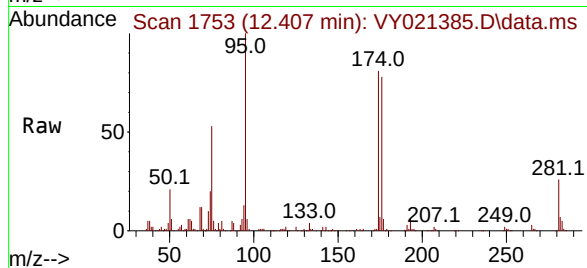
Tgt Ion: 95 Resp: 74956

Ion Ratio Lower Upper

95 100

174 82.7 0.0 168.0

176 80.3 0.0 162.6



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.414 min Scan# 1590

Delta R.T. -0.000 min

Lab File: VY021385.D

Acq: 28 Feb 2025 17:05

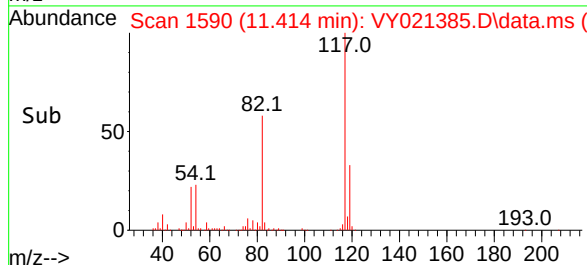
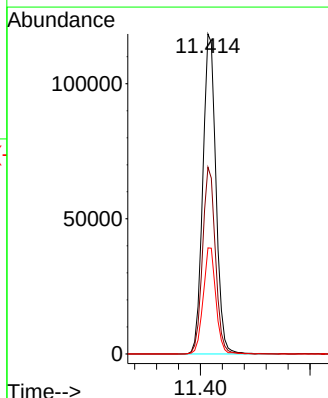
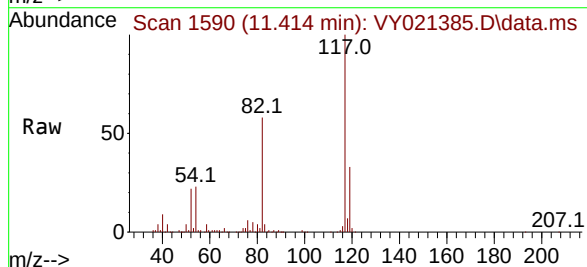
Tgt Ion: 117 Resp: 195919

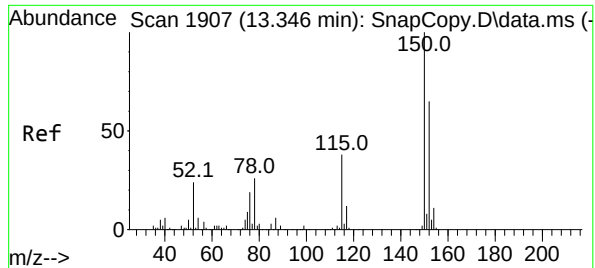
Ion Ratio Lower Upper

117 100

82 58.3 46.2 69.4

119 33.1 24.9 37.3





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.346 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY021385.D

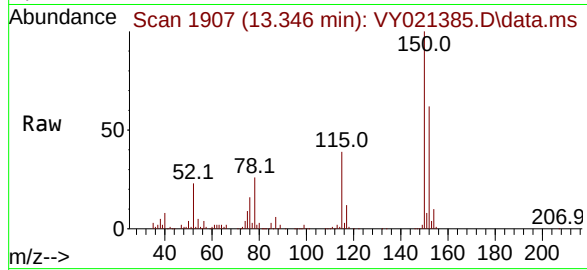
Acq: 28 Feb 2025 17:05

Instrument :

MSVOA_Y

ClientSampleId :

P4RE



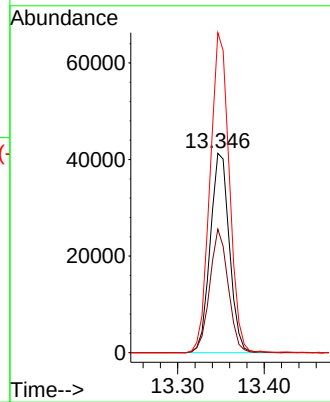
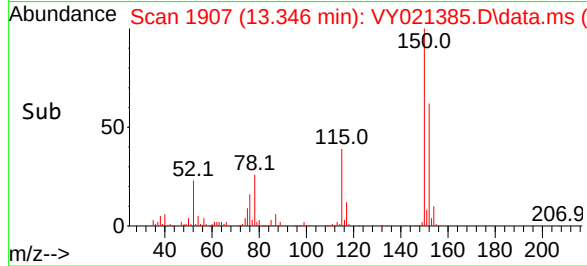
Tgt Ion:152 Resp: 63405

Ion Ratio Lower Upper

152 100

115 59.7 29.3 88.0

150 161.3 0.0 347.4





CALIBRATION SUMMARY



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: GENV01
 Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448
 Instrument ID: MSVOA_X Calibration Date(s): 02/28/2025 02/28/2025
 Heated Purge: (Y/N) N Calibration Time(s): 01:27 03:47
 GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:		RRF001 = VX045068.D		RRF005 = VX045069.D		RRF020 = VX045070.D			
		RRF050 = VX045071.D		RRF100 = VX045072.D		RRF150 = VX045073.D			
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD	
Chloromethane	0.755	0.821	0.828	0.753	0.721	0.744	0.770	5.7	
Vinyl Chloride	0.773	0.755	0.774	0.761	0.765	0.758	0.764	1	
Bromomethane		0.337	0.298	0.292	0.284	0.291	0.300	7	
Chloroethane	0.373	0.421	0.366	0.373	0.297	0.286	0.352	14.5	
Tert butyl alcohol		0.189	0.161	0.134	0.133	0.136	0.151	16.2	
1,1-Dichloroethene	0.609	0.620	0.612	0.623	0.620	0.603	0.614	1.3	
Acetone	0.414	0.363	0.384	0.351	0.345	0.356	0.369	7	
Carbon Disulfide	1.584	1.582	1.587	1.660	1.708	1.698	1.636	3.6	
Methyl tert-butyl Ether	1.955	1.913	2.127	2.083	2.132	2.158	2.061	5	
Methylene Chloride	0.806	0.730	0.752	0.698	0.694	0.706	0.731	5.8	
trans-1,2-Dichloroethene	0.540	0.619	0.603	0.631	0.634	0.616	0.607	5.7	
1,1-Dichloroethane	1.200	1.223	1.280	1.242	1.270	1.264	1.247	2.5	
2-Butanone	0.476	0.545	0.610	0.579	0.553	0.570	0.555	8.1	
Carbon Tetrachloride	0.463	0.463	0.447	0.468	0.489	0.463	0.465	3	
cis-1,2-Dichloroethene	0.687	0.746	0.765	0.762	0.767	0.769	0.749	4.2	
Chloroform	1.206	1.247	1.278	1.246	1.230	1.225	1.239	2	
1,1,1-Trichloroethane	0.908	0.992	1.009	1.024	1.044	1.025	1.000	4.8	
Benzene	1.321	1.459	1.491	1.496	1.497	1.424	1.448	4.7	
1,2-Dichloroethane	0.487	0.525	0.545	0.528	0.524	0.520	0.521	3.6	
Trichloroethene	0.319	0.351	0.339	0.341	0.354	0.336	0.340	3.7	
1,2-Dichloropropane	0.354	0.378	0.382	0.371	0.376	0.373	0.372	2.7	
Bromodichloromethane	0.478	0.503	0.536	0.524	0.528	0.528	0.516	4.2	
4-Methyl-2-Pentanone	0.535	0.570	0.647	0.610	0.579	0.579	0.587	6.5	
Toluene	0.716	0.872	0.892	0.898	0.874	0.845	0.849	8	
t-1,3-Dichloropropene	0.304	0.389	0.436	0.469	0.490	0.502	0.431	17.3	
cis-1,3-Dichloropropene	0.404	0.463	0.509	0.535	0.555	0.553	0.503	11.8	
1,1,2-Trichloroethane	0.346	0.348	0.371	0.356	0.341	0.336	0.350	3.6	
2-Hexanone	0.349	0.412	0.476	0.448	0.431	0.436	0.425	10.1	
Dibromochloromethane	0.305	0.349	0.390	0.384	0.385	0.380	0.366	9	
Tetrachloroethene	0.315	0.326	0.319	0.324	0.329	0.309	0.320	2.3	

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



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: GENV01
 Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448
 Instrument ID: MSVOA_X Calibration Date(s): 02/28/2025 02/28/2025
 Heated Purge: (Y/N) N Calibration Time(s): 01:27 03:47
 GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:		RRF001 = VX045068.D		RRF005 = VX045069.D		RRF020 = VX045070.D			
		RRF050 = VX045071.D		RRF100 = VX045072.D		RRF150 = VX045073.D			
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD	
Chlorobenzene	0.968	1.054	1.090	1.092	1.100	1.045	1.058	4.7	
Ethyl Benzene	1.566	1.794	1.889	1.952	1.972	1.888	1.843	8.1	
m/p-Xylenes	0.555	0.672	0.711	0.724	0.715	0.673	0.675	9.3	
o-Xylene	0.609	0.689	0.702	0.706	0.707	0.670	0.681	5.5	
Styrene	0.879	1.060	1.170	1.181	1.183	1.134	1.101	10.7	
Bromoform	0.209	0.234	0.276	0.276	0.300	0.300	0.266	13.9	
1,1,2,2-Tetrachloroethane	1.395	1.479	1.513	1.419	1.391	1.396	1.432	3.6	
1,2-Dichloroethane-d4		0.836	0.784	0.757	0.783	0.817	0.795	3.9	
Dibromofluoromethane		0.329	0.335	0.329	0.340	0.338	0.334	1.5	
Toluene-d8		1.237	1.191	1.210	1.219	1.203	1.212	1.4	
4-Bromofluorobenzene		0.383	0.393	0.402	0.410	0.421	0.402	3.7	

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

Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
 Method File : 82X022825W.M
 Title : SW846 8260
 Last Update : Fri Feb 28 06:45:16 2025
 Response Via : Initial Calibration

Calibration Files

1 =VX045068.D 5 =VX045069.D 20 =VX045070.D 50 =VX045071.D 100 =VX045072.D 150 =VX045073.D

	Compound	1	5	20	50	100	150	Avg	%RSD
1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.624	0.646	0.646	0.627	0.626	0.607	0.629	2.38
3) P	Chloromethane	0.755	0.821	0.828	0.753	0.721	0.744	0.770	5.68
4) C	Vinyl Chloride	0.773	0.755	0.774	0.761	0.765	0.758	0.764	1.03#
5) T	Bromomethane		0.337	0.298	0.292	0.284	0.291	0.300	7.01
6) T	Chloroethane	0.373	0.421	0.366	0.373	0.297	0.286	0.352	14.54
7) T	Trichlorofluor...	0.978	1.061	1.050	1.050	0.982	0.948	1.011	4.73
8) T	Diethyl Ether	0.406	0.402	0.409	0.387	0.387	0.383	0.396	2.83
9) T	1,1,2-Trichlor...	0.526	0.613	0.595	0.594	0.596	0.563	0.581	5.41
10) T	Methyl Iodide		0.607	0.758	0.769	0.758	0.739	0.726	9.28
11) T	Tert butyl alc...		0.189	0.161	0.134	0.133	0.136	0.151	16.19
12) CM	1,1-Dichloroet...	0.609	0.620	0.612	0.623	0.620	0.603	0.614	1.27#
13) T	Acrolein		0.162	0.173	0.174	0.178	0.184	0.174	4.53
14) T	Allyl chloride	1.140	1.047	1.104	1.107	1.091	1.072	1.094	2.92
15) T	Acrylonitrile	0.396	0.398	0.432	0.410	0.387	0.399	0.404	3.90
16) T	Acetone	0.414	0.363	0.384	0.351	0.345	0.356	0.369	7.04
17) T	Carbon Disulfide	1.584	1.582	1.587	1.660	1.708	1.698	1.636	3.62
18) T	Methyl Acetate	0.954	0.835	0.903	0.867	0.869	0.899	0.888	4.59
19) T	Methyl tert-bu...	1.955	1.913	2.127	2.083	2.132	2.158	2.061	4.97
20) T	Methylene Chlo...	0.806	0.730	0.752	0.698	0.694	0.706	0.731	5.84
21) T	trans-1,2-Dich...	0.540	0.619	0.603	0.631	0.634	0.616	0.607	5.73
22) T	Diisopropyl ether	1.959	2.156	2.321	2.291	2.310	2.307	2.224	6.46
23) T	Vinyl Acetate	1.486	1.655	1.961	1.973	2.012	2.049	1.856	12.38
24) P	1,1-Dichloroet...	1.200	1.223	1.280	1.242	1.270	1.264	1.247	2.45
25) T	2-Butanone	0.476	0.545	0.610	0.579	0.553	0.570	0.555	8.09
26) T	2,2-Dichloropr...	0.519	0.562	0.588	0.597	0.617	0.626	0.585	6.74
27) T	cis-1,2-Dichlo...	0.687	0.746	0.765	0.762	0.767	0.769	0.749	4.21
28) T	Bromochloromet...	0.557	0.633	0.613	0.603	0.563	0.596	0.594	4.97
29) T	Tetrahydrofuran	0.362	0.376	0.398	0.373	0.361	0.368	0.373	3.61
30) C	Chloroform	1.206	1.247	1.278	1.246	1.230	1.225	1.239	1.97#
31) T	Cyclohexane		1.021	1.087	1.108	1.142	1.052	1.082	4.35
32) T	1,1,1-Trichlor...	0.908	0.992	1.009	1.024	1.044	1.025	1.000	4.83
33) S	1,2-Dichloroet...		0.836	0.784	0.757	0.783	0.817	0.795	3.91
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...		0.329	0.335	0.329	0.340	0.338	0.334	1.53
36) T	1,1-Dichloropr...	0.446	0.462	0.444	0.469	0.476	0.455	0.459	2.77
37) T	Ethyl Acetate	0.589	0.538	0.607	0.606	0.609	0.596	0.591	4.53
38) T	Carbon Tetrach...	0.463	0.463	0.447	0.468	0.489	0.463	0.465	2.96
39) T	Methylcyclohexane	0.464	0.530	0.560	0.585	0.607	0.550	0.549	9.07
40) TM	Benzene	1.321	1.459	1.491	1.496	1.497	1.424	1.448	4.72
41) T	Methacrylonitrile	0.284	0.293	0.337	0.340	0.332	0.330	0.319	7.59
42) TM	1,2-Dichloroet...	0.487	0.525	0.545	0.528	0.524	0.520	0.521	3.63
43) T	Isopropyl Acetate	0.675	0.800	0.940	0.929	0.935	0.964	0.874	12.98
44) TM	Trichloroethene	0.319	0.351	0.339	0.341	0.354	0.336	0.340	3.72
45) C	1,2-Dichloropr...	0.354	0.378	0.382	0.371	0.376	0.373	0.372	2.68#
46) T	Dibromomethane	0.236	0.265	0.272	0.269	0.269	0.268	0.263	5.10
47) T	Bromodichlorom...	0.478	0.503	0.536	0.524	0.528	0.528	0.516	4.23
48) T	Methyl methacr...	0.352	0.422	0.460	0.463	0.458	0.475	0.438	10.46
49) T	1,4-Dioxane	0.008	0.009	0.010	0.009	0.009	0.009	0.009	6.46
50) S	Toluene-d8		1.237	1.191	1.210	1.219	1.203	1.212	1.43
51) T	4-Methyl-2-Pen...	0.535	0.570	0.647	0.610	0.579	0.579	0.587	6.52
52) CM	Toluene	0.716	0.872	0.892	0.898	0.874	0.845	0.849	8.03#
53) T	t-1,3-Dichloro...	0.304	0.389	0.436	0.469	0.490	0.502	0.431	17.30
54) T	cis-1,3-Dichlo...	0.404	0.463	0.509	0.535	0.555	0.553	0.503	11.80
55) T	1,1,2-Trichlor...	0.346	0.348	0.371	0.356	0.341	0.336	0.350	3.63
56) T	Ethyl methacry...	0.396	0.500	0.562	0.570	0.577	0.586	0.532	13.74

Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
 Method File : 82X022825W.M

57)	T	1,3-Dichloropr...	0.560	0.623	0.643	0.620	0.597	0.588	0.605	4.90
58)	T	2-Chloroethyl ...	0.218	0.239	0.271	0.284	0.273	0.270	0.259	9.71
59)	T	2-Hexanone	0.349	0.412	0.476	0.448	0.431	0.436	0.425	10.08
60)	T	Dibromochlorom...	0.305	0.349	0.390	0.384	0.385	0.380	0.366	9.01
61)	T	1,2-Dibromoethane	0.311	0.352	0.371	0.356	0.355	0.350	0.349	5.73
62)	S	4-Bromofluorob...	0.383	0.393	0.402	0.410	0.421	0.402		3.67
63)	I	Chlorobenzene-d5	-----ISTD-----							
64)	T	Tetrachloroethene	0.315	0.326	0.319	0.324	0.329	0.309	0.320	2.33
65)	PM	Chlorobenzene	0.968	1.054	1.090	1.092	1.100	1.045	1.058	4.68
66)	T	1,1,1,2-Tetrac...	0.337	0.331	0.357	0.356	0.372	0.362	0.352	4.39
67)	C	Ethyl Benzene	1.566	1.794	1.889	1.952	1.972	1.888	1.843	8.11#
68)	T	m/p-Xylenes	0.555	0.672	0.711	0.724	0.715	0.673	0.675	9.27
69)	T	o-Xylene	0.609	0.689	0.702	0.706	0.707	0.670	0.681	5.52
70)	T	Styrene	0.879	1.060	1.170	1.181	1.183	1.134	1.101	10.75
71)	P	Bromoform	0.209	0.234	0.276	0.276	0.300	0.300	0.266	13.94
72)	I	1,4-Dichlorobenzen...	-----ISTD-----							
73)	T	Isopropylbenzene	3.397	4.034	3.999	4.135	4.006	3.845	3.903	6.79
74)	T	N-amyl acetate	1.349	1.578	1.890	1.977	2.078	2.116	1.831	16.62
75)	P	1,1,2,2-Tetrac...	1.395	1.479	1.513	1.419	1.391	1.396	1.432	3.60
76)	T	1,2,3-Trichlor...	1.181	1.201	1.193	1.147	1.131	1.130	1.164	2.73
77)	T	Bromobenzene	0.899	0.947	0.939	0.939	0.910	0.891	0.921	2.57
78)	T	n-propylbenzene	3.451	4.375	4.577	4.805	4.696	4.548	4.409	11.14
79)	T	2-Chlorotoluene	2.788	2.888	2.828	2.869	2.770	2.702	2.808	2.45
80)	T	1,3,5-Trimethy...	2.611	3.211	3.373	3.384	3.224	3.131	3.156	9.01
81)	T	trans-1,4-Dich...	0.268	0.313	0.339	0.376	0.405	0.340		15.78
82)	T	4-Chlorotoluene	2.800	3.015	3.078	3.234	3.140	3.092	3.060	4.80
83)	T	tert-Butylbenzene	3.029	3.256	3.342	3.375	3.292	3.160	3.242	3.96
84)	T	1,2,4-Trimethy...	2.646	3.202	3.380	3.378	3.258	3.188	3.175	8.57
85)	T	sec-Butylbenzene	3.000	3.847	4.137	4.215	4.125	3.978	3.884	11.65
86)	T	p-Isopropyltol...	2.511	2.986	3.266	3.424	3.369	3.275	3.139	10.91
87)	T	1,3-Dichlorobe...	1.502	1.652	1.710	1.668	1.675	1.649	1.643	4.40
88)	T	1,4-Dichlorobe...	1.605	1.702	1.665	1.687	1.669	1.643	1.662	2.06
89)	T	n-Butylbenzene	1.905	2.359	2.788	3.013	3.099	3.057	2.703	17.67
90)	T	Hexachloroethane	0.470	0.498	0.568	0.605	0.633	0.633	0.568	12.30
91)	T	1,2-Dichlorobe...	1.479	1.695	1.735	1.668	1.687	1.622	1.648	5.50
92)	T	1,2-Dibromo-3-...	0.237	0.243	0.285	0.289	0.300	0.320	0.279	11.64
93)	T	1,2,4-Trichlor...	0.668	0.821	0.978	1.009	1.074	1.080	0.938	17.32
94)	T	Hexachlorobuta...	0.356	0.369	0.390	0.392	0.406	0.395	0.385	4.77
95)	T	Naphthalene	2.573	3.115	3.866	3.902	4.091	4.082	3.605	17.21
96)	T	1,2,3-Trichlor...	0.747	0.897	1.032	1.059	1.107	1.096	0.990	14.23

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045068.D
 Acq On : 28 Feb 2025 01:27
 Operator : JC/MD
 Sample : VSTDICC001
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC001

Quant Time: Feb 28 06:28:57 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:18:23 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :John Carlone 02/28/2025
 Supervised By :Mahesh Dadoda 02/28/2025

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

Internal Standards						
1) Pentafluorobenzene	5.550	168	102761	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	188642	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	159886	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	64845	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	0.000	65	0d	0.000	ug/l	
Spiked Amount	50.000	Range	74 - 125	Recovery	=	0.000%#
35) Dibromofluoromethane	0.000	113	0d	0.000	ug/l	
Spiked Amount	50.000	Range	75 - 124	Recovery	=	0.000%#
50) Toluene-d8	0.000	98	0d	0.000	ug/l	
Spiked Amount	50.000	Range	86 - 113	Recovery	=	0.000%#
62) 4-Bromofluorobenzene	0.000	95	0d	0.000	ug/l	
Spiked Amount	50.000	Range	77 - 121	Recovery	=	0.000%#
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.166	85	1282	1.007	ug/l	90
3) Chloromethane	1.301	50	1552	0.975	ug/l	91
4) Vinyl Chloride	1.368	62	1588	1.008	ug/l #	85
6) Chloroethane	1.673	64	766m	0.992	ug/l	
7) Trichlorofluoromethane	1.880	101	2011	0.957	ug/l	97
8) Diethyl Ether	2.130	74	835	1.045	ug/l	80
9) 1,1,2-Trichlorotrifluo...	2.319	101	1081	0.884	ug/l	87
12) 1,1-Dichloroethene	2.313	96	1251	0.991	ug/l	92
14) Allyl chloride	2.660	41	2343	1.055	ug/l	93
15) Acrylonitrile	3.075	53	4067	4.931	ug/l	99
16) Acetone	2.380	43	4259	5.635	ug/l	100
17) Carbon Disulfide	2.502	76	3256	0.956	ug/l #	92
18) Methyl Acetate	2.703	43	1960	1.066	ug/l	93
19) Methyl tert-butyl Ether	3.111	73	4017	0.943	ug/l	91
20) Methylene Chloride	2.782	84	1656	1.095	ug/l	98
21) trans-1,2-Dichloroethene	3.093	96	1109	0.869	ug/l	91
22) Diisopropyl ether	3.764	45	4026	0.871	ug/l #	80
23) Vinyl Acetate	3.727	43	15271	3.971	ug/l	97
24) 1,1-Dichloroethane	3.605	63	2467	0.958	ug/l #	83
25) 2-Butanone	4.587	43	4894	4.252	ug/l	96
26) 2,2-Dichloropropane	4.471	77	1066	0.872	ug/l #	56
27) cis-1,2-Dichloroethene	4.501	96	1412	0.902	ug/l #	19
28) Bromochloromethane	4.885	49	1144	0.958	ug/l #	54
29) Tetrahydrofuran	5.032	42	3719	4.809	ug/l #	34
30) Chloroform	5.093	83	2478	0.978	ug/l	92
32) 1,1,1-Trichloroethane	5.373	97	1867	0.893	ug/l #	52
36) 1,1-Dichloropropene	5.690	75	1681	0.967	ug/l #	84
37) Ethyl Acetate	4.739	43	2223m	0.988	ug/l	
38) Carbon Tetrachloride	5.672	117	1747m	0.987	ug/l	
39) Methylcyclohexane	7.385	83	1750	0.831	ug/l	88
40) Benzene	6.031	78	4984	0.907	ug/l	99
41) Methacrylonitrile	4.958	41	1072m	0.879	ug/l	
42) 1,2-Dichloroethane	6.099	62	1837	0.924	ug/l	78
43) Isopropyl Acetate	6.355	43	2545	0.767	ug/l #	95
44) Trichloroethene	7.129	130	1202	0.933	ug/l	65
45) 1,2-Dichloropropane	7.434	63	1334	0.971	ug/l #	82

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045068.D
 Acq On : 28 Feb 2025 01:27
 Operator : JC/MD
 Sample : VSTDICC001
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC001

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 06:28:57 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:18:23 2025
 Response via : Initial Calibration

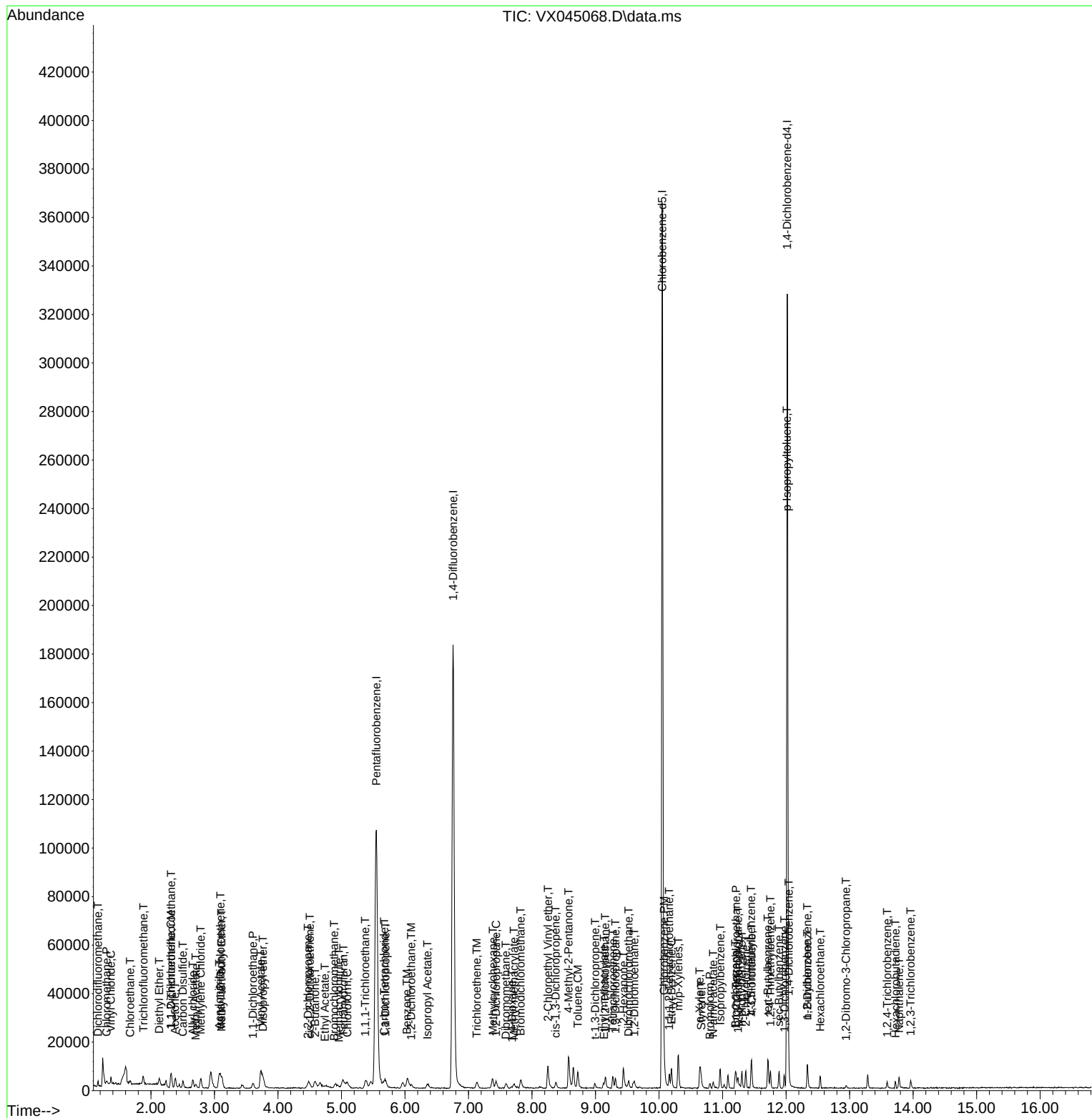
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) Dibromomethane	7.586	93	891	0.897	ug/l	92
47) Bromodichloromethane	7.818	83	1802	0.927	ug/l #	85
48) Methyl methacrylate	7.714	41	1328m	0.825	ug/l	
49) 1,4-Dioxane	7.684	88	639	18.144	ug/l #	81
51) 4-Methyl-2-Pentanone	8.574	43	10091	4.567	ug/l	95
52) Toluene	8.720	92	2700	0.841	ug/l	97
53) t-1,3-Dichloropropene	8.994	75	1147	0.700	ug/l #	85
54) cis-1,3-Dichloropropene	8.373	75	1525	0.804	ug/l #	90
55) 1,1,2-Trichloroethane	9.153	97	1306	1.004	ug/l #	90
56) Ethyl methacrylate	9.135	69	1494	0.748	ug/l #	93
57) 1,3-Dichloropropane	9.311	76	2112	0.920	ug/l	97
58) 2-Chloroethyl Vinyl ether	8.251	63	4115	4.320	ug/l	95
59) 2-Hexanone	9.439	43	6582	4.153	ug/l	96
60) Dibromochloromethane	9.519	129	1152	0.835	ug/l	98
61) 1,2-Dibromoethane	9.610	107	1174	0.890	ug/l	97
64) Tetrachloroethene	9.275	164	1006	0.986	ug/l #	88
65) Chlorobenzene	10.080	112	3094	0.908	ug/l	90
66) 1,1,1,2-Tetrachloroethane	10.159	131	1078	0.978	ug/l #	65
67) Ethyl Benzene	10.195	91	5008	0.846	ug/l #	85
68) m/p-Xylenes	10.305	106	3552	1.630	ug/l	97
69) o-Xylene	10.640	106	1949	0.891	ug/l	95
70) Styrene	10.665	104	2810	0.802	ug/l	97
71) Bromoform	10.799	173	667	0.768	ug/l #	92
73) Isopropylbenzene	10.964	105	4405	0.858	ug/l	96
74) N-amyl acetate	10.854	43	1750	0.732	ug/l #	87
75) 1,1,2,2-Tetrachloroethane	11.213	83	1809	0.954	ug/l	88
76) 1,2,3-Trichloropropane	11.244	75	1531m	1.015	ug/l	
77) Bromobenzene	11.201	156	1166	0.972	ug/l	91
78) n-propylbenzene	11.305	91	4475	0.773	ug/l	97
79) 2-Chlorotoluene	11.366	91	3616	0.986	ug/l	98
80) 1,3,5-Trimethylbenzene	11.451	105	3386	0.815	ug/l	94
82) 4-Chlorotoluene	11.457	91	3631	0.904	ug/l	99
83) tert-Butylbenzene	11.713	119	3928	0.929	ug/l	96
84) 1,2,4-Trimethylbenzene	11.756	105	3432	0.827	ug/l	95
85) sec-Butylbenzene	11.890	105	3891	0.752	ug/l	100
86) p-Isopropyltoluene	12.012	119	3257	0.797	ug/l	94
87) 1,3-Dichlorobenzene	11.976	146	1948	0.913	ug/l	96
88) 1,4-Dichlorobenzene	12.043	146	2082m	0.962	ug/l	
89) n-Butylbenzene	12.335	91	2470	0.691	ug/l	93
90) Hexachloroethane	12.536	117	609	0.805	ug/l	94
91) 1,2-Dichlorobenzene	12.335	146	1918	0.890	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	12.945	75	308	0.859	ug/l	82
93) 1,2,4-Trichlorobenzene	13.591	180	866	0.706	ug/l	93
94) Hexachlorobutadiene	13.725	225	462	0.917	ug/l	94
95) Naphthalene	13.780	128	3337	0.707	ug/l #	94
96) 1,2,3-Trichlorobenzene	13.963	180	969	0.759	ug/l	93

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045069.D
 Acq On : 28 Feb 2025 02:13
 Operator : JC/MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 18 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC005

Quant Time: Feb 28 05:32:40 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

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

Internal Standards						
1) Pentafluorobenzene	5.544	168	107391	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	194243	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	172367	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	73591	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	8978	5.659	ug/l	0.01
Spiked Amount 50.000	Range 74 - 125		Recovery =	11.320%#		
35) Dibromofluoromethane	5.391	113	6398	5.039	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	10.080%#		
50) Toluene-d8	8.647	98	24037	5.057	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	10.120%#		
62) 4-Bromofluorobenzene	11.079	95	7436	4.685	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	9.360%#		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.166	85	6941	4.689	ug/l	96
3) Chloromethane	1.307	50	8819	4.896	ug/l	99
4) Vinyl Chloride	1.374	62	8106	4.608	ug/l	94
5) Bromomethane	1.593	94	3620	6.582	ug/l	96
6) Chloroethane	1.660	64	4517	6.746	ug/l	91
7) Trichlorofluoromethane	1.867	101	11392	5.056	ug/l	95
8) Diethyl Ether	2.136	74	4314	5.268	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.319	101	6586	4.894	ug/l	98
10) Methyl Iodide	2.441	142	6520	3.780	ug/l	95
11) Tert butyl alcohol	2.983	59	10164m	34.976	ug/l	
12) 1,1-Dichloroethene	2.313	96	6658	4.819	ug/l	94
13) Acrolein	2.233	56	8725	27.725	ug/l	97
14) Allyl chloride	2.654	41	11244	4.527	ug/l	96
15) Acrylonitrile	3.068	53	21381	27.072	ug/l	99
16) Acetone	2.386	43	19512	29.891	ug/l	97
17) Carbon Disulfide	2.502	76	16984	4.518	ug/l	99
18) Methyl Acetate	2.703	43	8964	4.559	ug/l	97
19) Methyl tert-butyl Ether	3.117	73	20546	4.651	ug/l	95
20) Methylene Chloride	2.782	84	7835	5.068	ug/l	97
21) trans-1,2-Dichloroethene	3.087	96	6651	4.895	ug/l	94
22) Diisopropyl ether	3.763	45	23151	4.875	ug/l #	82
23) Vinyl Acetate	3.721	43	88852	22.788	ug/l	98
24) 1,1-Dichloroethane	3.605	63	13132	4.949	ug/l	99
25) 2-Butanone	4.574	43	29277	27.819	ug/l	99
26) 2,2-Dichloropropane	4.471	77	6034	3.059	ug/l	97
27) cis-1,2-Dichloroethene	4.483	96	8012	4.892	ug/l	97
28) Bromochloromethane	4.904	49	6797	5.311	ug/l #	96
29) Tetrahydrofuran	5.013	42	20186	28.950	ug/l	99
30) Chloroform	5.093	83	13390	5.159	ug/l	96
31) Cyclohexane	5.464	56	10968	4.504	ug/l	95
32) 1,1,1-Trichloroethane	5.385	97	10654	4.876	ug/l	100
36) 1,1-Dichloropropene	5.690	75	8977	4.917	ug/l #	83
37) Ethyl Acetate	4.727	43	10459	5.035	ug/l	98
38) Carbon Tetrachloride	5.666	117	8997	5.013	ug/l	95
39) Methylcyclohexane	7.379	83	10291	4.414	ug/l	97
40) Benzene	6.037	78	28339	4.966	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045069.D
 Acq On : 28 Feb 2025 02:13
 Operator : JC/MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 18 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:32:40 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	5700	5.136	ug/l	95
42) 1,2-Dichloroethane	6.092	62	10189	5.510	ug/l	98
43) Isopropyl Acetate	6.348	43	15543	4.700	ug/l	99
44) Trichloroethene	7.129	130	6827	5.234	ug/l	99
45) 1,2-Dichloropropane	7.427	63	7342	5.177	ug/l	95
46) Dibromomethane	7.586	93	5146	5.195	ug/l	97
47) Bromodichloromethane	7.824	83	9773	5.100	ug/l	99
48) Methyl methacrylate	7.696	41	8201	5.224	ug/l	95
49) 1,4-Dioxane	7.665	88	3531	105.826	ug/l	95
51) 4-Methyl-2-Pentanone	8.574	43	55320	27.303	ug/l	99
52) Toluene	8.720	92	16933	4.997	ug/l	99
53) t-1,3-Dichloropropene	8.982	75	7548	3.985	ug/l	94
54) cis-1,3-Dichloropropene	8.366	75	8988	4.244	ug/l	92
55) 1,1,2-Trichloroethane	9.153	97	6759	5.151	ug/l	97
56) Ethyl methacrylate	9.116	69	9712	4.628	ug/l	98
57) 1,3-Dichloropropane	9.305	76	12106	5.289	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	23212	22.527	ug/l	99
59) 2-Hexanone	9.433	43	39994	27.363	ug/l	99
60) Dibromochloromethane	9.519	129	6785	4.846	ug/l	98
61) 1,2-Dibromoethane	9.610	107	6832	5.161	ug/l	95
64) Tetrachloroethene	9.269	164	5615	5.128	ug/l	93
65) Chlorobenzene	10.079	112	18161	4.908	ug/l	97
66) 1,1,1,2-Tetrachloroethane	10.159	131	5702	4.781	ug/l	96
67) Ethyl Benzene	10.195	91	30918	4.725	ug/l	98
68) m/p-Xylenes	10.299	106	23152	9.608	ug/l	97
69) o-Xylene	10.640	106	11881	4.914	ug/l	95
70) Styrene	10.659	104	18278	4.704	ug/l	99
71) Bromoform	10.799	173	4027	4.541	ug/l #	98
73) Isopropylbenzene	10.963	105	29685	4.991	ug/l	98
74) N-amyl acetate	10.848	43	11609	4.300	ug/l	97
75) 1,1,2,2-Tetrachloroethane	11.213	83	10881	5.310	ug/l	100
76) 1,2,3-Trichloropropane	11.238	75	8839m	5.384	ug/l	
77) Bromobenzene	11.195	156	6970	5.163	ug/l	96
78) n-propylbenzene	11.305	91	32196	4.694	ug/l	99
79) 2-Chlorotoluene	11.366	91	21253	5.048	ug/l	98
80) 1,3,5-Trimethylbenzene	11.451	105	23627	4.897	ug/l	99
81) trans-1,4-Dichloro-2-b...	11.018	75	1971	3.256	ug/l #	83
82) 4-Chlorotoluene	11.457	91	22190	4.761	ug/l	98
83) tert-Butylbenzene	11.713	119	23960	4.910	ug/l	97
84) 1,2,4-Trimethylbenzene	11.750	105	23561	4.960	ug/l	99
85) sec-Butylbenzene	11.890	105	28314	4.687	ug/l	99
86) p-Isopropyltoluene	12.006	119	21977	4.532	ug/l	97
87) 1,3-Dichlorobenzene	11.969	146	12157	4.926	ug/l	98
88) 1,4-Dichlorobenzene	12.042	146	12526	5.014	ug/l	96
89) n-Butylbenzene	12.335	91	17358	4.072	ug/l	99
90) Hexachloroethane	12.536	117	3665	4.052	ug/l	96
91) 1,2-Dichlorobenzene	12.335	146	12477	5.138	ug/l	95
92) 1,2-Dibromo-3-Chloropr...	12.945	75	1787	4.712	ug/l	90
93) 1,2,4-Trichlorobenzene	13.591	180	6040	4.114	ug/l	97
94) Hexachlorobutadiene	13.725	225	2716	4.640	ug/l	97
95) Naphthalene	13.780	128	22927	4.287	ug/l	99
96) 1,2,3-Trichlorobenzene	13.963	180	6600	4.437	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045069.D
Acq On : 28 Feb 2025 02:13
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By : John Carlone 02/28/2025
Supervised By : Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:32:40 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 05:28:02 2025
Response via : Initial Calibration

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

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

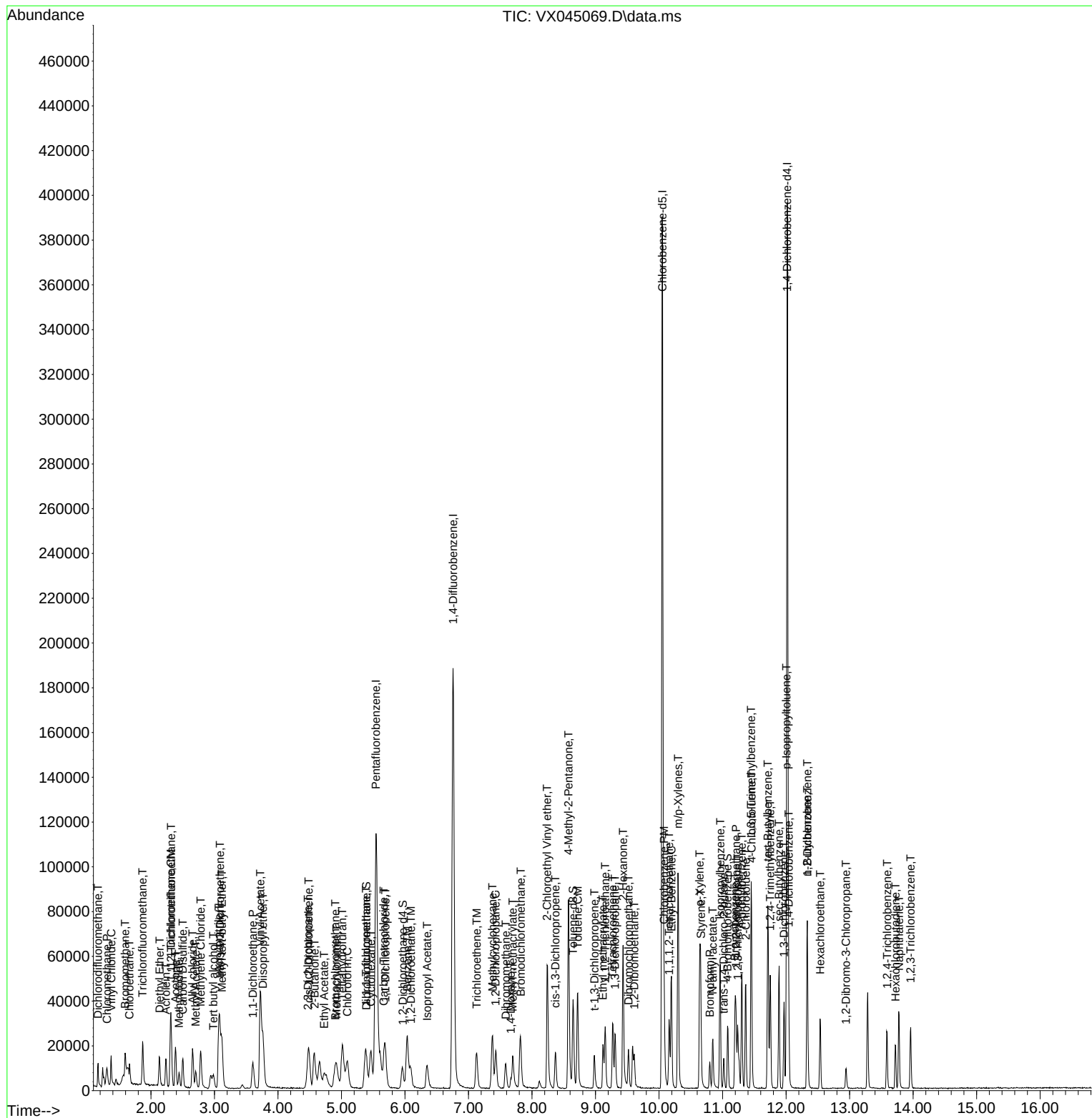
```
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\  
Data File : VX045069.D  
Acq On    : 28 Feb 2025   02:13  
Operator  : JC/MD  
Sample    : VSTDIC005  
Misc      : 5.0mL/MSVOA_X/WATER  
ALS Vial  : 18   Sample Multiplier: 1
```

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:32:40 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 05:28:02 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045070.D
 Acq On : 28 Feb 2025 02:37
 Operator : JC/MD
 Sample : VSTDICC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 19 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC020

Quant Time: Feb 28 05:33:34 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

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

Internal Standards						
1) Pentafluorobenzene	5.543	168	97338	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	177403	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	157714	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	70072	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.958	65	30514	21.221	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	42.440%#		
35) Dibromofluoromethane	5.385	113	23739	20.473	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	40.940%#		
50) Toluene-d8	8.646	98	84516	19.469	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	38.940%#		
62) 4-Bromofluorobenzene	11.079	95	27856	19.215	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	38.420%#		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.166	85	25155	18.750	ug/l	95
3) Chloromethane	1.306	50	32219	19.736	ug/l	99
4) Vinyl Chloride	1.373	62	30134	18.899	ug/l	97
5) Bromomethane	1.593	94	11584	23.239	ug/l	99
6) Chloroethane	1.660	64	14237	23.457	ug/l	99
7) Trichlorofluoromethane	1.867	101	40880	20.015	ug/l	99
8) Diethyl Ether	2.135	74	15911	21.437	ug/l	98
9) 1,1,2-Trichlorotrifluo...	2.312	101	23154	18.984	ug/l	98
10) Methyl Iodide	2.440	142	29500	18.867	ug/l	100
11) Tert butyl alcohol	2.983	59	31246	118.627	ug/l	98
12) 1,1-Dichloroethene	2.306	96	23810	19.014	ug/l	97
13) Acrolein	2.239	56	33586	117.747	ug/l	99
14) Allyl chloride	2.654	41	42993	19.096	ug/l	100
15) Acrylonitrile	3.068	53	84182	117.598	ug/l	100
16) Acetone	2.385	43	74701	126.257	ug/l	99
17) Carbon Disulfide	2.501	76	61802	18.139	ug/l	99
18) Methyl Acetate	2.709	43	35157	19.729	ug/l	99
19) Methyl tert-butyl Ether	3.117	73	82833	20.689	ug/l	96
20) Methylene Chloride	2.782	84	29281	20.895	ug/l	94
21) trans-1,2-Dichloroethene	3.080	96	23471	19.057	ug/l	97
22) Diisopropyl ether	3.763	45	90378	20.995	ug/l	93
23) Vinyl Acetate	3.721	43	381808	108.038	ug/l	99
24) 1,1-Dichloroethane	3.605	63	49826	20.716	ug/l	99
25) 2-Butanone	4.562	43	118713	124.449	ug/l	97
26) 2,2-Dichloropropane	4.470	77	22886	12.799	ug/l	99
27) cis-1,2-Dichloroethene	4.483	96	29788	20.065	ug/l	99
28) Bromochloromethane	4.891	49	23869	20.579	ug/l	99
29) Tetrahydrofuran	5.007	42	77433	122.519	ug/l	99
30) Chloroform	5.086	83	49751	21.147	ug/l	97
31) Cyclohexane	5.464	56	42340	19.181	ug/l	98
32) 1,1,1-Trichloroethane	5.373	97	39276	19.831	ug/l	99
36) 1,1-Dichloropropene	5.684	75	31519	18.903	ug/l	99
37) Ethyl Acetate	4.714	43	43097	22.714	ug/l	99
38) Carbon Tetrachloride	5.671	117	31694	19.334	ug/l	97
39) Methylcyclohexane	7.372	83	39769	18.676	ug/l	97
40) Benzene	6.031	78	105787	20.298	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045070.D
 Acq On : 28 Feb 2025 02:37
 Operator : JC/MD
 Sample : VSTDICC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 19 Sample Multiplier: 1

Instrument :

MSVOA_X

ClientSampleId :

VSTDICC020

Manual Integrations

APPROVED

Reviewed By :John Carlone 02/28/2025

Supervised By :Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:33:34 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M

Quant Title : SW846 8260

QLast Update : Fri Feb 28 05:28:02 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.928	41	23924	23.605	ug/l	97
42) 1,2-Dichloroethane	6.086	62	38653	22.886	ug/l	99
43) Isopropyl Acetate	6.348	43	66727	22.094	ug/l	99
44) Trichloroethene	7.122	130	24052	20.191	ug/l	98
45) 1,2-Dichloropropane	7.427	63	27128	20.945	ug/l	99
46) Dibromomethane	7.580	93	19323	21.357	ug/l	97
47) Bromodichloromethane	7.817	83	38038	21.732	ug/l	97
48) Methyl methacrylate	7.695	41	32627	22.757	ug/l	98
49) 1,4-Dioxane	7.665	88	14602	479.170	ug/l	97
51) 4-Methyl-2-Pentanone	8.573	43	229615	124.081	ug/l	98
52) Toluene	8.714	92	63326	20.463	ug/l	100
53) t-1,3-Dichloropropene	8.976	75	30917	17.871	ug/l	97
54) cis-1,3-Dichloropropene	8.366	75	36118	18.675	ug/l	97
55) 1,1,2-Trichloroethane	9.152	97	26358	21.992	ug/l	99
56) Ethyl methacrylate	9.116	69	39850	20.791	ug/l	97
57) 1,3-Dichloropropane	9.305	76	45644	21.836	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	96311	102.342	ug/l	99
59) 2-Hexanone	9.433	43	168768	126.428	ug/l	100
60) Dibromochloromethane	9.518	129	27705	21.668	ug/l	99
61) 1,2-Dibromoethane	9.610	107	26311	21.764	ug/l	98
64) Tetrachloroethene	9.268	164	20140	20.102	ug/l	97
65) Chlorobenzene	10.079	112	68777	20.316	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.158	131	22508	20.627	ug/l	97
67) Ethyl Benzene	10.189	91	119165	19.905	ug/l	100
68) m/p-Xylenes	10.299	106	89735	40.699	ug/l	98
69) o-Xylene	10.640	106	44281	20.018	ug/l	98
70) Styrene	10.652	104	73832	20.767	ug/l	98
71) Bromoform	10.799	173	17403	21.449	ug/l #	99
73) Isopropylbenzene	10.963	105	112099	19.794	ug/l	99
74) N-amyl acetate	10.841	43	52972	20.606	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.213	83	42413	21.738	ug/l	100
76) 1,2,3-Trichloropropane	11.237	75	33440m	21.394	ug/l	
77) Bromobenzene	11.195	156	26310	20.466	ug/l	99
78) n-propylbenzene	11.305	91	128284	19.641	ug/l	100
79) 2-Chlorotoluene	11.359	91	79275	19.775	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	94545	20.581	ug/l	98
81) trans-1,4-Dichloro-2-b...	11.018	75	8759	15.196	ug/l	96
82) 4-Chlorotoluene	11.451	91	86281	19.443	ug/l	98
83) tert-Butylbenzene	11.713	119	93670	20.159	ug/l	99
84) 1,2,4-Trimethylbenzene	11.750	105	94734	20.943	ug/l	100
85) sec-Butylbenzene	11.890	105	115953	20.160	ug/l	100
86) p-Isopropyltoluene	12.006	119	91554	19.827	ug/l	99
87) 1,3-Dichlorobenzene	11.969	146	47934	20.400	ug/l	97
88) 1,4-Dichlorobenzene	12.042	146	46657	19.615	ug/l	99
89) n-Butylbenzene	12.329	91	78135	19.249	ug/l	100
90) Hexachloroethane	12.536	117	15919	18.483	ug/l	98
91) 1,2-Dichlorobenzene	12.335	146	48632	21.031	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	12.944	75	7987	22.119	ug/l	99
93) 1,2,4-Trichlorobenzene	13.585	180	27424	19.617	ug/l	99
94) Hexachlorobutadiene	13.725	225	10934	19.616	ug/l	99
95) Naphthalene	13.774	128	108350	21.279	ug/l	100
96) 1,2,3-Trichlorobenzene	13.963	180	28937	20.432	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045070.D
Acq On : 28 Feb 2025 02:37
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By : John Carlone 02/28/2025
Supervised By : Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:33:34 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 05:28:02 2025
Response via : Initial Calibration

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

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

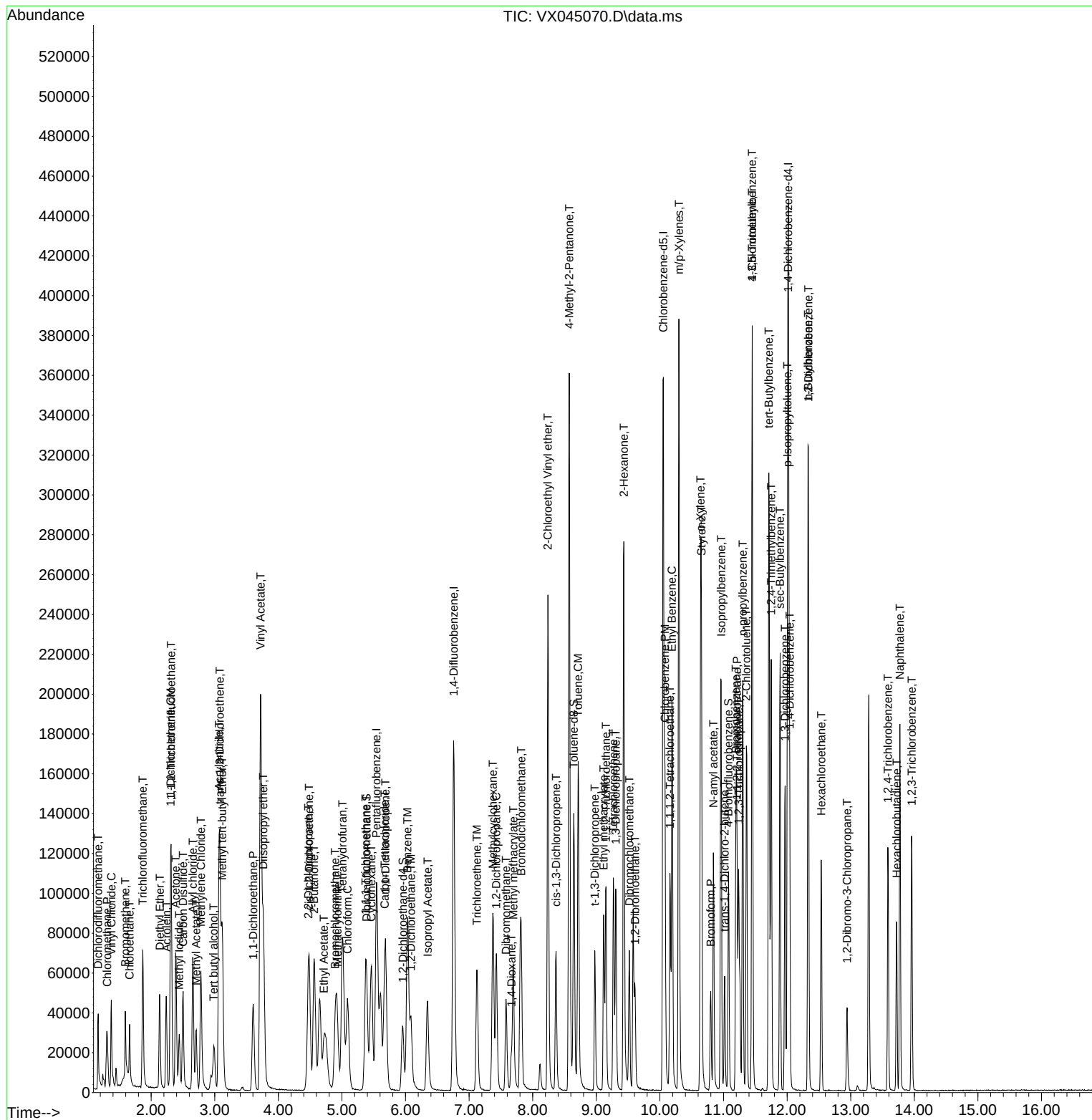
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045070.D
Acq On : 28 Feb 2025 02:37
Operator : JC/MD
Sample : VSTDIC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:33:34 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 05:28:02 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045071.D
 Acq On : 28 Feb 2025 03:00
 Operator : JC/MD
 Sample : VSTDICCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 20 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:34:27 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	5.550	168	103235	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	186358	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	162079	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	71264	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	78159	51.250	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 102.500%			
35) Dibromofluoromethane	5.385	113	61323	50.346	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 100.700%			
50) Toluene-d8	8.647	98	225493	49.449	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 98.900%			
62) 4-Bromofluorobenzene	11.079	95	74945	49.212	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 98.420%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.166	85	64743	45.502	ug/l	100
3) Chloromethane	1.307	50	77729	44.894	ug/l	100
4) Vinyl Chloride	1.374	62	78524	46.434	ug/l	100
5) Bromomethane	1.593	94	30169	57.066	ug/l	100
6) Chloroethane	1.660	64	38461	59.750	ug/l	100
7) Trichlorofluoromethane	1.868	101	108411	50.047	ug/l	100
8) Diethyl Ether	2.136	74	40001	50.814	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.313	101	61312	47.399	ug/l	100
10) Methyl Iodide	2.441	142	79357	47.854	ug/l	100
11) Tert butyl alcohol	2.983	59	69139	247.496	ug/l	100
12) 1,1-Dichloroethene	2.307	96	64327	48.434	ug/l	100
13) Acrolein	2.233	56	89603	296.189	ug/l	100
14) Allyl chloride	2.654	41	114313	47.875	ug/l	100
15) Acrylonitrile	3.062	53	211455	278.519	ug/l	100
16) Acetone	2.386	43	181429	289.130	ug/l	100
17) Carbon Disulfide	2.502	76	171353	47.419	ug/l	100
18) Methyl Acetate	2.703	43	89508	47.359	ug/l	100
19) Methyl tert-butyl Ether	3.117	73	215043	50.642	ug/l	100
20) Methylene Chloride	2.782	84	72081	48.500	ug/l	100
21) trans-1,2-Dichloroethene	3.087	96	65093	49.832	ug/l	100
22) Diisopropyl ether	3.764	45	236563	51.816	ug/l	100
23) Vinyl Acetate	3.721	43	1018631	271.773	ug/l	100
24) 1,1-Dichloroethane	3.605	63	128235	50.270	ug/l	100
25) 2-Butanone	4.562	43	298785	295.330	ug/l	100
26) 2,2-Dichloropropane	4.471	77	61631	32.498	ug/l	100
27) cis-1,2-Dichloroethene	4.483	96	78657	49.955	ug/l	100
28) Bromochloromethane	4.898	49	62299	50.643	ug/l	100
29) Tetrahydrofuran	5.007	42	192607	287.345	ug/l	100
30) Chloroform	5.087	83	128581	51.532	ug/l	100
31) Cyclohexane	5.464	56	114333	48.836	ug/l	100
32) 1,1,1-Trichloroethane	5.379	97	105671	50.306	ug/l	100
36) 1,1-Dichloropropene	5.690	75	87338	49.861	ug/l	100
37) Ethyl Acetate	4.715	43	112892	56.641	ug/l	100
38) Carbon Tetrachloride	5.672	117	87123	50.593	ug/l	100
39) Methylcyclohexane	7.373	83	108974	48.715	ug/l	100
40) Benzene	6.031	78	278802	50.925	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045071.D
 Acq On : 28 Feb 2025 03:00
 Operator : JC/MD
 Sample : VSTDICCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 20 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:34:27 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	63454	59.598	ug/l	100
42) 1,2-Dichloroethane	6.080	62	98340	55.428	ug/l	100
43) Isopropyl Acetate	6.342	43	173045	54.544	ug/l	100
44) Trichloroethene	7.123	130	63513	50.756	ug/l	100
45) 1,2-Dichloropropane	7.428	63	69128	50.808	ug/l	100
46) Dibromomethane	7.580	93	50143	52.757	ug/l	100
47) Bromodichloromethane	7.818	83	97729	53.153	ug/l	100
48) Methyl methacrylate	7.690	41	86231	57.256	ug/l	100
49) 1,4-Dioxane	7.659	88	35053	1095.003	ug/l	100
51) 4-Methyl-2-Pentanone	8.574	43	568737	292.570	ug/l	100
52) Toluene	8.714	92	167431	51.505	ug/l	100
53) t-1,3-Dichloropropene	8.976	75	87373	48.078	ug/l	100
54) cis-1,3-Dichloropropene	8.366	75	99713	49.079	ug/l	100
55) 1,1,2-Trichloroethane	9.147	97	66379	52.724	ug/l	100
56) Ethyl methacrylate	9.116	69	106157	52.724	ug/l	100
57) 1,3-Dichloropropane	9.305	76	115488	52.594	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	264555	267.612	ug/l	100
59) 2-Hexanone	9.427	43	416984	297.362	ug/l	100
60) Dibromochloromethane	9.519	129	71569	53.284	ug/l	100
61) 1,2-Dibromoethane	9.604	107	66312	52.217	ug/l	100
64) Tetrachloroethene	9.269	164	52531	51.021	ug/l	100
65) Chlorobenzene	10.079	112	176922	50.853	ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.159	131	57642	51.402	ug/l	100
67) Ethyl Benzene	10.189	91	316427	51.431	ug/l	100
68) m/p-Xylenes	10.299	106	234554	103.515	ug/l	100
69) o-Xylene	10.640	106	114440	50.341	ug/l	100
70) Styrene	10.653	104	191406	52.387	ug/l	100
71) Bromoform	10.799	173	44730	53.645	ug/l #	100
73) Isopropylbenzene	10.963	105	294694	51.167	ug/l	100
74) N-amyl acetate	10.842	43	140869	53.881	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.213	83	101089	50.945	ug/l	100
76) 1,2,3-Trichloropropane	11.238	75	81743m	51.421	ug/l	
77) Bromobenzene	11.195	156	66904	51.173	ug/l	100
78) n-propylbenzene	11.305	91	342399	51.546	ug/l	100
79) 2-Chlorotoluene	11.360	91	204484	50.154	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	241129	51.613	ug/l	100
81) trans-1,4-Dichloro-2-b...	11.018	75	24135	41.172	ug/l	100
82) 4-Chlorotoluene	11.451	91	230493	51.072	ug/l	100
83) tert-Butylbenzene	11.713	119	240510	50.895	ug/l	100
84) 1,2,4-Trimethylbenzene	11.750	105	240719	52.326	ug/l	100
85) sec-Butylbenzene	11.890	105	300393	51.353	ug/l	100
86) p-Isopropyltoluene	12.006	119	244031	51.964	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	118879	49.747	ug/l	100
88) 1,4-Dichlorobenzene	12.036	146	120217	49.694	ug/l	100
89) n-Butylbenzene	12.329	91	214685	52.006	ug/l	100
90) Hexachloroethane	12.536	117	43086	49.188	ug/l	100
91) 1,2-Dichlorobenzene	12.335	146	118896	50.557	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	20610	56.123	ug/l	100
93) 1,2,4-Trichlorobenzene	13.585	180	71897	50.571	ug/l	100
94) Hexachlorobutadiene	13.725	225	27916	49.245	ug/l	100
95) Naphthalene	13.774	128	278086	53.700	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	75482	52.406	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045071.D
Acq On : 28 Feb 2025 03:00
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 20 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:34:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 05:28:02 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_X
ClientSampleId :
VSTDICCC050

Manual Integrations

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045072.D
 Acq On : 28 Feb 2025 03:23
 Operator : JC/MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 21 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC100

Quant Time: Feb 28 05:35:19 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

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

Internal Standards						
1) Pentafluorobenzene	5.550	168	101178	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	181031	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	151175	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	69086	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	158452	106.011	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 212.020%#			
35) Dibromofluoromethane	5.385	113	123185	104.110	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 208.220%#			
50) Toluene-d8	8.647	98	441188	99.595	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 199.200%#			
62) 4-Bromofluorobenzene	11.079	95	148476	100.365	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 200.720%#			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.166	85	126718	90.869	ug/l	95
3) Chloromethane	1.306	50	145825	85.936	ug/l	98
4) Vinyl Chloride	1.373	62	154734	93.360	ug/l	96
5) Bromomethane	1.593	94	57503	110.980	ug/l	97
6) Chloroethane	1.660	64	60155	95.351	ug/l	97
7) Trichlorofluoromethane	1.861	101	198701	93.594	ug/l	99
8) Diethyl Ether	2.135	74	78263	101.441	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.312	101	120518	95.064	ug/l	98
10) Methyl Iodide	2.440	142	153466	94.425	ug/l	99
11) Tert butyl alcohol	3.001	59	135016	493.141	ug/l	98
12) 1,1-Dichloroethene	2.306	96	125436	96.366	ug/l	98
13) Acrolein	2.239	56	180411	608.485	ug/l	99
14) Allyl chloride	2.654	41	220783	94.344	ug/l	98
15) Acrylonitrile	3.068	53	391946	526.749	ug/l	100
16) Acetone	2.392	43	348698	566.991	ug/l	99
17) Carbon Disulfide	2.495	76	345572	97.574	ug/l	98
18) Methyl Acetate	2.709	43	175784	94.899	ug/l	98
19) Methyl tert-butyl Ether	3.117	73	431413	103.661	ug/l	100
20) Methylene Chloride	2.782	84	140388	96.381	ug/l	98
21) trans-1,2-Dichloroethene	3.080	96	128232	100.164	ug/l	98
22) Diisopropyl ether	3.763	45	467534	104.489	ug/l	98
23) Vinyl Acetate	3.721	43	2035880	554.219	ug/l	99
24) 1,1-Dichloroethane	3.605	63	257023	102.805	ug/l	100
25) 2-Butanone	4.562	43	559182	563.952	ug/l	99
26) 2,2-Dichloropropane	4.470	77	124805	67.148	ug/l	100
27) cis-1,2-Dichloroethene	4.483	96	155193	100.568	ug/l	99
28) Bromochloromethane	4.897	49	113848	94.428	ug/l	98
29) Tetrahydrofuran	5.007	42	365565	556.465	ug/l	100
30) Chloroform	5.092	83	248978	101.814	ug/l	97
31) Cyclohexane	5.464	56	231082	100.711	ug/l	97
32) 1,1,1-Trichloroethane	5.379	97	211302	102.638	ug/l	99
36) 1,1-Dichloropropene	5.690	75	172295	101.258	ug/l	99
37) Ethyl Acetate	4.720	43	220327	113.796	ug/l	99
38) Carbon Tetrachloride	5.671	117	177219	105.940	ug/l	97
39) Methylcyclohexane	7.372	83	219856	101.175	ug/l	99
40) Benzene	6.031	78	541974	101.908	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045072.D
 Acq On : 28 Feb 2025 03:23
 Operator : JC/MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 21 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :John Carlone 02/28/2025
 Supervised By :Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:35:19 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	120186	116.205	ug/l	98
42) 1,2-Dichloroethane	6.086	62	189857	110.158	ug/l	99
43) Isopropyl Acetate	6.342	43	338414	109.806	ug/l	99
44) Trichloroethene	7.122	130	128124	105.402	ug/l	96
45) 1,2-Dichloropropane	7.427	63	135997	102.898	ug/l	100
46) Dibromomethane	7.580	93	97248	105.329	ug/l	99
47) Bromodichloromethane	7.817	83	191016	106.947	ug/l	97
48) Methyl methacrylate	7.695	41	165825	113.344	ug/l	99
49) 1,4-Dioxane	7.665	88	66308	2132.314	ug/l	99
51) 4-Methyl-2-Pentanone	8.573	43	1048140	555.050	ug/l	99
52) Toluene	8.714	92	316349	100.178	ug/l	100
53) t-1,3-Dichloropropene	8.976	75	177352	100.462	ug/l	97
54) cis-1,3-Dichloropropene	8.366	75	200943	101.815	ug/l	98
55) 1,1,2-Trichloroethane	9.146	97	123426	100.920	ug/l	99
56) Ethyl methacrylate	9.116	69	208782	106.744	ug/l	100
57) 1,3-Dichloropropane	9.305	76	216267	101.387	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	494551	514.987	ug/l	99
59) 2-Hexanone	9.433	43	779492	572.233	ug/l	99
60) Dibromochloromethane	9.518	129	139245	106.719	ug/l	99
61) 1,2-Dibromoethane	9.610	107	128617	104.259	ug/l	99
64) Tetrachloroethene	9.268	164	99386	103.491	ug/l	98
65) Chlorobenzene	10.079	112	332473	102.456	ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.158	131	112451	107.511	ug/l	96
67) Ethyl Benzene	10.189	91	596257	103.905	ug/l	100
68) m/p-Xylenes	10.299	106	432214	204.507	ug/l	99
69) o-Xylene	10.640	106	213835	100.849	ug/l	99
70) Styrene	10.652	104	357649	104.948	ug/l	99
71) Bromoform	10.799	173	90800	116.751	ug/l #	99
73) Isopropylbenzene	10.963	105	553533	99.138	ug/l	99
74) N-amyl acetate	10.841	43	287104	113.277	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.213	83	192217	99.923	ug/l	98
76) 1,2,3-Trichloropropane	11.238	75	156259m	101.395	ug/l	
77) Bromobenzene	11.195	156	125700	99.175	ug/l	97
78) n-propylbenzene	11.305	91	648835	100.758	ug/l	99
79) 2-Chlorotoluene	11.359	91	382703	96.825	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	445466	98.356	ug/l	99
81) trans-1,4-Dichloro-2-b...	11.018	75	51975	91.460	ug/l	99
82) 4-Chlorotoluene	11.451	91	433881	99.168	ug/l	100
83) tert-Butylbenzene	11.713	119	454859	99.288	ug/l	99
84) 1,2,4-Trimethylbenzene	11.750	105	450108	100.926	ug/l	99
85) sec-Butylbenzene	11.890	105	570006	100.517	ug/l	100
86) p-Isopropyltoluene	12.006	119	465512	102.252	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	231440	99.903	ug/l	100
88) 1,4-Dichlorobenzene	12.042	146	230663	98.355	ug/l	99
89) n-Butylbenzene	12.329	91	428209	107.000	ug/l	99
90) Hexachloroethane	12.536	117	87448	102.980	ug/l	99
91) 1,2-Dichlorobenzene	12.335	146	233125	102.254	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	12.938	75	41402	116.296	ug/l	99
93) 1,2,4-Trichlorobenzene	13.585	180	148368	107.648	ug/l	99
94) Hexachlorobutadiene	13.725	225	56065	102.019	ug/l	99
95) Naphthalene	13.774	128	565250	112.593	ug/l	100
96) 1,2,3-Trichlorobenzene	13.963	180	152970	109.554	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045072.D
Acq On : 28 Feb 2025 03:23
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:35:19 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 05:28:02 2025
Response via : Initial Calibration

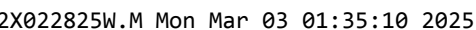
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045073.D
 Acq On : 28 Feb 2025 03:47
 Operator : JC/MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC150

Quant Time: Feb 28 05:36:17 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

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

Internal Standards						
1) Pentafluorobenzene	5.544	168	95754	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	176991	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	150547	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.024	152	67685	50.000	ug/l	# 0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	5.952	65	234624	165.865	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	= 331.740%#	
35) Dibromofluoromethane	5.379	113	179722	155.359	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	= 310.720%#	
50) Toluene-d8	8.647	98	638979	147.538	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	= 295.080%#	
62) 4-Bromofluorobenzene	11.079	95	223346	154.420	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	= 308.840%#	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.166	85	174297	132.067	ug/l	96
3) Chloromethane	1.307	50	213704	133.072	ug/l	97
4) Vinyl Chloride	1.374	62	217672	138.774	ug/l	97
5) Bromomethane	1.593	94	83547	170.379	ug/l	98
6) Chloroethane	1.660	64	82101	137.509	ug/l	95
7) Trichlorofluoromethane	1.861	101	272235	135.494	ug/l	98
8) Diethyl Ether	2.136	74	110005	150.660	ug/l	98
9) 1,1,2-Trichlorotrifluo...	2.313	101	161825	134.877	ug/l	99
10) Methyl Iodide	2.441	142	212355	138.059	ug/l	99
11) Tert butyl alcohol	3.014	59	195415	754.176	ug/l	97
12) 1,1-Dichloroethene	2.300	96	173271	140.655	ug/l	96
13) Acrolein	2.239	56	263999	940.846	ug/l	98
14) Allyl chloride	2.654	41	308018	139.077	ug/l	98
15) Acrylonitrile	3.069	53	573208	813.990	ug/l	99
16) Acetone	2.392	43	511828	879.387	ug/l	100
17) Carbon Disulfide	2.495	76	487720	145.511	ug/l	98
18) Methyl Acetate	2.709	43	258303	147.347	ug/l	100
19) Methyl tert-butyl Ether	3.117	73	619778	157.358	ug/l	99
20) Methylene Chloride	2.782	84	202913	147.198	ug/l	99
21) trans-1,2-Dichloroethene	3.081	96	176924	146.027	ug/l	98
22) Diisopropyl ether	3.764	45	662828	156.526	ug/l	98
23) Vinyl Acetate	3.721	43	2943150	846.586	ug/l	99
24) 1,1-Dichloroethane	3.605	63	363081	153.453	ug/l	99
25) 2-Butanone	4.568	43	818497	872.239	ug/l	99
26) 2,2-Dichloropropane	4.465	77	179826	102.231	ug/l	99
27) cis-1,2-Dichloroethene	4.483	96	220826	151.205	ug/l	98
28) Bromochloromethane	4.891	49	171273	150.105	ug/l	100
29) Tetrahydrofuran	5.007	42	528574	850.174	ug/l	99
30) Chloroform	5.093	83	351934	152.067	ug/l	97
31) Cyclohexane	5.458	56	302215	139.174	ug/l	96
32) 1,1,1-Trichloroethane	5.379	97	294434	151.120	ug/l	100
36) 1,1-Dichloropropene	5.684	75	241405	145.112	ug/l	100
37) Ethyl Acetate	4.721	43	316250	167.067	ug/l	99
38) Carbon Tetrachloride	5.672	117	245917	150.363	ug/l	99
39) Methylcyclohexane	7.373	83	292216	137.544	ug/l	97
40) Benzene	6.031	78	755854	145.368	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045073.D
 Acq On : 28 Feb 2025 03:47
 Operator : JC/MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC150

Quant Time: Feb 28 05:36:17 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 05:28:02 2025
 Response via : Initial Calibration

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.928	41	175023	173.088	ug/l	99
42) 1,2-Dichloroethane	6.080	62	276129	163.872	ug/l	99
43) Isopropyl Acetate	6.342	43	511643	169.804	ug/l	99
44) Trichloroethene	7.123	130	178483	150.181	ug/l	97
45) 1,2-Dichloropropane	7.428	63	198135	153.334	ug/l	100
46) Dibromomethane	7.580	93	142119	157.443	ug/l	99
47) Bromodichloromethane	7.818	83	280255	160.492	ug/l	99
48) Methyl methacrylate	7.696	41	252275	176.370	ug/l	99
49) 1,4-Dioxane	7.665	88	96268	3166.423	ug/l	99
51) 4-Methyl-2-Pentanone	8.580	43	1536157	832.051	ug/l	99
52) Toluene	8.714	92	448664	145.321	ug/l	99
53) t-1,3-Dichloropropene	8.976	75	266444	154.373	ug/l	96
54) cis-1,3-Dichloropropene	8.366	75	293521	152.117	ug/l	96
55) 1,1,2-Trichloroethane	9.147	97	178217	149.046	ug/l	98
56) Ethyl methacrylate	9.116	69	310992	162.631	ug/l	98
57) 1,3-Dichloropropane	9.305	76	312196	149.699	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	717328	764.019	ug/l	99
59) 2-Hexanone	9.433	43	1156653	868.492	ug/l	100
60) Dibromochloromethane	9.519	129	201906	158.276	ug/l	99
61) 1,2-Dibromoethane	9.610	107	185828	154.074	ug/l	100
64) Tetrachloroethene	9.269	164	139536	145.906	ug/l	94
65) Chlorobenzene	10.079	112	472117	146.096	ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.159	131	163370	156.845	ug/l	97
67) Ethyl Benzene	10.189	91	852575	149.191	ug/l	99
68) m/p-Xylenes	10.299	106	607523	288.655	ug/l	97
69) o-Xylene	10.640	106	302495	143.259	ug/l	99
70) Styrene	10.653	104	512379	150.979	ug/l	99
71) Bromoform	10.799	173	135388	174.808	ug/l #	99
73) Isopropylbenzene	10.963	105	780706	142.719	ug/l	99
74) N-amyl acetate	10.842	43	429686	173.042	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.213	83	283558	150.458	ug/l	99
76) 1,2,3-Trichloropropane	11.238	75	229435m	151.960	ug/l	
77) Bromobenzene	11.195	156	180997	145.760	ug/l	96
78) n-propylbenzene	11.305	91	923593	146.395	ug/l	99
79) 2-Chlorotoluene	11.366	91	548695	141.695	ug/l	99
80) 1,3,5-Trimethylbenzene	11.451	105	635832	143.293	ug/l	98
81) trans-1,4-Dichloro-2-b...	11.018	75	82267	147.761	ug/l	98
82) 4-Chlorotoluene	11.451	91	627816	146.464	ug/l	99
83) tert-Butylbenzene	11.713	119	641713	142.974	ug/l	99
84) 1,2,4-Trimethylbenzene	11.750	105	647248	148.135	ug/l	100
85) sec-Butylbenzene	11.890	105	807713	145.383	ug/l	100
86) p-Isopropyltoluene	12.006	119	664916	149.075	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	334751	147.488	ug/l	100
88) 1,4-Dichlorobenzene	12.043	146	333594	145.189	ug/l	99
89) n-Butylbenzene	12.329	91	620757	158.324	ug/l	99
90) Hexachloroethane	12.536	117	128582	154.554	ug/l	100
91) 1,2-Dichlorobenzene	12.335	146	329318	147.436	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	64958	186.240	ug/l	98
93) 1,2,4-Trichlorobenzene	13.585	180	219313	162.416	ug/l	99
94) Hexachlorobutadiene	13.725	225	80241	149.034	ug/l	99
95) Naphthalene	13.774	128	828949	168.538	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	222608	162.727	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045073.D
Acq On : 28 Feb 2025 03:47
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 22 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 05:36:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 05:28:02 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_X
ClientSampleId :
VSTDICC150

Manual Integrations

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045075.D
 Acq On : 28 Feb 2025 04:33
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 24 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022825

Quant Time: Feb 28 06:55:08 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :John Carlone 02/28/2025
 Supervised By :Mahesh Dadoda 02/28/2025

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

Internal Standards						
1) Pentafluorobenzene	5.550	168	101603	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	184964	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	157797	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	69357	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	81288	50.297	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 100.600%			
35) Dibromofluoromethane	5.385	113	62880	50.841	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.680%			
50) Toluene-d8	8.647	98	225823	50.364	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 100.720%			
62) 4-Bromofluorobenzene	11.079	95	73162	49.240	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 98.480%			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.166	85	61303	47.933	ug/l	95
3) Chloromethane	1.306	50	76216	48.696	ug/l	94
4) Vinyl Chloride	1.373	62	76901	49.529	ug/l	97
5) Bromomethane	1.593	94	28193	46.190	ug/l	97
6) Chloroethane	1.660	64	30042	41.948	ug/l	99
7) Trichlorofluoromethane	1.867	101	101886	49.569	ug/l	98
8) Diethyl Ether	2.136	74	39113	48.651	ug/l	96
9) 1,1,2-Trichlorotrifluo...	2.312	101	59477	50.367	ug/l	100
10) Methyl Iodide	2.440	142	74585	50.541	ug/l	98
11) Tert butyl alcohol	2.989	59	73034	238.577	ug/l	98
12) 1,1-Dichloroethene	2.306	96	61885	49.568	ug/l	98
13) Acrolein	2.239	56	95989	271.255	ug/l	99
14) Allyl chloride	2.654	41	114875	51.691	ug/l	98
15) Acrylonitrile	3.068	53	209607	255.479	ug/l	99
16) Acetone	2.392	43	182119	242.877	ug/l	100
17) Carbon Disulfide	2.501	76	166105	49.952	ug/l	97
18) Methyl Acetate	2.709	43	90756	50.312	ug/l	99
19) Methyl tert-butyl Ether	3.117	73	222475	53.114	ug/l	99
20) Methylene Chloride	2.782	84	73731	49.639	ug/l	98
21) trans-1,2-Dichloroethene	3.081	96	63117	51.172	ug/l	98
22) Diisopropyl ether	3.763	45	243860	53.955	ug/l	97
23) Vinyl Acetate	3.721	43	1064817	282.313	ug/l	100
24) 1,1-Dichloroethane	3.605	63	129666	51.190	ug/l	100
25) 2-Butanone	4.562	43	298021	264.040	ug/l	98
26) 2,2-Dichloropropane	4.471	77	58694	49.401	ug/l	99
27) cis-1,2-Dichloroethene	4.483	96	78576	51.606	ug/l	100
28) Bromochloromethane	4.891	49	60849	50.399	ug/l	100
29) Tetrahydrofuran	5.007	42	195768	258.277	ug/l	99
30) Chloroform	5.086	83	126437	50.236	ug/l	98
31) Cyclohexane	5.464	56	110288	50.158	ug/l	98
32) 1,1,1-Trichloroethane	5.373	97	103546	50.939	ug/l	99
36) 1,1-Dichloropropene	5.684	75	82722	48.770	ug/l	99
37) Ethyl Acetate	4.714	43	112768	51.596	ug/l	99
38) Carbon Tetrachloride	5.672	117	85110	49.425	ug/l	99
39) Methylcyclohexane	7.372	83	103996	51.169	ug/l	98
40) Benzene	6.031	78	274206	51.195	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045075.D
 Acq On : 28 Feb 2025 04:33
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 24 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022825

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/28/2025
 Supervised By : Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 06:55:08 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	63051	53.352	ug/l	99
42) 1,2-Dichloroethane	6.080	62	97821	50.718	ug/l	100
43) Isopropyl Acetate	6.342	43	175982	54.452	ug/l	100
44) Trichloroethene	7.122	130	61530	48.924	ug/l	99
45) 1,2-Dichloropropane	7.427	63	70350	51.086	ug/l	97
46) Dibromomethane	7.580	93	50284	51.661	ug/l	99
47) Bromodichloromethane	7.817	83	97236	50.930	ug/l	99
48) Methyl methacrylate	7.689	41	87582	54.016	ug/l	100
49) 1,4-Dioxane	7.665	88	35878	1049.007	ug/l	98
51) 4-Methyl-2-Pentanone	8.573	43	564197	259.995	ug/l	99
52) Toluene	8.714	92	160331	51.020	ug/l	99
53) t-1,3-Dichloropropene	8.976	75	86584	54.247	ug/l	99
54) cis-1,3-Dichloropropene	8.366	75	98146	52.732	ug/l	95
55) 1,1,2-Trichloroethane	9.146	97	64985	50.232	ug/l	99
56) Ethyl methacrylate	9.116	69	106405	54.109	ug/l	100
57) 1,3-Dichloropropane	9.305	76	114880	51.312	ug/l	99
58) 2-Chloroethyl Vinyl ether	8.238	63	264335	275.557	ug/l	99
59) 2-Hexanone	9.427	43	416731	265.049	ug/l	99
60) Dibromochloromethane	9.518	129	69492	51.374	ug/l	98
61) 1,2-Dibromoethane	9.610	107	66501	51.492	ug/l	99
64) Tetrachloroethene	9.268	164	50659	50.126	ug/l	96
65) Chlorobenzene	10.079	112	168885	50.580	ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.159	131	56822	51.102	ug/l	98
67) Ethyl Benzene	10.189	91	300324	51.621	ug/l	100
68) m/p-Xylenes	10.299	106	220335	103.454	ug/l	99
69) o-Xylene	10.640	106	108836	50.668	ug/l	100
70) Styrene	10.652	104	181349	52.177	ug/l	100
71) Bromoform	10.799	173	44135	52.636	ug/l #	100
73) Isopropylbenzene	10.957	105	279278	51.589	ug/l	99
74) N-amyl acetate	10.841	43	144412	56.851	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.213	83	100800	50.741	ug/l	99
76) 1,2,3-Trichloropropane	11.238	75	80618m	49.940	ug/l	
77) Bromobenzene	11.195	156	64324	50.360	ug/l	100
78) n-propylbenzene	11.305	91	319235	52.203	ug/l	99
79) 2-Chlorotoluene	11.360	91	192150	49.338	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	225622	51.544	ug/l	100
81) trans-1,4-Dichloro-2-b...	11.018	75	23943	50.757	ug/l	99
82) 4-Chlorotoluene	11.451	91	216511	51.009	ug/l	100
83) tert-Butylbenzene	11.713	119	227357	50.552	ug/l	100
84) 1,2,4-Trimethylbenzene	11.750	105	228729	51.932	ug/l	100
85) sec-Butylbenzene	11.890	105	283931	52.703	ug/l	100
86) p-Isopropyltoluene	12.006	119	229894	52.803	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	114778	50.372	ug/l	100
88) 1,4-Dichlorobenzene	12.036	146	115486	50.097	ug/l	99
89) n-Butylbenzene	12.329	91	204972	54.662	ug/l	99
90) Hexachloroethane	12.536	117	40844	51.866	ug/l	99
91) 1,2-Dichlorobenzene	12.335	146	116343	50.899	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	12.938	75	20589	53.199	ug/l	99
93) 1,2,4-Trichlorobenzene	13.585	180	71368	54.834	ug/l	98
94) Hexachlorobutadiene	13.725	225	26697	50.032	ug/l	99
95) Naphthalene	13.774	128	275844	55.163	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	74211	54.049	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045075.D
Acq On : 28 Feb 2025 04:33
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX022825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025

Quant Time: Feb 28 06:55:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 2025
Response via : Initial Calibration

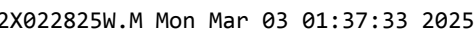
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX022825

Manual Integrations APPROVED

Reviewed By :John Carlone 02/28/2025
Supervised By :Mahesh Dadoda 02/28/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045075.D
 Acq On : 28 Feb 2025 04:33
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 24 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022825

Quant Time: Feb 28 06:55:08 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 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	98	0.00
2 T	Dichlorodifluoromethane	0.629	0.603	4.1	95	0.00
3 P	Chloromethane	0.770	0.750	2.6	98	0.00
4 C	Vinyl Chloride	0.764	0.757	0.9#	98	0.00
5 T	Bromomethane	0.300	0.277	7.7	93	0.00
6 T	Chloroethane	0.352	0.296	15.9	78	0.00
7 T	Trichlorofluoromethane	1.011	1.003	0.8	94	0.00
8 T	Diethyl Ether	0.396	0.385	2.8	98	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.581	0.585	-0.7	97	0.00
10 T	Methyl Iodide	0.726	0.734	-1.1	94	0.00
11 T	Tert butyl alcohol	0.151	0.144	4.6	106	0.00
12 CM	1,1-Dichloroethene	0.614	0.609	0.8#	96	0.00
13 T	Acrolein	0.174	0.189	-8.6	107	0.00
14 T	Allyl chloride	1.094	1.131	-3.4	100	0.00
15 T	Acrylonitrile	0.404	0.413	-2.2	99	0.00
16 T	Acetone	0.369	0.358	3.0	100	0.00
17 T	Carbon Disulfide	1.636	1.635	0.1	97	0.00
18 T	Methyl Acetate	0.888	0.893	-0.6	101	0.00
19 T	Methyl tert-butyl Ether	2.061	2.190	-6.3	103	0.00
20 T	Methylene Chloride	0.731	0.726	0.7	102	0.00
21 T	trans-1,2-Dichloroethene	0.607	0.621	-2.3	97	0.00
22 T	Diisopropyl ether	2.224	2.400	-7.9	103	0.00
23 T	Vinyl Acetate	1.856	2.096	-12.9	105	0.00
24 P	1,1-Dichloroethane	1.247	1.276	-2.3	101	0.00
25 T	2-Butanone	0.555	0.587	-5.8	100	0.00
26 T	2,2-Dichloropropane	0.585	0.578	1.2	95	0.00
27 T	cis-1,2-Dichloroethene	0.749	0.773	-3.2	100	0.00
28 T	Bromochloromethane	0.594	0.599	-0.8	98	0.00
29 T	Tetrahydrofuran	0.373	0.385	-3.2	102	0.00
30 C	Chloroform	1.239	1.244	-0.4#	98	0.00
31 T	Cyclohexane	1.082	1.085	-0.3	96	0.00
32 T	1,1,1-Trichloroethane	1.000	1.019	-1.9	98	0.00
33 S	1,2-Dichloroethane-d4	0.795	0.800	-0.6	104	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	99	0.00
35 S	Dibromofluoromethane	0.334	0.340	-1.8	103	0.00
36 T	1,1-Dichloropropene	0.459	0.447	2.6	95	0.00
37 T	Ethyl Acetate	0.591	0.610	-3.2	100	0.00
38 T	Carbon Tetrachloride	0.465	0.460	1.1	98	0.00
39 T	Methylcyclohexane	0.549	0.562	-2.4	95	0.00
40 TM	Benzene	1.448	1.482	-2.3	98	0.00
41 T	Methacrylonitrile	0.319	0.341	-6.9	99	0.00
42 TM	1,2-Dichloroethane	0.521	0.529	-1.5	99	0.00
43 T	Isopropyl Acetate	0.874	0.951	-8.8	102	0.00
44 TM	Trichloroethene	0.340	0.333	2.1	97	0.00
45 C	1,2-Dichloropropane	0.372	0.380	-2.2#	102	0.00
46 T	Dibromomethane	0.263	0.272	-3.4	100	0.00
47 T	Bromodichloromethane	0.516	0.526	-1.9	99	0.00
48 T	Methyl methacrylate	0.438	0.474	-8.2	102	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045075.D
 Acq On : 28 Feb 2025 04:33
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 24 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022825

Quant Time: Feb 28 06:55:08 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 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	0.009	0.010	-11.1	102	0.00
50 S	Toluene-d8	1.212	1.221	-0.7	100	0.00
51 T	4-Methyl-2-Pentanone	0.587	0.610	-3.9	99	0.00
52 CM	Toluene	0.849	0.867	-2.1#	96	0.00
53 T	t-1,3-Dichloropropene	0.431	0.468	-8.6	99	0.00
54 T	cis-1,3-Dichloropropene	0.503	0.531	-5.6	98	0.00
55 T	1,1,2-Trichloroethane	0.350	0.351	-0.3	98	0.00
56 T	Ethyl methacrylate	0.532	0.575	-8.1	100	0.00
57 T	1,3-Dichloropropane	0.605	0.621	-2.6	99	0.00
58 T	2-Chloroethyl Vinyl ether	0.259	0.286	-10.4	100	0.00
59 T	2-Hexanone	0.425	0.451	-6.1	100	0.00
60 T	Dibromochloromethane	0.366	0.376	-2.7	97	0.00
61 T	1,2-Dibromoethane	0.349	0.360	-3.2	100	0.00
62 S	4-Bromofluorobenzene	0.402	0.396	1.5	98	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	97	0.00
64 T	Tetrachloroethene	0.320	0.321	-0.3	96	0.00
65 PM	Chlorobenzene	1.058	1.070	-1.1	95	0.00
66 T	1,1,1,2-Tetrachloroethane	0.352	0.360	-2.3	99	0.00
67 C	Ethyl Benzene	1.843	1.903	-3.3#	95	0.00
68 T	m/p-Xylenes	0.675	0.698	-3.4	94	0.00
69 T	o-Xylene	0.681	0.690	-1.3	95	0.00
70 T	Styrene	1.101	1.149	-4.4	95	0.00
71 P	Bromoform	0.266	0.280	-5.3	99	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
73 T	Isopropylbenzene	3.903	4.027	-3.2	95	0.00
74 T	N-amyl acetate	1.831	2.082	-13.7	103	0.00
75 P	1,1,2,2-Tetrachloroethane	1.432	1.453	-1.5	100	0.00
76 T	1,2,3-Trichloropropane	1.164	1.162	0.2	99	0.00
77 T	Bromobenzene	0.921	0.927	-0.7	96	0.00
78 T	n-propylbenzene	4.409	4.603	-4.4	93	0.00
79 T	2-Chlorotoluene	2.808	2.770	1.4	94	0.00
80 T	1,3,5-Trimethylbenzene	3.156	3.253	-3.1	94	0.00
81 T	trans-1,4-Dichloro-2-butene	0.340	0.345	-1.5	99	0.00
82 T	4-Chlorotoluene	3.060	3.122	-2.0	94	0.00
83 T	tert-Butylbenzene	3.242	3.278	-1.1	95	0.00
84 T	1,2,4-Trimethylbenzene	3.175	3.298	-3.9	95	0.00
85 T	sec-Butylbenzene	3.884	4.094	-5.4	95	0.00
86 T	p-Isopropyltoluene	3.139	3.315	-5.6	94	0.00
87 T	1,3-Dichlorobenzene	1.643	1.655	-0.7	97	0.00
88 T	1,4-Dichlorobenzene	1.662	1.665	-0.2	96	0.00
89 T	n-Butylbenzene	2.703	2.955	-9.3	95	0.00
90 T	Hexachloroethane	0.568	0.589	-3.7	95	0.00
91 T	1,2-Dichlorobenzene	1.648	1.677	-1.8	98	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.279	0.297	-6.5	100	0.00
93 T	1,2,4-Trichlorobenzene	0.938	1.029	-9.7	99	0.00
94 T	Hexachlorobutadiene	0.385	0.385	0.0	96	0.00
95 T	Naphthalene	3.605	3.977	-10.3	99	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045075.D
Acq On : 28 Feb 2025 04:33
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX022825

Quant Time: Feb 28 06:55:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 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	0.990	1.070	-8.1	98	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045075.D
 Acq On : 28 Feb 2025 04:33
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 24 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022825

Quant Time: Feb 28 06:55:08 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 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	98	0.00
2 T	Dichlorodifluoromethane	50.000	47.933	4.1	95	0.00
3 P	Chloromethane	50.000	48.696	2.6	98	0.00
4 C	Vinyl Chloride	50.000	49.529	0.9#	98	0.00
5 T	Bromomethane	50.000	46.190	7.6	93	0.00
6 T	Chloroethane	50.000	41.948	16.1	78	0.00
7 T	Trichlorofluoromethane	50.000	49.569	0.9	94	0.00
8 T	Diethyl Ether	50.000	48.651	2.7	98	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	50.367	-0.7	97	0.00
10 T	Methyl Iodide	50.000	50.541	-1.1	94	0.00
11 T	Tert butyl alcohol	250.000	238.577	4.6	106	0.00
12 CM	1,1-Dichloroethene	50.000	49.568	0.9#	96	0.00
13 T	Acrolein	250.000	271.255	-8.5	107	0.00
14 T	Allyl chloride	50.000	51.691	-3.4	100	0.00
15 T	Acrylonitrile	250.000	255.479	-2.2	99	0.00
16 T	Acetone	250.000	242.877	2.8	100	0.00
17 T	Carbon Disulfide	50.000	49.952	0.1	97	0.00
18 T	Methyl Acetate	50.000	50.312	-0.6	101	0.00
19 T	Methyl tert-butyl Ether	50.000	53.114	-6.2	103	0.00
20 T	Methylene Chloride	50.000	49.639	0.7	102	0.00
21 T	trans-1,2-Dichloroethene	50.000	51.172	-2.3	97	0.00
22 T	Diisopropyl ether	50.000	53.955	-7.9	103	0.00
23 T	Vinyl Acetate	250.000	282.313	-12.9	105	0.00
24 P	1,1-Dichloroethane	50.000	51.190	-2.4	101	0.00
25 T	2-Butanone	250.000	264.040	-5.6	100	0.00
26 T	2,2-Dichloropropane	50.000	49.401	1.2	95	0.00
27 T	cis-1,2-Dichloroethene	50.000	51.606	-3.2	100	0.00
28 T	Bromochloromethane	50.000	50.399	-0.8	98	0.00
29 T	Tetrahydrofuran	250.000	258.277	-3.3	102	0.00
30 C	Chloroform	50.000	50.236	-0.5#	98	0.00
31 T	Cyclohexane	50.000	50.158	-0.3	96	0.00
32 T	1,1,1-Trichloroethane	50.000	50.939	-1.9	98	0.00
33 S	1,2-Dichloroethane-d4	50.000	50.297	-0.6	104	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	99	0.00
35 S	Dibromofluoromethane	50.000	50.841	-1.7	103	0.00
36 T	1,1-Dichloropropene	50.000	48.770	2.5	95	0.00
37 T	Ethyl Acetate	50.000	51.596	-3.2	100	0.00
38 T	Carbon Tetrachloride	50.000	49.425	1.2	98	0.00
39 T	Methylcyclohexane	50.000	51.169	-2.3	95	0.00
40 TM	Benzene	50.000	51.195	-2.4	98	0.00
41 T	Methacrylonitrile	50.000	53.352	-6.7	99	0.00
42 TM	1,2-Dichloroethane	50.000	50.718	-1.4	99	0.00
43 T	Isopropyl Acetate	50.000	54.452	-8.9	102	0.00
44 TM	Trichloroethene	50.000	48.924	2.2	97	0.00
45 C	1,2-Dichloropropane	50.000	51.086	-2.2#	102	0.00
46 T	Dibromomethane	50.000	51.661	-3.3	100	0.00
47 T	Bromodichloromethane	50.000	50.930	-1.9	99	0.00
48 T	Methyl methacrylate	50.000	54.016	-8.0	102	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
 Data File : VX045075.D
 Acq On : 28 Feb 2025 04:33
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 24 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022825

Quant Time: Feb 28 06:55:08 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 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	1049.007	-4.9	102	0.00
50 S	Toluene-d8	50.000	50.364	-0.7	100	0.00
51 T	4-Methyl-2-Pentanone	250.000	259.995	-4.0	99	0.00
52 CM	Toluene	50.000	51.020	-2.0#	96	0.00
53 T	t-1,3-Dichloropropene	50.000	54.247	-8.5	99	0.00
54 T	cis-1,3-Dichloropropene	50.000	52.732	-5.5	98	0.00
55 T	1,1,2-Trichloroethane	50.000	50.232	-0.5	98	0.00
56 T	Ethyl methacrylate	50.000	54.109	-8.2	100	0.00
57 T	1,3-Dichloropropane	50.000	51.312	-2.6	99	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	275.557	-10.2	100	0.00
59 T	2-Hexanone	250.000	265.049	-6.0	100	0.00
60 T	Dibromochloromethane	50.000	51.374	-2.7	97	0.00
61 T	1,2-Dibromoethane	50.000	51.492	-3.0	100	0.00
62 S	4-Bromofluorobenzene	50.000	49.240	1.5	98	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	97	0.00
64 T	Tetrachloroethene	50.000	50.126	-0.3	96	0.00
65 PM	Chlorobenzene	50.000	50.580	-1.2	95	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	51.102	-2.2	99	0.00
67 C	Ethyl Benzene	50.000	51.621	-3.2#	95	0.00
68 T	m/p-Xylenes	100.000	103.454	-3.5	94	0.00
69 T	o-Xylene	50.000	50.668	-1.3	95	0.00
70 T	Styrene	50.000	52.177	-4.4	95	0.00
71 P	Bromoform	50.000	52.636	-5.3	99	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	97	0.00
73 T	Isopropylbenzene	50.000	51.589	-3.2	95	0.00
74 T	N-ethyl acetate	50.000	56.851	-13.7	103	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	50.741	-1.5	100	0.00
76 T	1,2,3-Trichloropropane	50.000	49.940	0.1	99	0.00
77 T	Bromobenzene	50.000	50.360	-0.7	96	0.00
78 T	n-propylbenzene	50.000	52.203	-4.4	93	0.00
79 T	2-Chlorotoluene	50.000	49.338	1.3	94	0.00
80 T	1,3,5-Trimethylbenzene	50.000	51.544	-3.1	94	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	50.757	-1.5	99	0.00
82 T	4-Chlorotoluene	50.000	51.009	-2.0	94	0.00
83 T	tert-Butylbenzene	50.000	50.552	-1.1	95	0.00
84 T	1,2,4-Trimethylbenzene	50.000	51.932	-3.9	95	0.00
85 T	sec-Butylbenzene	50.000	52.703	-5.4	95	0.00
86 T	p-Isopropyltoluene	50.000	52.803	-5.6	94	0.00
87 T	1,3-Dichlorobenzene	50.000	50.372	-0.7	97	0.00
88 T	1,4-Dichlorobenzene	50.000	50.097	-0.2	96	0.00
89 T	n-Butylbenzene	50.000	54.662	-9.3	95	0.00
90 T	Hexachloroethane	50.000	51.866	-3.7	95	0.00
91 T	1,2-Dichlorobenzene	50.000	50.899	-1.8	98	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	53.199	-6.4	100	0.00
93 T	1,2,4-Trichlorobenzene	50.000	54.834	-9.7	99	0.00
94 T	Hexachlorobutadiene	50.000	50.032	-0.1	96	0.00
95 T	Naphthalene	50.000	55.163	-10.3	99	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045075.D
Acq On : 28 Feb 2025 04:33
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX022825

Quant Time: Feb 28 06:55:08 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 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	54.049	-8.1	98	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: CHEMTECH Contract: GENV01
 Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448
 Instrument ID: MSVOA_Y Calibration Date(s): 02/25/2025 02/25/2025
 Heated Purge: (Y/N) Y Calibration Time(s): 12:40 16:49
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:	RRF005 = VY021309.D		RRF010 = VY021310.D		RRF020 = VY021311.D		RRF050 = VY021312.D		RRF150 = VY021314.D		RRF100 = VY021316.D	
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF150	RRF100	RRF	% RSD				
Chloromethane	0.709	0.628	0.566	0.602	0.597	0.570	0.612	8.6				
Vinyl Chloride	0.648	0.591	0.554	0.627	0.606	0.580	0.601	5.6				
Bromomethane	0.505	0.414	0.361	0.387	0.371	0.359	0.399	13.9				
Chloroethane	0.414	0.365	0.347	0.390	0.365	0.355	0.373	6.7				
Tert butyl alcohol	0.058	0.047	0.042	0.040	0.039	0.034	0.044	18.9				
1,1-Dichloroethene	0.545	0.489	0.462	0.515	0.518	0.490	0.503	5.7				
Acetone	0.122	0.102	0.094	0.128	0.104	0.103	0.109	11.9				
Carbon Disulfide	1.800	1.652	1.540	1.734	1.678	1.620	1.671	5.4				
Methyl tert-butyl Ether	1.312	1.268	1.267	1.410	1.410	1.307	1.329	4.9				
Methylene Chloride	0.733	0.598	0.539	0.585	0.547	0.529	0.588	12.8				
trans-1,2-Dichloroethene	0.589	0.536	0.507	0.573	0.570	0.547	0.554	5.4				
1,1-Dichloroethane	1.101	1.032	0.961	1.083	1.058	1.007	1.040	4.9				
2-Butanone	0.162	0.155	0.156	0.183	0.171	0.159	0.164	6.5				
Carbon Tetrachloride	0.567	0.562	0.509	0.581	0.567	0.535	0.554	4.8				
cis-1,2-Dichloroethene	0.649	0.610	0.588	0.665	0.656	0.626	0.632	4.7				
Chloroform	1.128	1.046	0.977	1.095	1.062	1.017	1.054	5.1				
1,1,1-Trichloroethane	1.020	0.956	0.889	0.986	0.979	0.927	0.960	4.8				
Benzene	1.515	1.445	1.359	1.533	1.472	1.409	1.456	4.5				
1,2-Dichloroethane	0.422	0.417	0.393	0.434	0.419	0.394	0.413	3.9				
Trichloroethene	0.375	0.360	0.341	0.382	0.375	0.354	0.364	4.3				
1,2-Dichloropropane	0.360	0.350	0.329	0.371	0.357	0.336	0.350	4.5				
Bromodichloromethane	0.519	0.503	0.477	0.541	0.528	0.495	0.511	4.5				
4-Methyl-2-Pentanone	0.220	0.227	0.239	0.267	0.264	0.238	0.243	7.9				
Toluene	0.887	0.888	0.852	0.965	0.936	0.897	0.904	4.4				
t-1,3-Dichloropropene	0.438	0.436	0.434	0.515	0.509	0.474	0.468	8				
cis-1,3-Dichloropropene	0.541	0.526	0.528	0.591	0.581	0.546	0.552	5				
1,1,2-Trichloroethane	0.250	0.251	0.238	0.267	0.254	0.237	0.249	4.4				
2-Hexanone	0.133	0.146	0.155	0.183	0.178	0.162	0.159	11.9				
Dibromochloromethane	0.340	0.325	0.322	0.368	0.352	0.332	0.340	5.2				
Tetrachloroethene	0.405	0.380	0.351	0.389	0.386	0.355	0.378	5.5				

* 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.



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: GENV01
 Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448
 Instrument ID: MSVOA_Y Calibration Date(s): 02/25/2025 02/25/2025
 Heated Purge: (Y/N) Y Calibration Time(s): 12:40 16:49
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VY021309.D		RRF010 = VY021310.D		RRF020 = VY021311.D		
		RRF050 = VY021312.D		RRF150 = VY021314.D		RRF100 = VY021316.D		
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF150	RRF100	RRF	% RSD
Chlorobenzene	1.171	1.111	1.039	1.176	1.159	1.078	1.122	5
Ethyl Benzene	1.938	1.941	1.826	2.130	2.115	1.979	1.988	5.8
m/p-Xylenes	0.735	0.738	0.696	0.802	0.783	0.733	0.748	5.1
o-Xylene	0.689	0.675	0.648	0.758	0.739	0.694	0.701	5.9
Styrene	1.081	1.128	1.091	1.277	1.257	1.159	1.166	7.2
Bromoform	0.221	0.221	0.211	0.246	0.236	0.214	0.225	5.9
1,1,2,2-Tetrachloroethane	0.700	0.649	0.621	0.697	0.689	0.624	0.663	5.5
1,2-Dichloroethane-d4	0.681	0.510	0.548	0.551	0.566	0.547	0.567	10.3
Dibromofluoromethane	0.370	0.299	0.317	0.325	0.334	0.322	0.328	7.2
Toluene-d8	1.420	1.158	1.230	1.251	1.290	1.253	1.267	6.8
4-Bromofluorobenzene	0.490	0.387	0.404	0.423	0.435	0.420	0.426	8.2

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

Method Path : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\
 Method File : 82Y022525S.M
 Title : SW846 8260
 Last Update : Wed Feb 26 02:09:13 2025
 Response Via : Initial Calibration

Calibration Files

5 =VY021309.D 10 =VY021310.D 20 =VY021311.D 50 =VY021312.D 100 =VY021316.D 150 =VY021314.D

	Compound	5	10	20	50	100	150	Avg	%RSD
1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.510	0.484	0.431	0.493	0.447	0.480	0.474	6.16
3) P	Chloromethane	0.709	0.628	0.566	0.602	0.570	0.597	0.612	8.61
4) C	Vinyl Chloride	0.648	0.591	0.554	0.627	0.580	0.606	0.601	5.60#
5) T	Bromomethane	0.505	0.414	0.361	0.387	0.359	0.371	0.399	13.92
6) T	Chloroethane	0.414	0.365	0.347	0.390	0.355	0.365	0.373	6.66
7) T	Trichlorofluor...	0.976	0.915	0.838	0.936	0.870	0.909	0.908	5.33
8) T	Diethyl Ether	0.276	0.264	0.260	0.286	0.263	0.286	0.272	4.34
9) T	1,1,2-Trichlor...	0.546	0.529	0.491	0.537	0.508	0.541	0.525	4.09
10) T	Methyl Iodide	0.492	0.473	0.490	0.637	0.600	0.625	0.553	13.64
11) T	Tert butyl alc...	0.058	0.047	0.042	0.040	0.034	0.039	0.044	18.88
12) CM	1,1-Dichloroet...	0.545	0.489	0.462	0.515	0.490	0.518	0.503	5.75#
13) T	Acrolein	0.065	0.058	0.059	0.007	0.006	0.006	0.033	89.20
14) T	Allyl chloride	0.929	0.847	0.821	0.926	0.889	0.938	0.892	5.42
15) T	Acrylonitrile	0.122	0.115	0.116	0.127	0.115	0.127	0.120	5.01
16) T	Acetone	0.122	0.102	0.094	0.128	0.103	0.104	0.109	11.92
17) T	Carbon Disulfide	1.800	1.652	1.540	1.734	1.620	1.678	1.671	5.41
18) T	Methyl Acetate	0.285	0.249	0.259	0.276	0.250	0.276	0.266	5.65
19) T	Methyl tert-bu...	1.312	1.268	1.267	1.410	1.307	1.410	1.329	4.93
20) T	Methylene Chlo...	0.733	0.598	0.539	0.585	0.529	0.547	0.588	12.84
21) T	trans-1,2-Dich...	0.589	0.536	0.507	0.573	0.547	0.570	0.554	5.36
22) T	Diisopropyl ether	1.839	1.794	1.752	1.961	1.828	1.900	1.846	4.06
23) T	Vinyl Acetate	1.062	1.041	1.045	1.188	1.103	1.179	1.103	6.00
24) P	1,1-Dichloroet...	1.101	1.032	0.961	1.083	1.007	1.058	1.040	4.94
25) T	2-Butanone	0.162	0.155	0.156	0.183	0.159	0.171	0.164	6.53
26) T	2,2-Dichloropr...	1.036	0.939	0.845	0.972	0.920	0.952	0.944	6.64
27) T	cis-1,2-Dichlo...	0.649	0.610	0.588	0.665	0.626	0.656	0.632	4.68
28) T	Bromochloromet...	0.525	0.442	0.438	0.454	0.439	0.464	0.460	7.23
29) T	Tetrahydrofuran	0.105	0.100	0.106	0.115	0.104	0.114	0.107	5.36
30) C	Chloroform	1.128	1.046	0.977	1.095	1.017	1.062	1.054	5.11#
31) T	Cyclohexane	1.182	1.025	0.910	0.989	0.923	0.971	1.000	9.90
32) T	1,1,1-Trichlor...	1.020	0.956	0.889	0.986	0.927	0.979	0.960	4.81
33) S	1,2-Dichloroet...	0.681	0.510	0.548	0.551	0.547	0.566	0.567	10.35
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...	0.370	0.299	0.317	0.325	0.322	0.334	0.328	7.20
36) T	1,1-Dichloropr...	0.508	0.487	0.460	0.516	0.478	0.505	0.492	4.28
37) T	Ethyl Acetate	0.251	0.246	0.232	0.257	0.228	0.255	0.245	5.02
38) T	Carbon Tetrach...	0.567	0.562	0.509	0.581	0.535	0.567	0.554	4.80
39) T	Methylcyclohexane	0.597	0.613	0.584	0.662	0.618	0.663	0.623	5.33
40) TM	Benzene	1.515	1.445	1.359	1.533	1.409	1.472	1.456	4.48
41) T	Methacrylonitrile	0.162	0.118	0.120	0.147	0.129	0.146	0.137	12.55
42) TM	1,2-Dichloroet...	0.422	0.417	0.393	0.434	0.394	0.419	0.413	3.91
43) T	Isopropyl Acetate	0.443	0.447	0.464	0.513	0.466	0.511	0.474	6.49
44) TM	Trichloroethene	0.375	0.360	0.341	0.382	0.354	0.375	0.364	4.29
45) C	1,2-Dichloropr...	0.360	0.350	0.329	0.371	0.336	0.357	0.350	4.49#
46) T	Dibromomethane	0.192	0.188	0.183	0.203	0.184	0.199	0.191	4.22
47) T	Bromodichlorom...	0.519	0.503	0.477	0.541	0.495	0.528	0.511	4.54
48) T	Methyl methacr...	0.197	0.201	0.208	0.247	0.225	0.251	0.222	10.59
49) T	1,4-Dioxane	0.002	0.002	0.002	0.002	0.002	0.002	0.002	6.15
50) S	Toluene-d8	1.420	1.158	1.230	1.251	1.253	1.290	1.267	6.83
51) T	4-Methyl-2-Pen...	0.220	0.227	0.239	0.267	0.238	0.264	0.243	7.94
52) CM	Toluene	0.887	0.888	0.852	0.965	0.897	0.936	0.904	4.42#
53) T	t-1,3-Dichloro...	0.438	0.436	0.434	0.515	0.474	0.509	0.468	8.02
54) T	cis-1,3-Dichlo...	0.541	0.526	0.528	0.591	0.546	0.581	0.552	4.97
55) T	1,1,2-Trichlor...	0.250	0.251	0.238	0.267	0.237	0.254	0.249	4.42
56) T	Ethyl methacry...	0.294	0.308	0.315	0.392	0.360	0.398	0.345	13.04

Method Path : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\
 Method File : 82Y022525S.M

57)	T	1,3-Dichloropr...	0.427	0.428	0.422	0.469	0.426	0.454	0.438	4.39
58)	T	2-Chloroethyl ...	0.140	0.146	0.159	0.191	0.177	0.179	0.165	12.21
59)	T	2-Hexanone	0.133	0.146	0.155	0.183	0.162	0.178	0.159	11.90
60)	T	Dibromochlorom...	0.340	0.325	0.322	0.368	0.332	0.352	0.340	5.17
61)	T	1,2-Dibromoethane	0.234	0.231	0.226	0.254	0.227	0.245	0.236	4.72
62)	S	4-Bromofluorob...	0.490	0.387	0.404	0.423	0.420	0.435	0.426	8.25
63)	I	Chlorobenzene-d5	-----ISTD-----							
64)	T	Tetrachloroethene	0.405	0.380	0.351	0.389	0.355	0.386	0.378	5.52
65)	PM	Chlorobenzene	1.171	1.111	1.039	1.176	1.078	1.159	1.122	4.97
66)	T	1,1,1,2-Tetrac...	0.396	0.401	0.362	0.414	0.381	0.404	0.393	4.71
67)	C	Ethyl Benzene	1.938	1.941	1.826	2.130	1.979	2.115	1.988	5.85#
68)	T	m/p-Xylenes	0.735	0.738	0.696	0.802	0.733	0.783	0.748	5.13
69)	T	o-Xylene	0.689	0.675	0.648	0.758	0.694	0.739	0.701	5.86
70)	T	Styrene	1.081	1.128	1.091	1.276	1.159	1.257	1.166	7.15
71)	P	Bromoform	0.221	0.221	0.211	0.246	0.214	0.236	0.225	5.89
72)	I	1,4-Dichlorobenzen...	-----ISTD-----							
73)	T	Isopropylbenzene	3.744	3.605	3.437	3.976	3.783	4.009	3.759	5.80
74)	T	N-amyl acetate	0.818	0.854	0.904	1.060	0.990	1.106	0.955	12.07
75)	P	1,1,2,2-Tetrac...	0.700	0.649	0.621	0.697	0.624	0.689	0.663	5.52
76)	T	1,2,3-Trichlor...	0.517	0.547	0.448	0.523	0.474	0.493	0.500	7.19
77)	T	Bromobenzene	0.919	0.843	0.806	0.908	0.854	0.915	0.874	5.34
78)	T	n-propylbenzene	4.532	4.403	4.216	4.830	4.546	4.842	4.561	5.34
79)	T	2-Chlorotoluene	2.741	2.558	2.412	2.715	2.551	2.730	2.618	5.05
80)	T	1,3,5-Trimethy...	3.092	2.977	2.873	3.250	3.042	3.264	3.083	4.99
81)	T	trans-1,4-Dich...	0.210	0.209	0.208	0.244	0.225	0.255	0.225	8.86
82)	T	4-Chlorotoluene	2.871	2.665	2.496	2.815	2.633	2.802	2.714	5.19
83)	T	tert-Butylbenzene	2.703	2.753	2.601	2.892	2.760	3.000	2.785	5.08
84)	T	1,2,4-Trimethy...	3.014	2.958	2.860	3.248	3.048	3.269	3.066	5.28
85)	T	sec-Butylbenzene	4.126	4.003	3.760	4.257	3.987	4.274	4.068	4.75
86)	T	p-Isopropyltol...	3.340	3.267	3.162	3.593	3.377	3.641	3.397	5.48
87)	T	1,3-Dichlorobe...	1.812	1.729	1.598	1.792	1.668	1.777	1.730	4.77
88)	T	1,4-Dichlorobe...	1.825	1.710	1.593	1.751	1.629	1.744	1.709	4.99
89)	T	n-Butylbenzene	3.078	3.050	2.931	3.421	3.218	3.481	3.196	6.82
90)	T	Hexachloroethane	0.759	0.690	0.638	0.721	0.693	0.755	0.710	6.43
91)	T	1,2-Dichlorobe...	1.599	1.499	1.408	1.575	1.446	1.564	1.515	5.09
92)	T	1,2-Dibromo-3-...	0.103	0.097	0.099	0.113	0.102	0.115	0.105	7.23
93)	T	1,2,4-Trichlor...	0.906	0.848	0.822	0.968	0.950	1.053	0.925	9.16
94)	T	Hexachlorobuta...	0.633	0.573	0.517	0.591	0.563	0.616	0.582	7.04
95)	T	Naphthalene	1.249	1.282	1.361	1.721	1.673	1.905	1.532	17.67
96)	T	1,2,3-Trichlor...	0.742	0.719	0.698	0.824	0.809	0.896	0.781	9.62

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021309.D
 Acq On : 25 Feb 2025 12:40
 Operator : SY/MD
 Sample : VSTDICC005
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:42:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	177514	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	289913	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	247837	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	118690	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	12088	6.003	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	12.000%	#	
35) Dibromofluoromethane	7.634	113	10715	5.637	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	11.280%	#	
50) Toluene-d8	10.103	98	41158	5.603	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	11.200%	#	
62) 4-Bromofluorobenzene	12.408	95	14192	5.741	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	11.480%	#	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.861	85	9045	5.374	ug/l	99
3) Chloromethane	2.068	50	12591	5.793	ug/l	97
4) Vinyl Chloride	2.202	62	11497	5.389	ug/l	93
5) Bromomethane	2.598	94	8962	6.321	ug/l	99
6) Chloroethane	2.733	64	7351	5.556	ug/l	99
7) Trichlorofluoromethane	3.056	101	17319	5.375	ug/l #	83
8) Diethyl Ether	3.458	74	4897	5.064	ug/l	89
9) 1,1,2-Trichlorotrifluo...	3.806	101	9686	5.193	ug/l	96
10) Methyl Iodide	4.001	142	8728	4.447	ug/l	99
11) Tert butyl alcohol	4.848	59	5165	33.345	ug/l #	84
12) 1,1-Dichloroethene	3.787	96	9671	5.415	ug/l	90
13) Acrolein	3.647	56	5798	48.848	ug/l	99
14) Allyl chloride	4.379	41	16498	5.210	ug/l	99
15) Acrylonitrile	5.055	53	10830	25.330	ug/l	98
16) Acetone	3.866	43	10823	28.018	ug/l	99
17) Carbon Disulfide	4.104	76	31953	5.387	ug/l	99
18) Methyl Acetate	4.391	43	5062	5.362	ug/l #	54
19) Methyl tert-butyl Ether	5.110	73	23290	4.935	ug/l	100
20) Methylene Chloride	4.610	84	13003	6.225	ug/l	93
21) trans-1,2-Dichloroethene	5.110	96	10455	5.317	ug/l	98
22) Diisopropyl ether	6.012	45	32640	4.981	ug/l #	86
23) Vinyl Acetate	5.958	43	94244	24.067	ug/l	99
24) 1,1-Dichloroethane	5.915	63	19538	5.290	ug/l	98
25) 2-Butanone	6.890	43	14341	24.599	ug/l #	88
26) 2,2-Dichloropropane	6.884	77	18391	5.488	ug/l	100
27) cis-1,2-Dichloroethene	6.890	96	11522	5.132	ug/l	97
28) Bromochloromethane	7.244	49	9318	5.702	ug/l	99
29) Tetrahydrofuran	7.262	42	9319	24.455	ug/l	99
30) Chloroform	7.421	83	20025	5.351	ug/l	98
31) Cyclohexane	7.701	56	20990	5.912	ug/l #	86
32) 1,1,1-Trichloroethane	7.616	97	18106	5.315	ug/l	98
36) 1,1-Dichloropropene	7.829	75	14719	5.155	ug/l	98
37) Ethyl Acetate	6.982	43	7270	5.119	ug/l	98
38) Carbon Tetrachloride	7.817	117	16445	5.124	ug/l	92
39) Methylcyclohexane	9.103	83	17316	4.795	ug/l	95
40) Benzene	8.079	78	43912	5.203	ug/l	95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021309.D
 Acq On : 25 Feb 2025 12:40
 Operator : SY/MD
 Sample : VSTDIC005
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDIC005

Manual Integrations
 APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:42:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.238	41	4691m	5.908	ug/l	
42) 1,2-Dichloroethane	8.158	62	12236	5.110	ug/l	99
43) Isopropyl Acetate	8.195	43	12832	4.668	ug/l	99
44) Trichloroethene	8.859	130	10868	5.143	ug/l	100
45) 1,2-Dichloropropane	9.140	63	10426	5.133	ug/l	95
46) Dibromomethane	9.231	93	5557	5.005	ug/l	100
47) Bromodichloromethane	9.420	83	15042	5.081	ug/l	100
48) Methyl methacrylate	9.219	41	5698	4.433	ug/l	95
49) 1,4-Dioxane	9.231	88	1164	94.292	ug/l	94
51) 4-Methyl-2-Pentanone	10.000	43	31910	22.677	ug/l	100
52) Toluene	10.170	92	25715	4.905	ug/l	98
53) t-1,3-Dichloropropene	10.396	75	12697	4.682	ug/l	98
54) cis-1,3-Dichloropropene	9.853	75	15685	4.899	ug/l	99
55) 1,1,2-Trichloroethane	10.573	97	7259	5.019	ug/l	96
56) Ethyl methacrylate	10.438	69	8528	4.267	ug/l	99
57) 1,3-Dichloropropane	10.713	76	12384	4.880	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.707	63	20290	21.153	ug/l	98
59) 2-Hexanone	10.762	43	19312	20.897	ug/l	97
60) Dibromochloromethane	10.914	129	9844	4.998	ug/l	97
61) 1,2-Dibromoethane	11.018	107	6792	4.960	ug/l	98
64) Tetrachloroethene	10.646	164	10042	5.361	ug/l	96
65) Chlorobenzene	11.444	112	29025	5.217	ug/l	96
66) 1,1,1,2-Tetrachloroethane	11.518	131	9824	5.043	ug/l	99
67) Ethyl Benzene	11.518	91	48026	4.874	ug/l	97
68) m/p-Xylenes	11.627	106	36446	9.833	ug/l	100
69) o-Xylene	11.956	106	17085	4.920	ug/l	97
70) Styrene	11.969	104	26787	4.637	ug/l	99
71) Bromoform	12.133	173	5478	4.916	ug/l #	99
73) Isopropylbenzene	12.255	105	44434	4.980	ug/l	99
74) N-amyl acetate	12.072	43	9713	4.283	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.505	83	8309	5.276	ug/l	99
76) 1,2,3-Trichloropropane	12.554	75	6139m	5.136	ug/l	
77) Bromobenzene	12.536	156	10911	5.257	ug/l	99
78) n-propylbenzene	12.597	91	53794	4.968	ug/l	100
79) 2-Chlorotoluene	12.682	91	32529	5.235	ug/l	98
80) 1,3,5-Trimethylbenzene	12.737	105	36696	5.014	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.304	75	2493	4.664	ug/l	97
82) 4-Chlorotoluene	12.780	91	34079	5.290	ug/l	99
83) tert-Butylbenzene	12.999	119	32078	4.852	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	35772	4.915	ug/l	100
85) sec-Butylbenzene	13.176	105	48977	5.072	ug/l	100
86) p-Isopropyltoluene	13.292	119	39637	4.916	ug/l	98
87) 1,3-Dichlorobenzene	13.292	146	21510	5.239	ug/l	99
88) 1,4-Dichlorobenzene	13.365	146	21663	5.341	ug/l	95
89) n-Butylbenzene	13.621	91	36537	4.815	ug/l	100
90) Hexachloroethane	13.883	117	9013	5.351	ug/l	97
91) 1,2-Dichlorobenzene	13.664	146	18984	5.278	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.273	75	1227	4.925	ug/l	97
93) 1,2,4-Trichlorobenzene	14.925	180	10759	4.901	ug/l	98
94) Hexachlorobutadiene	15.029	225	7510	5.434	ug/l	95
95) Naphthalene	15.145	128	14829	4.078	ug/l	97
96) 1,2,3-Trichlorobenzene	15.334	180	8804	4.746	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021309.D
Acq On : 25 Feb 2025 12:40
Operator : SY/MD
Sample : VSTDICC005
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:42:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 01:41:21 2025
Response via : Initial Calibration

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

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

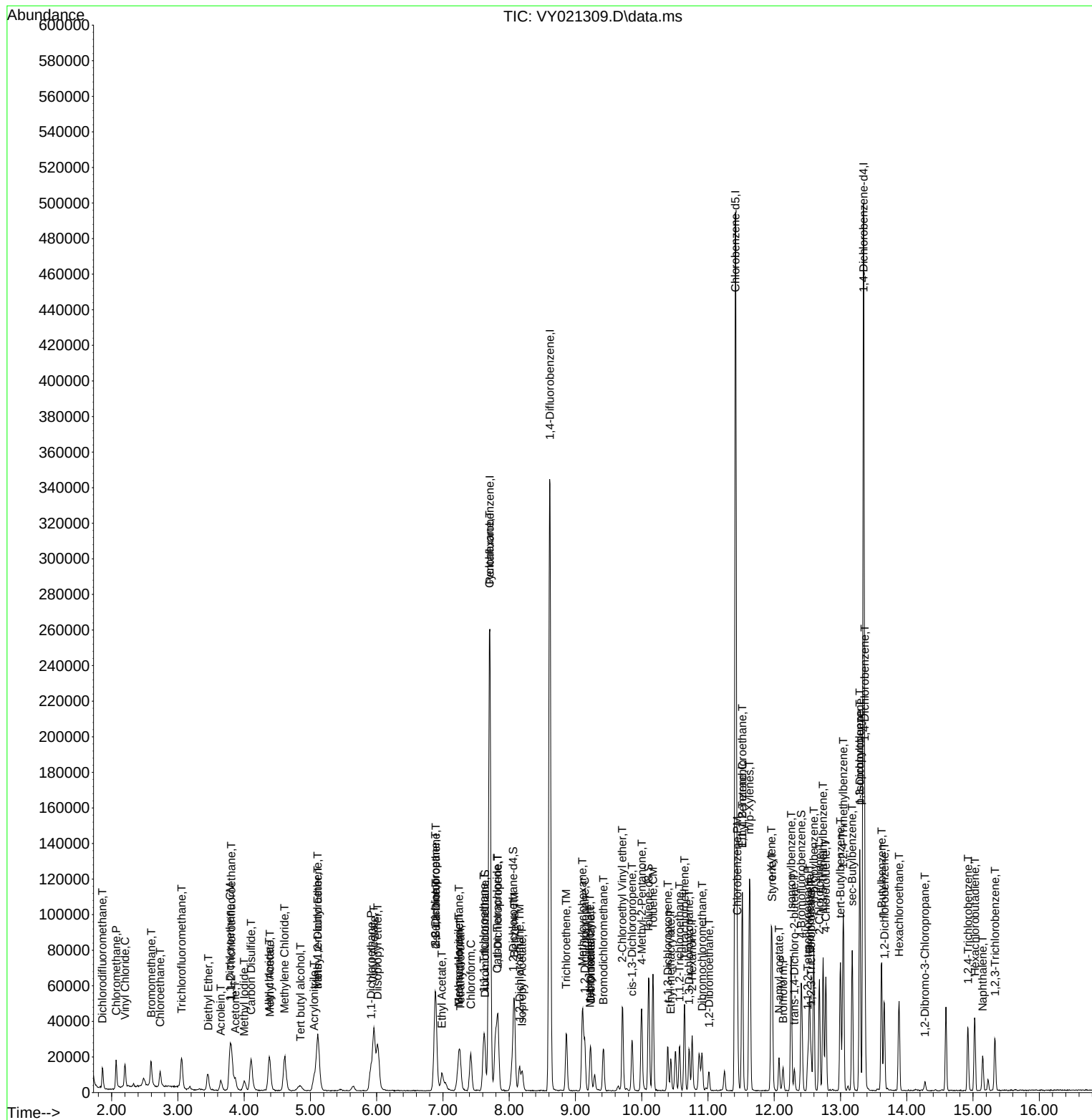
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021309.D
Acq On : 25 Feb 2025 12:40
Operator : SY/MD
Sample : VSTDIC005
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:42:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 01:41:21 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021310.D
 Acq On : 25 Feb 2025 13:03
 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 :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:43:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	185658	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	289178	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	250629	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	125138	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	18938	8.992	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	17.980%#		
35) Dibromofluoromethane	7.634	113	17267	9.108	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	18.220%#		
50) Toluene-d8	10.103	98	66979	9.141	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	18.280%#		
62) 4-Bromofluorobenzene	12.408	95	22364	9.069	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	18.140%#		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.861	85	17969	10.208	ug/l	99
3) Chloromethane	2.068	50	23321	10.259	ug/l	96
4) Vinyl Chloride	2.202	62	21933	9.830	ug/l	99
5) Bromomethane	2.592	94	15371	10.366	ug/l	92
6) Chloroethane	2.732	64	13561	9.801	ug/l	96
7) Trichlorofluoromethane	3.056	101	33977	10.083	ug/l	96
8) Diethyl Ether	3.452	74	9792	9.682	ug/l	95
9) 1,1,2-Trichlorotrifluo...	3.818	101	19660	10.077	ug/l	99
10) Methyl Iodide	4.001	142	17573	8.562	ug/l	99
11) Tert butyl alcohol	4.854	59	8754	54.037	ug/l #	81
12) 1,1-Dichloroethene	3.793	96	18141	9.711	ug/l	87
13) Acrolein	3.647	56	10715	86.313	ug/l	97
14) Allyl chloride	4.385	41	31462	9.499	ug/l	98
15) Acrylonitrile	5.061	53	21273	47.572	ug/l	98
16) Acetone	3.866	43	19023	47.086	ug/l	92
17) Carbon Disulfide	4.104	76	61336	9.888	ug/l	100
18) Methyl Acetate	4.379	43	9259	9.378	ug/l	99
19) Methyl tert-butyl Ether	5.116	73	47090	9.541	ug/l	98
20) Methylene Chloride	4.610	84	22192	10.158	ug/l	95
21) trans-1,2-Dichloroethene	5.110	96	19921	9.687	ug/l	94
22) Diisopropyl ether	6.012	45	66598	9.717	ug/l	93
23) Vinyl Acetate	5.957	43	193291	47.195	ug/l	99
24) 1,1-Dichloroethane	5.909	63	38311	9.918	ug/l	98
25) 2-Butanone	6.896	43	28711	47.087	ug/l	99
26) 2,2-Dichloropropane	6.884	77	34859	9.945	ug/l	99
27) cis-1,2-Dichloroethene	6.890	96	22663	9.651	ug/l	99
28) Bromochloromethane	7.244	49	16417	9.605	ug/l	100
29) Tetrahydrofuran	7.262	42	18625	46.731	ug/l	99
30) Chloroform	7.415	83	38838	9.922	ug/l	97
31) Cyclohexane	7.701	56	38072	10.253	ug/l #	88
32) 1,1,1-Trichloroethane	7.616	97	35489	9.961	ug/l	99
36) 1,1-Dichloropropene	7.829	75	28171	9.892	ug/l	99
37) Ethyl Acetate	6.982	43	14219	10.038	ug/l	98
38) Carbon Tetrachloride	7.811	117	32494	10.149	ug/l	96
39) Methylcyclohexane	9.103	83	35431	9.837	ug/l	95
40) Benzene	8.079	78	83594	9.930	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021310.D
 Acq On : 25 Feb 2025 13:03
 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 :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:43:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.226	41	6845	8.642	ug/l	92
42) 1,2-Dichloroethane	8.158	62	24091	10.087	ug/l	99
43) Isopropyl Acetate	8.195	43	25874	9.436	ug/l	99
44) Trichloroethene	8.859	130	20823	9.880	ug/l	97
45) 1,2-Dichloropropane	9.140	63	20214	9.978	ug/l	98
46) Dibromomethane	9.231	93	10902	9.845	ug/l	99
47) Bromodichloromethane	9.420	83	29114	9.860	ug/l	97
48) Methyl methacrylate	9.219	41	11652	9.088	ug/l	96
49) 1,4-Dioxane	9.225	88	2309	187.520	ug/l	96
51) 4-Methyl-2-Pentanone	9.993	43	65698	46.808	ug/l	99
52) Toluene	10.170	92	51371	9.823	ug/l	100
53) t-1,3-Dichloropropene	10.390	75	25218	9.322	ug/l	97
54) cis-1,3-Dichloropropene	9.853	75	30428	9.528	ug/l	97
55) 1,1,2-Trichloroethane	10.573	97	14509	10.057	ug/l	96
56) Ethyl methacrylate	10.438	69	17817	8.938	ug/l	96
57) 1,3-Dichloropropane	10.713	76	24769	9.784	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.713	63	42304	44.215	ug/l	100
59) 2-Hexanone	10.755	43	42123	45.697	ug/l	99
60) Dibromochloromethane	10.908	129	18793	9.565	ug/l	96
61) 1,2-Dibromoethane	11.011	107	13351	9.775	ug/l	98
64) Tetrachloroethene	10.646	164	19065	10.064	ug/l	97
65) Chlorobenzene	11.438	112	55689	9.899	ug/l	97
66) 1,1,1,2-Tetrachloroethane	11.511	131	20089	10.198	ug/l	98
67) Ethyl Benzene	11.517	91	97299	9.764	ug/l	99
68) m/p-Xylenes	11.627	106	73991	19.740	ug/l	99
69) o-Xylene	11.950	106	33822	9.632	ug/l	99
70) Styrene	11.969	104	56550	9.679	ug/l	99
71) Bromoform	12.133	173	11067	9.820	ug/l #	100
73) Isopropylbenzene	12.255	105	90221	9.590	ug/l	100
74) N-amyl acetate	12.066	43	21370	8.937	ug/l	97
75) 1,1,2,2-Tetrachloroethane	12.505	83	16246	9.785	ug/l	98
76) 1,2,3-Trichloropropane	12.554	75	13699m	10.871	ug/l	
77) Bromobenzene	12.529	156	21097	9.641	ug/l	99
78) n-propylbenzene	12.597	91	110190	9.652	ug/l	99
79) 2-Chlorotoluene	12.682	91	64018	9.771	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	74498	9.655	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.304	75	5238	9.295	ug/l	96
82) 4-Chlorotoluene	12.773	91	66701	9.821	ug/l	100
83) tert-Butylbenzene	12.999	119	68905	9.886	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	74032	9.647	ug/l	99
85) sec-Butylbenzene	13.176	105	100189	9.841	ug/l	99
86) p-Isopropyltoluene	13.292	119	81769	9.619	ug/l	98
87) 1,3-Dichlorobenzene	13.285	146	43267	9.996	ug/l	99
88) 1,4-Dichlorobenzene	13.365	146	42788	10.006	ug/l	98
89) n-Butylbenzene	13.615	91	76325	9.541	ug/l	99
90) Hexachloroethane	13.877	117	17261	9.721	ug/l	97
91) 1,2-Dichlorobenzene	13.657	146	37522	9.894	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.273	75	2424	9.229	ug/l	98
93) 1,2,4-Trichlorobenzene	14.919	180	21234	9.174	ug/l	97
94) Hexachlorobutadiene	15.023	225	14346	9.845	ug/l	99
95) Naphthalene	15.145	128	32094	8.371	ug/l	98
96) 1,2,3-Trichlorobenzene	15.328	180	17983	9.195	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021310.D
Acq On : 25 Feb 2025 13:03
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 :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:43:45 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 01:41:21 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\VY022525\
 Data File : VY021310.D
 Acq On : 25 Feb 2025 13:03
 Operator : SY/MD
 Sample : VSTDIC010
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

MSVOA_Y

Client Sample Id :

VSTDIC010

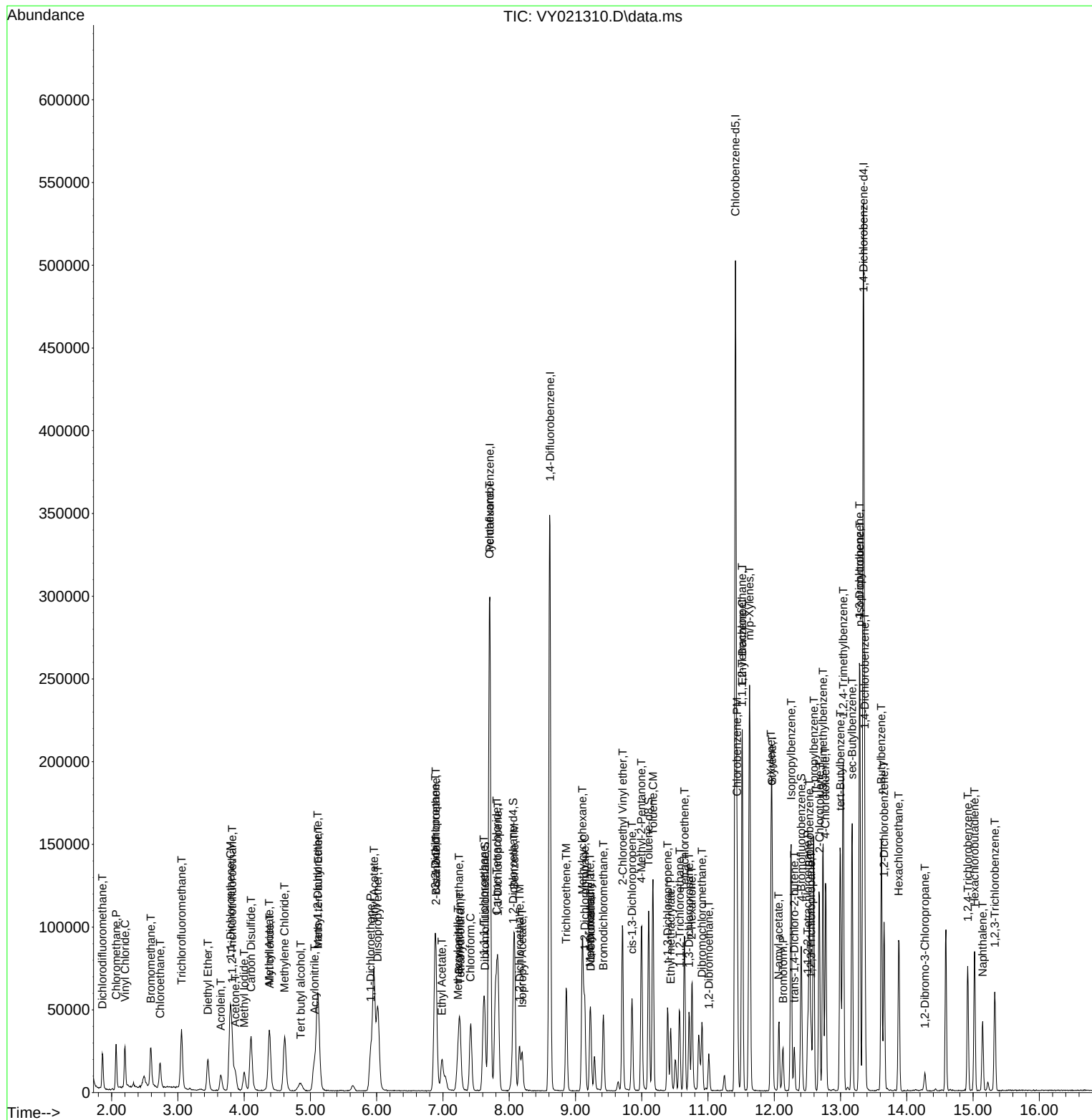
Manual Integrations

APPROVED

Reviewed By :Romaben Patel 02/26/2025

Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:43:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021311.D
 Acq On : 25 Feb 2025 13:26
 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 :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:44:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	188363	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.610	114	293434	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	258896	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	130546	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	41320	19.337	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	38.680%#
35) Dibromofluoromethane	7.634	113	37265	19.371	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	38.740%#
50) Toluene-d8	10.103	98	144409	19.423	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	38.840%#
62) 4-Bromofluorobenzene	12.408	95	47417	18.950	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	37.900%

Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.861	85	32511	18.204	ug/l	96
3) Chloromethane	2.068	50	42633	18.484	ug/l	97
4) Vinyl Chloride	2.202	62	41719	18.429	ug/l	100
5) Bromomethane	2.586	94	27198	18.079	ug/l	98
6) Chloroethane	2.726	64	26161	18.635	ug/l	99
7) Trichlorofluoromethane	3.056	101	63170	18.477	ug/l	95
8) Diethyl Ether	3.452	74	19564	19.066	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.812	101	37017	18.701	ug/l	99
10) Methyl Iodide	4.001	142	36945	17.741	ug/l	99
11) Tert butyl alcohol	4.860	59	15935	96.952	ug/l	96
12) 1,1-Dichloroethene	3.787	96	34827	18.376	ug/l	98
13) Acrolein	3.647	56	22079	175.300	ug/l	100
14) Allyl chloride	4.379	41	61887	18.417	ug/l	98
15) Acrylonitrile	5.061	53	43763	96.460	ug/l	99
16) Acetone	3.866	43	35506	86.623	ug/l	96
17) Carbon Disulfide	4.104	76	116030	18.437	ug/l	99
18) Methyl Acetate	4.379	43	19534	19.500	ug/l	99
19) Methyl tert-butyl Ether	5.116	73	95488	19.069	ug/l	97
20) Methylene Chloride	4.616	84	40630	18.331	ug/l	98
21) trans-1,2-Dichloroethene	5.110	96	38218	18.317	ug/l	98
22) Diisopropyl ether	6.019	45	132039	18.989	ug/l	97
23) Vinyl Acetate	5.958	43	393629	94.730	ug/l	99
24) 1,1-Dichloroethane	5.909	63	72428	18.480	ug/l	99
25) 2-Butanone	6.890	43	58941	95.278	ug/l	98
26) 2,2-Dichloropropane	6.884	77	63686	17.908	ug/l	100
27) cis-1,2-Dichloroethene	6.884	96	44297	18.592	ug/l	98
28) Bromochloromethane	7.244	49	32987	19.022	ug/l	99
29) Tetrahydrofuran	7.256	42	39775	98.365	ug/l	98
30) Chloroform	7.421	83	73639	18.543	ug/l	96
31) Cyclohexane	7.701	56	68531	18.191	ug/l	95
32) 1,1,1-Trichloroethane	7.616	97	67011	18.538	ug/l	98
36) 1,1-Dichloropropene	7.835	75	53995	18.685	ug/l	100
37) Ethyl Acetate	6.982	43	27188	18.914	ug/l	98
38) Carbon Tetrachloride	7.817	117	59733	18.387	ug/l	98
39) Methylcyclohexane	9.103	83	68516	18.746	ug/l	98
40) Benzene	8.079	78	159536	18.676	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021311.D
 Acq On : 25 Feb 2025 13:26
 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 :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:44:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.220	41	14108	17.554	ug/l	92
42) 1,2-Dichloroethane	8.152	62	46152	19.043	ug/l	99
43) Isopropyl Acetate	8.195	43	54484	19.583	ug/l	98
44) Trichloroethene	8.866	130	40005	18.706	ug/l	93
45) 1,2-Dichloropropane	9.140	63	38611	18.782	ug/l	100
46) Dibromomethane	9.231	93	21421	19.063	ug/l	99
47) Bromodichloromethane	9.420	83	56033	18.701	ug/l	98
48) Methyl methacrylate	9.219	41	24461	18.801	ug/l	97
49) 1,4-Dioxane	9.225	88	5308	424.825	ug/l	90
51) 4-Methyl-2-Pentanone	10.000	43	140187	98.430	ug/l	100
52) Toluene	10.170	92	100050	18.854	ug/l	100
53) t-1,3-Dichloropropene	10.390	75	50957	18.563	ug/l	100
54) cis-1,3-Dichloropropene	9.853	75	61967	19.122	ug/l	99
55) 1,1,2-Trichloroethane	10.567	97	27942	19.088	ug/l	99
56) Ethyl methacrylate	10.438	69	36997	18.291	ug/l	95
57) 1,3-Dichloropropane	10.713	76	49499	19.270	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.707	63	93377	96.179	ug/l	100
59) 2-Hexanone	10.762	43	90882	97.163	ug/l	100
60) Dibromochloromethane	10.908	129	37808	18.964	ug/l	99
61) 1,2-Dibromoethane	11.012	107	26519	19.135	ug/l	99
64) Tetrachloroethene	10.646	164	36387	18.595	ug/l	97
65) Chlorobenzene	11.438	112	107621	18.519	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.511	131	37487	18.422	ug/l	99
67) Ethyl Benzene	11.518	91	189052	18.366	ug/l	99
68) m/p-Xylenes	11.627	106	144073	37.210	ug/l	99
69) o-Xylene	11.950	106	67060	18.488	ug/l	100
70) Styrene	11.969	104	113033	18.729	ug/l	99
71) Bromoform	12.133	173	21886	18.800	ug/l #	99
73) Isopropylbenzene	12.255	105	179489	18.288	ug/l	99
74) N-amyl acetate	12.072	43	47224	18.930	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.505	83	32419	18.717	ug/l	100
76) 1,2,3-Trichloropropane	12.554	75	23402m	17.801	ug/l	
77) Bromobenzene	12.530	156	42078	18.433	ug/l	99
78) n-propylbenzene	12.597	91	220158	18.486	ug/l	100
79) 2-Chlorotoluene	12.676	91	125969	18.430	ug/l	99
80) 1,3,5-Trimethylbenzene	12.737	105	150004	18.635	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.304	75	10866	18.483	ug/l	99
82) 4-Chlorotoluene	12.780	91	130335	18.396	ug/l	100
83) tert-Butylbenzene	12.999	119	135829	18.681	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	149358	18.657	ug/l	99
85) sec-Butylbenzene	13.176	105	196335	18.486	ug/l	100
86) p-Isopropyltoluene	13.292	119	165127	18.620	ug/l	99
87) 1,3-Dichlorobenzene	13.286	146	83463	18.483	ug/l	100
88) 1,4-Dichlorobenzene	13.365	146	83179	18.646	ug/l	99
89) n-Butylbenzene	13.615	91	153032	18.337	ug/l	100
90) Hexachloroethane	13.877	117	33341	17.998	ug/l	99
91) 1,2-Dichlorobenzene	13.657	146	73513	18.581	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.273	75	5181	18.908	ug/l	97
93) 1,2,4-Trichlorobenzene	14.919	180	42908	17.770	ug/l	99
94) Hexachlorobutadiene	15.023	225	27015	17.771	ug/l	99
95) Naphthalene	15.145	128	71044	17.763	ug/l	99
96) 1,2,3-Trichlorobenzene	15.328	180	36460	17.871	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021311.D
Acq On : 25 Feb 2025 13:26
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 :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:44:32 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 01:41:21 2025
Response via : Initial Calibration

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

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

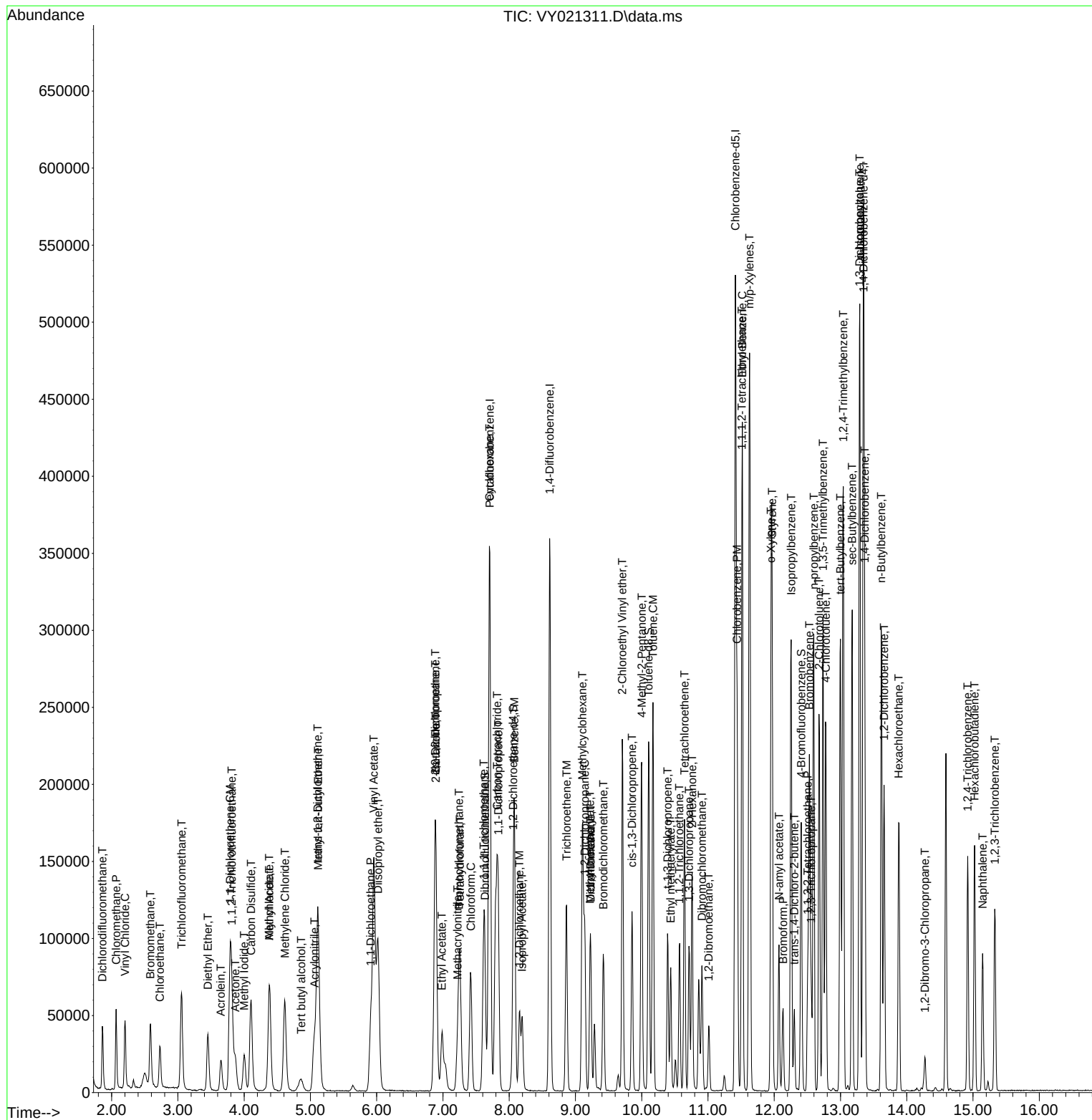
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021311.D
 Acq On : 25 Feb 2025 13:26
 Operator : SY/MD
 Sample : VSTDICC020
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC020

Manual Integrations APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:44:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021312.D
 Acq On : 25 Feb 2025 14:48
 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 :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:45:21 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	175365	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	272563	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	239724	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	121718	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.061	65	96694	48.606	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	97.220%
35) Dibromofluoromethane	7.634	113	88513	49.533	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	99.060%
50) Toluene-d8	10.103	98	340929	49.367	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	98.740%
62) 4-Bromofluorobenzene	12.408	95	115401	49.652	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	99.300%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.867	85	86387	51.957	ug/l	100
3) Chloromethane	2.068	50	105626	49.191	ug/l	100
4) Vinyl Chloride	2.202	62	109961	52.173	ug/l	100
5) Bromomethane	2.592	94	67780	48.395	ug/l	100
6) Chloroethane	2.732	64	68323	52.276	ug/l	100
7) Trichlorofluoromethane	3.056	101	164215	51.592	ug/l	100
8) Diethyl Ether	3.452	74	50185	52.532	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.818	101	94197	51.116	ug/l	100
10) Methyl Iodide	4.007	142	111673	57.600	ug/l	100
11) Tert butyl alcohol	4.854	59	35300	230.691	ug/l	100
12) 1,1-Dichloroethene	3.787	96	90388	51.226	ug/l	100
13) Acrolein	3.647	56	5860	49.975	ug/l	100
14) Allyl chloride	4.385	41	162419	51.918	ug/l	100
15) Acrylonitrile	5.055	53	111677	264.397	ug/l	100
16) Acetone	3.866	43	111923	293.294	ug/l	100
17) Carbon Disulfide	4.104	76	304042	51.892	ug/l	100
18) Methyl Acetate	4.385	43	48368	51.864	ug/l	100
19) Methyl tert-butyl Ether	5.116	73	247280	53.043	ug/l	100
20) Methylene Chloride	4.610	84	102592	49.716	ug/l	100
21) trans-1,2-Dichloroethene	5.110	96	100568	51.774	ug/l	100
22) Diisopropyl ether	6.012	45	343920	53.126	ug/l	100
23) Vinyl Acetate	5.957	43	1041767	269.294	ug/l	100
24) 1,1-Dichloroethane	5.915	63	189943	52.057	ug/l	100
25) 2-Butanone	6.890	43	160248	278.240	ug/l	100
26) 2,2-Dichloropropane	6.884	77	170469	51.489	ug/l	100
27) cis-1,2-Dichloroethene	6.884	96	116627	52.579	ug/l	100
28) Bromochloromethane	7.244	49	79678	49.352	ug/l	100
29) Tetrahydrofuran	7.256	42	100417	266.741	ug/l	100
30) Chloroform	7.421	83	191980	51.925	ug/l	100
31) Cyclohexane	7.701	56	173460	49.456	ug/l	100
32) 1,1,1-Trichloroethane	7.616	97	172880	51.372	ug/l	100
36) 1,1-Dichloropropene	7.835	75	140574	52.371	ug/l	100
37) Ethyl Acetate	6.982	43	70184	52.565	ug/l	100
38) Carbon Tetrachloride	7.817	117	158319	52.465	ug/l	100
39) Methylcyclohexane	9.109	83	180496	53.165	ug/l	100
40) Benzene	8.079	78	417798	52.655	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021312.D
 Acq On : 25 Feb 2025 14:48
 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 :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:45:21 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.219	41	39965	53.535	ug/l	100
42) 1,2-Dichloroethane	8.158	62	118176	52.494	ug/l	100
43) Isopropyl Acetate	8.195	43	139829	54.106	ug/l	100
44) Trichloroethene	8.865	130	104074	52.389	ug/l	100
45) 1,2-Dichloropropane	9.140	63	101166	52.980	ug/l	100
46) Dibromomethane	9.231	93	55365	53.043	ug/l	100
47) Bromodichloromethane	9.420	83	147382	52.957	ug/l	100
48) Methyl methacrylate	9.219	41	67406	55.775	ug/l	100
49) 1,4-Dioxane	9.231	88	12193	1050.591	ug/l	100
51) 4-Methyl-2-Pentanone	9.999	43	364446	275.485	ug/l	100
52) Toluene	10.170	92	263062	53.367	ug/l	100
53) t-1,3-Dichloropropene	10.390	75	140399	55.062	ug/l	100
54) cis-1,3-Dichloropropene	9.853	75	161021	53.492	ug/l	100
55) 1,1,2-Trichloroethane	10.572	97	72720	53.481	ug/l	100
56) Ethyl methacrylate	10.438	69	106914	56.904	ug/l	100
57) 1,3-Dichloropropane	10.719	76	127795	53.559	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.713	63	260718	289.104	ug/l	100
59) 2-Hexanone	10.761	43	249578	287.258	ug/l	100
60) Dibromochloromethane	10.908	129	100250	54.134	ug/l	100
61) 1,2-Dibromoethane	11.018	107	69236	53.783	ug/l	100
64) Tetrachloroethene	10.646	164	93317	51.501	ug/l	100
65) Chlorobenzene	11.444	112	281918	52.390	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.517	131	99131	52.611	ug/l	100
67) Ethyl Benzene	11.517	91	510639	53.573	ug/l	100
68) m/p-Xylenes	11.627	106	384346	107.204	ug/l	100
69) o-Xylene	11.956	106	181728	54.108	ug/l	100
70) Styrene	11.969	104	306007	54.760	ug/l	100
71) Bromoform	12.133	173	58860	54.605	ug/l	100
73) Isopropylbenzene	12.255	105	483937	52.885	ug/l	100
74) N-amyl acetate	12.072	43	129020	55.471	ug/l	100
75) 1,1,2,2-Tetrachloroethane	12.505	83	84893	52.566	ug/l	100
76) 1,2,3-Trichloropropane	12.560	75	63683m	51.954	ug/l	
77) Bromobenzene	12.529	156	110538	51.935	ug/l	100
78) n-propylbenzene	12.596	91	587915	52.946	ug/l	100
79) 2-Chlorotoluene	12.682	91	330472	51.857	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	395609	52.712	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	29649	54.090	ug/l	100
82) 4-Chlorotoluene	12.779	91	342611	51.864	ug/l	100
83) tert-Butylbenzene	12.999	119	352055	51.930	ug/l	100
84) 1,2,4-Trimethylbenzene	13.042	105	395315	52.962	ug/l	100
85) sec-Butylbenzene	13.176	105	518094	52.319	ug/l	100
86) p-Isopropyltoluene	13.291	119	437283	52.884	ug/l	100
87) 1,3-Dichlorobenzene	13.291	146	218136	51.811	ug/l	100
88) 1,4-Dichlorobenzene	13.371	146	213090	51.233	ug/l	100
89) n-Butylbenzene	13.621	91	416377	53.510	ug/l	100
90) Hexachloroethane	13.883	117	87765	50.814	ug/l	100
91) 1,2-Dichlorobenzene	13.663	146	191758	51.985	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	13782	53.947	ug/l	100
93) 1,2,4-Trichlorobenzene	14.925	180	117882	52.360	ug/l	100
94) Hexachlorobutadiene	15.023	225	71915	50.738	ug/l	100
95) Naphthalene	15.145	128	209478	56.174	ug/l	100
96) 1,2,3-Trichlorobenzene	15.334	180	100312	52.735	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021312.D
Acq On : 25 Feb 2025 14:48
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 :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:45:21 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 01:41:21 2025
Response via : Initial Calibration

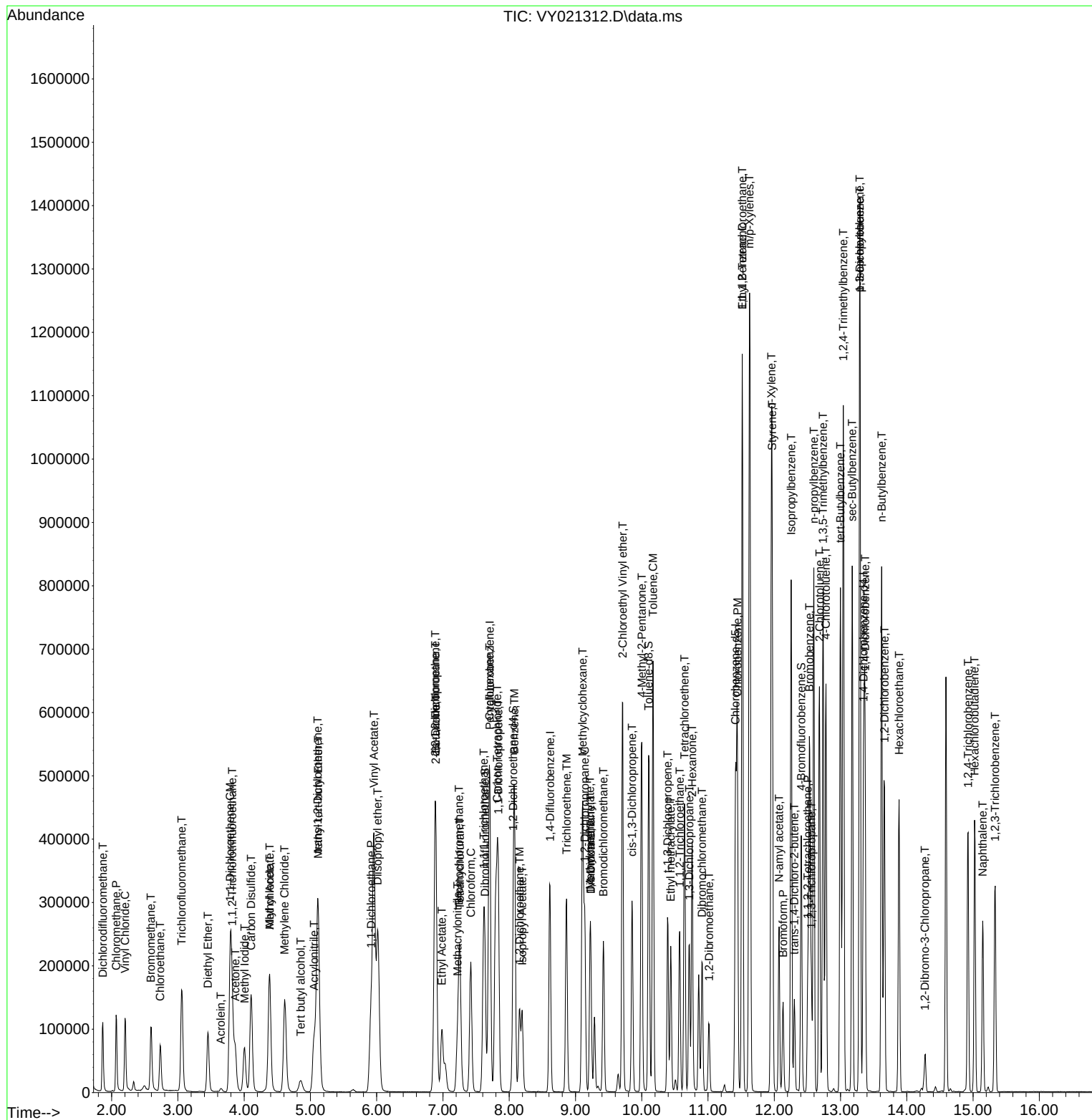
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021314.D
 Acq On : 25 Feb 2025 15:57
 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 :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:46:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	180458	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.609	114	283003	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	248493	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	121558	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	306215	149.582	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 299.160%#			
35) Dibromofluoromethane	7.634	113	283537	152.818	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 305.640%#			
50) Toluene-d8	10.103	98	1094820	152.682	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 305.360%#			
62) 4-Bromofluorobenzene	12.401	95	369071	152.937	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 305.880%#			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.861	85	259643	151.753	ug/l	99
3) Chloromethane	2.068	50	323414	146.365	ug/l	99
4) Vinyl Chloride	2.202	62	328290	151.368	ug/l	97
5) Bromomethane	2.580	94	200754	139.293	ug/l	100
6) Chloroethane	2.726	64	197463	146.820	ug/l	97
7) Trichlorofluoromethane	3.056	101	492238	150.283	ug/l	98
8) Diethyl Ether	3.452	74	154649	157.312	ug/l	98
9) 1,1,2-Trichlorotrifluo...	3.811	101	293114	154.570	ug/l	99
10) Methyl Iodide	4.000	142	338246	169.542	ug/l	99
11) Tert butyl alcohol	4.860	59	106628	677.165	ug/l	99
12) 1,1-Dichloroethene	3.787	96	280431	154.445	ug/l	98
13) Acrolein	3.647	56	17213	142.652	ug/l	96
14) Allyl chloride	4.378	41	507854	157.755	ug/l	98
15) Acrylonitrile	5.055	53	344988	793.713	ug/l	99
16) Acetone	3.860	43	280172	713.470	ug/l	97
17) Carbon Disulfide	4.104	76	908476	150.676	ug/l	99
18) Methyl Acetate	4.378	43	149226	155.496	ug/l	99
19) Methyl tert-butyl Ether	5.110	73	763596	159.172	ug/l	100
20) Methylene Chloride	4.610	84	296032	139.409	ug/l	99
21) trans-1,2-Dichloroethene	5.110	96	308627	154.401	ug/l	98
22) Diisopropyl ether	6.018	45	1028788	154.433	ug/l	96
23) Vinyl Acetate	5.957	43	3191401	801.685	ug/l	99
24) 1,1-Dichloroethane	5.915	63	572832	152.564	ug/l	98
25) 2-Butanone	6.890	43	462541	780.449	ug/l	97
26) 2,2-Dichloropropane	6.884	77	515178	151.214	ug/l	100
27) cis-1,2-Dichloroethene	6.890	96	354979	155.519	ug/l	99
28) Bromochloromethane	7.244	49	251245	151.227	ug/l	99
29) Tetrahydrofuran	7.256	42	309130	797.978	ug/l	99
30) Chloroform	7.421	83	574920	151.112	ug/l	100
31) Cyclohexane	7.695	56	525636	145.637	ug/l	96
32) 1,1,1-Trichloroethane	7.616	97	529792	152.986	ug/l	99
36) 1,1-Dichloropropene	7.835	75	429157	153.985	ug/l	100
37) Ethyl Acetate	6.982	43	216920	156.470	ug/l	100
38) Carbon Tetrachloride	7.817	117	481774	153.764	ug/l	99
39) Methylcyclohexane	9.103	83	563132	159.752	ug/l	97
40) Benzene	8.079	78	1249573	151.673	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021314.D
 Acq On : 25 Feb 2025 15:57
 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 :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:46:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.219	41	123663	159.542	ug/l	95
42) 1,2-Dichloroethane	8.152	62	355374	152.036	ug/l	99
43) Isopropyl Acetate	8.195	43	433742	161.641	ug/l	98
44) Trichloroethene	8.865	130	318590	154.457	ug/l	99
45) 1,2-Dichloropropane	9.140	63	302967	152.809	ug/l	99
46) Dibromomethane	9.231	93	168654	155.620	ug/l	99
47) Bromodichloromethane	9.420	83	448398	155.172	ug/l	99
48) Methyl methacrylate	9.219	41	213222	169.923	ug/l	100
49) 1,4-Dioxane	9.225	88	38142	3165.209	ug/l	93
51) 4-Methyl-2-Pentanone	9.993	43	1121500	816.471	ug/l	100
52) Toluene	10.170	92	794485	155.232	ug/l	100
53) t-1,3-Dichloropropene	10.390	75	432560	163.384	ug/l	98
54) cis-1,3-Dichloropropene	9.853	75	493601	157.928	ug/l	100
55) 1,1,2-Trichloroethane	10.572	97	215312	152.506	ug/l	98
56) Ethyl methacrylate	10.438	69	337816	173.168	ug/l	99
57) 1,3-Dichloropropane	10.713	76	385803	155.726	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.707	63	761125	812.859	ug/l	100
59) 2-Hexanone	10.755	43	754575	836.458	ug/l	98
60) Dibromochloromethane	10.908	129	299188	155.598	ug/l	99
61) 1,2-Dibromoethane	11.011	107	208046	155.651	ug/l	99
64) Tetrachloroethene	10.646	164	288026	153.351	ug/l	98
65) Chlorobenzene	11.438	112	863676	154.837	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.511	131	301244	154.234	ug/l	100
67) Ethyl Benzene	11.517	91	1576743	159.586	ug/l	100
68) m/p-Xylenes	11.627	106	1167839	314.246	ug/l	100
69) o-Xylene	11.950	106	550972	158.258	ug/l	99
70) Styrene	11.969	104	936967	161.754	ug/l	100
71) Bromoform	12.133	173	175918	157.441	ug/l #	99
73) Isopropylbenzene	12.255	105	1461905	159.969	ug/l	99
74) N-amyl acetate	12.066	43	403238	173.596	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.505	83	251216	155.759	ug/l	100
76) 1,2,3-Trichloropropane	12.554	75	179622m	146.733	ug/l	
77) Bromobenzene	12.529	156	333772	157.025	ug/l	99
78) n-propylbenzene	12.597	91	1765636	159.217	ug/l	100
79) 2-Chlorotoluene	12.682	91	995452	156.411	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	1190462	158.830	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.304	75	92910	169.722	ug/l	98
82) 4-Chlorotoluene	12.779	91	1021811	154.883	ug/l	100
83) tert-Butylbenzene	12.999	119	1094125	161.602	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	1192062	159.915	ug/l	99
85) sec-Butylbenzene	13.176	105	1558540	157.594	ug/l	100
86) p-Isopropyltoluene	13.291	119	1327819	160.795	ug/l	100
87) 1,3-Dichlorobenzene	13.285	146	648204	154.161	ug/l	100
88) 1,4-Dichlorobenzene	13.365	146	635981	153.109	ug/l	100
89) n-Butylbenzene	13.615	91	1269399	163.350	ug/l	99
90) Hexachloroethane	13.877	117	275368	159.641	ug/l	100
91) 1,2-Dichlorobenzene	13.657	146	570360	154.826	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	42060	164.851	ug/l	99
93) 1,2,4-Trichlorobenzene	14.919	180	384163	170.860	ug/l	99
94) Hexachlorobutadiene	15.023	225	224602	158.670	ug/l	99
95) Naphthalene	15.145	128	694625	186.517	ug/l	100
96) 1,2,3-Trichlorobenzene	15.328	180	326876	172.067	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021314.D
Acq On : 25 Feb 2025 15:57
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 :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:46:12 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 01:41:21 2025
Response via : Initial Calibration

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

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

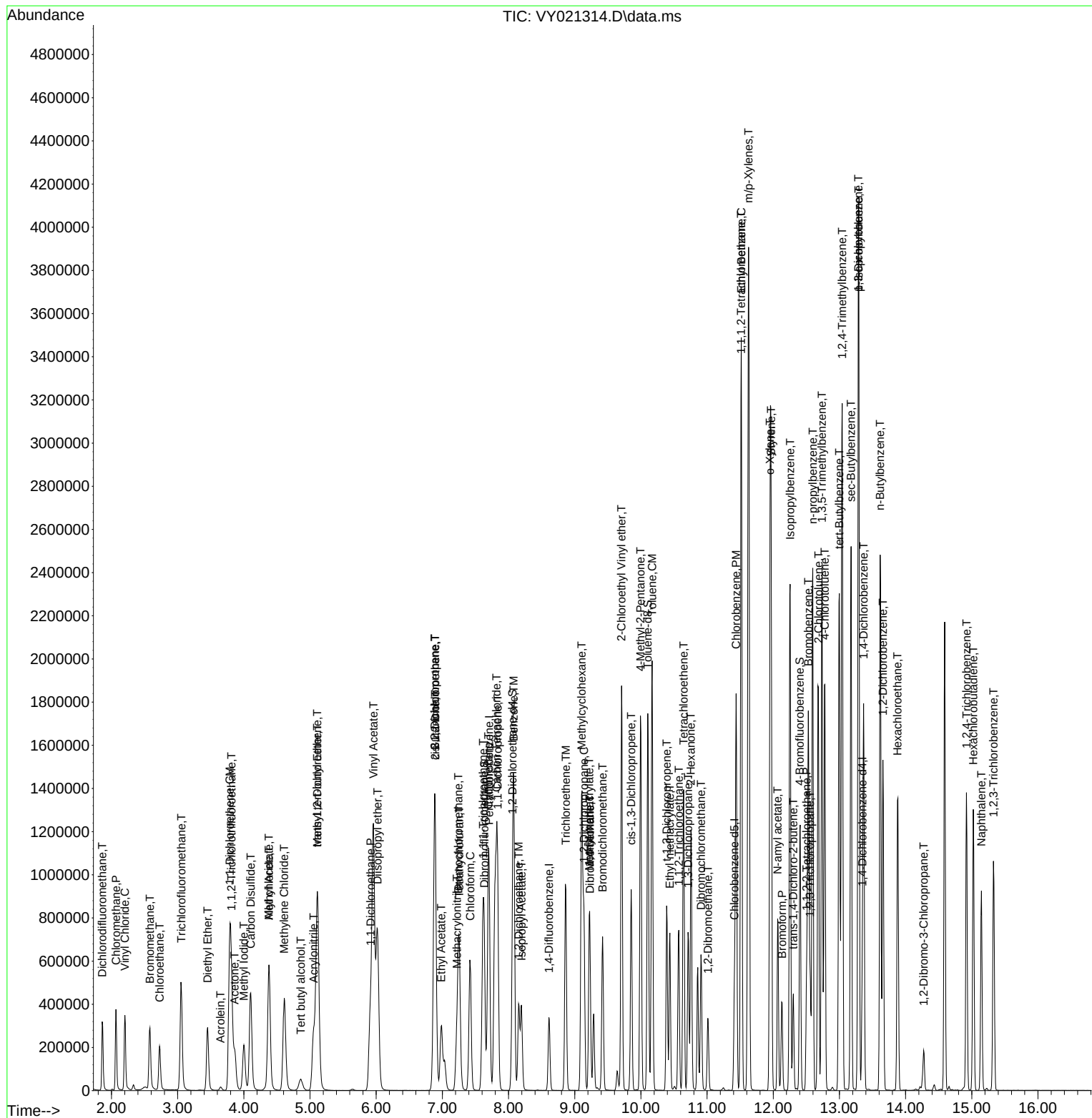
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021314.D
 Acq On : 25 Feb 2025 15:57
 Operator : SY/MD
 Sample : VSTDIC150
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDIC150

Quant Time: Feb 26 01:46:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021316.D
 Acq On : 25 Feb 2025 16:49
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:47:01 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	190677	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	300486	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	267150	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	130541	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.061	65	208535	96.407	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	192.820%#
35) Dibromofluoromethane	7.634	113	193803	98.377	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	196.760%#
50) Toluene-d8	10.103	98	752895	98.889	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	197.780%#
62) 4-Bromofluorobenzene	12.408	95	252327	98.477	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	196.960%#

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.861	85	170537	94.332	ug/l	97
3) Chloromethane	2.068	50	217555	93.180	ug/l	99
4) Vinyl Chloride	2.202	62	221196	96.523	ug/l	97
5) Bromomethane	2.592	94	136840	89.858	ug/l	100
6) Chloroethane	2.732	64	135372	95.259	ug/l	99
7) Trichlorofluoromethane	3.056	101	331928	95.909	ug/l	95
8) Diethyl Ether	3.452	74	100381	96.637	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.811	101	193544	96.593	ug/l	99
10) Methyl Iodide	4.000	142	228728	108.503	ug/l	100
11) Tert butyl alcohol	4.854	59	65742	395.134	ug/l	99
12) 1,1-Dichloroethene	3.787	96	186684	97.304	ug/l	99
13) Acrolein	3.653	56	11267	88.370	ug/l	99
14) Allyl chloride	4.378	41	339203	99.720	ug/l	99
15) Acrylonitrile	5.055	53	219275	477.449	ug/l	99
16) Acetone	3.866	43	196435	473.421	ug/l	99
17) Carbon Disulfide	4.104	76	617661	96.953	ug/l	100
18) Methyl Acetate	4.385	43	95405	94.085	ug/l	97
19) Methyl tert-butyl Ether	5.110	73	498467	98.337	ug/l	99
20) Methylene Chloride	4.616	84	201698	89.894	ug/l	98
21) trans-1,2-Dichloroethene	5.110	96	208498	98.718	ug/l	96
22) Diisopropyl ether	6.018	45	697290	99.061	ug/l	97
23) Vinyl Acetate	5.957	43	2103219	500.017	ug/l	99
24) 1,1-Dichloroethane	5.909	63	384030	96.798	ug/l	99
25) 2-Butanone	6.890	43	303077	483.977	ug/l	97
26) 2,2-Dichloropropane	6.884	77	350870	97.467	ug/l	100
27) cis-1,2-Dichloroethene	6.890	96	238916	99.061	ug/l	99
28) Bromochloromethane	7.244	49	167271	95.287	ug/l	99
29) Tetrahydrofuran	7.256	42	199056	486.299	ug/l	98
30) Chloroform	7.421	83	387767	96.458	ug/l	99
31) Cyclohexane	7.701	56	351876	92.269	ug/l	99
32) 1,1,1-Trichloroethane	7.616	97	353701	96.663	ug/l	98
36) 1,1-Dichloropropene	7.835	75	287472	97.146	ug/l	100
37) Ethyl Acetate	6.982	43	137233	93.230	ug/l	99
38) Carbon Tetrachloride	7.817	117	321576	96.663	ug/l	99
39) Methylcyclohexane	9.109	83	371172	99.169	ug/l	99
40) Benzene	8.079	78	847066	96.835	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021316.D
 Acq On : 25 Feb 2025 16:49
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:47:01 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.213	41	77542	94.219	ug/l	99
42) 1,2-Dichloroethane	8.152	62	236704	95.375	ug/l	100
43) Isopropyl Acetate	8.195	43	280321	98.388	ug/l	99
44) Trichloroethene	8.865	130	212562	97.057	ug/l	99
45) 1,2-Dichloropropane	9.140	63	201701	95.814	ug/l	98
46) Dibromomethane	9.231	93	110814	96.301	ug/l	99
47) Bromodichloromethane	9.420	83	297320	96.904	ug/l	99
48) Methyl methacrylate	9.219	41	135412	101.635	ug/l	99
49) 1,4-Dioxane	9.225	88	24355	1903.504	ug/l	94
51) 4-Methyl-2-Pentanone	9.999	43	716009	490.938	ug/l	100
52) Toluene	10.170	92	539016	99.189	ug/l	100
53) t-1,3-Dichloropropene	10.390	75	284731	101.290	ug/l	99
54) cis-1,3-Dichloropropene	9.853	75	328107	98.870	ug/l	99
55) 1,1,2-Trichloroethane	10.572	97	142372	94.975	ug/l	98
56) Ethyl methacrylate	10.438	69	216586	104.564	ug/l	98
57) 1,3-Dichloropropane	10.719	76	255903	97.283	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.707	63	530695	533.791	ug/l	100
59) 2-Hexanone	10.761	43	485734	507.115	ug/l	99
60) Dibromochloromethane	10.908	129	199225	97.582	ug/l	99
61) 1,2-Dibromoethane	11.011	107	136284	96.029	ug/l	98
64) Tetrachloroethene	10.646	164	189679	93.936	ug/l	99
65) Chlorobenzene	11.438	112	576109	96.070	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.517	131	203696	97.007	ug/l	99
67) Ethyl Benzene	11.517	91	1057129	99.522	ug/l	100
68) m/p-Xylenes	11.627	106	783034	195.986	ug/l	100
69) o-Xylene	11.956	106	370964	99.112	ug/l	100
70) Styrene	11.969	104	619437	99.469	ug/l	99
71) Bromoform	12.133	173	114495	95.313	ug/l #	99
73) Isopropylbenzene	12.255	105	987758	100.648	ug/l	99
74) N-amyl acetate	12.072	43	258576	103.658	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.505	83	162941	94.075	ug/l	99
76) 1,2,3-Trichloropropane	12.554	75	123844m	94.206	ug/l	
77) Bromobenzene	12.529	156	223081	97.728	ug/l	98
78) n-propylbenzene	12.596	91	1186751	99.651	ug/l	100
79) 2-Chlorotoluene	12.682	91	666071	97.455	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	794247	98.676	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	58806	100.031	ug/l	99
82) 4-Chlorotoluene	12.779	91	687385	97.022	ug/l	100
83) tert-Butylbenzene	12.999	119	720480	99.092	ug/l	100
84) 1,2,4-Trimethylbenzene	13.042	105	795840	99.415	ug/l	100
85) sec-Butylbenzene	13.176	105	1041022	98.021	ug/l	100
86) p-Isopropyltoluene	13.291	119	881757	99.431	ug/l	100
87) 1,3-Dichlorobenzene	13.291	146	435489	96.445	ug/l	100
88) 1,4-Dichlorobenzene	13.371	146	425301	95.343	ug/l	99
89) n-Butylbenzene	13.621	91	840236	100.683	ug/l	100
90) Hexachloroethane	13.883	117	181015	97.720	ug/l	100
91) 1,2-Dichlorobenzene	13.657	146	377453	95.410	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.273	75	26541	96.867	ug/l	99
93) 1,2,4-Trichlorobenzene	14.925	180	248146	102.770	ug/l	100
94) Hexachlorobutadiene	15.023	225	147103	96.770	ug/l	99
95) Naphthalene	15.145	128	436817	109.220	ug/l	100
96) 1,2,3-Trichlorobenzene	15.334	180	211313	103.581	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021316.D
Acq On : 25 Feb 2025 16:49
Operator : SY/MD
Sample : VSTDICC100
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 01:47:01 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 01:41:21 2025
Response via : Initial Calibration

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

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

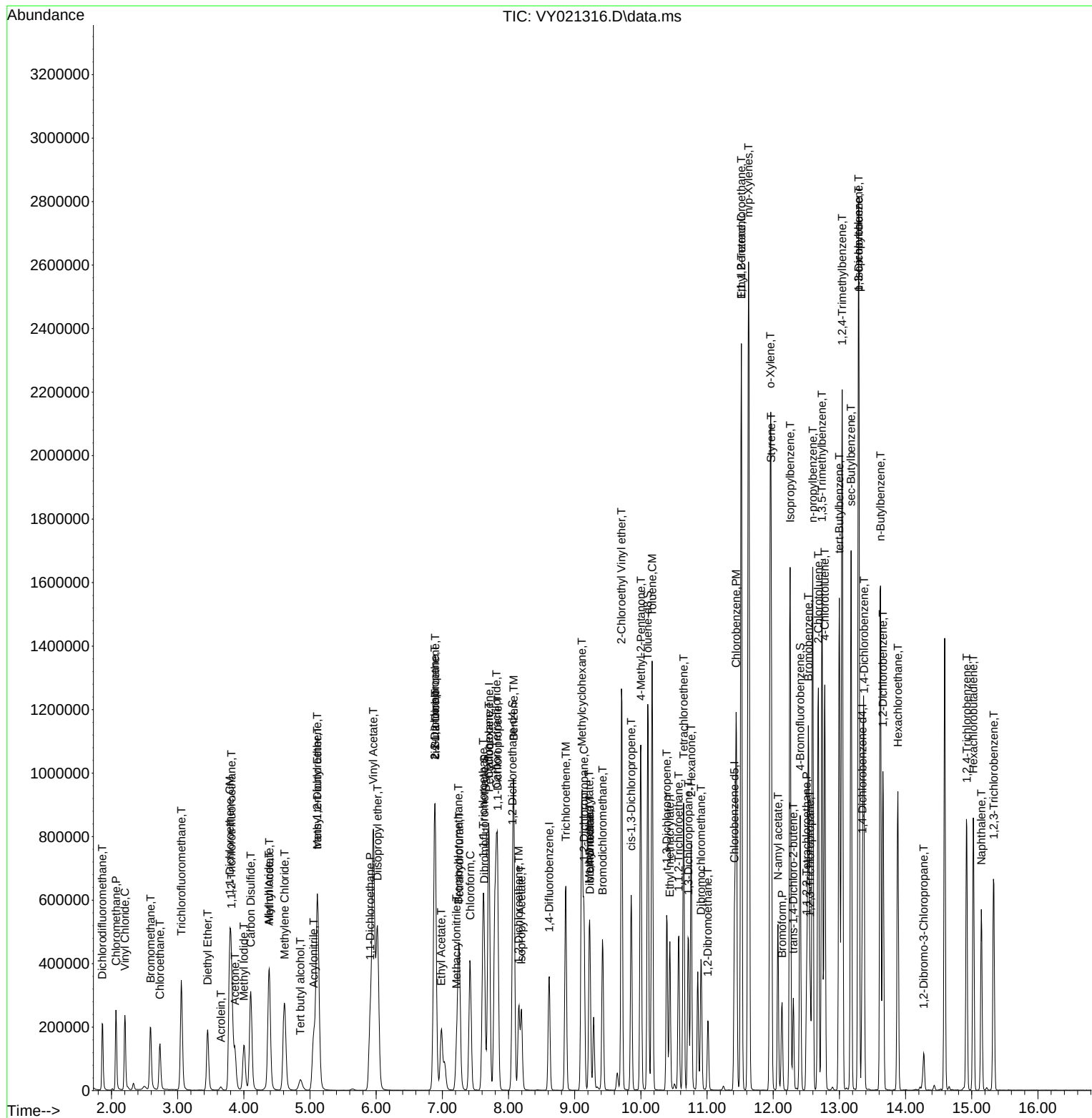
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021316.D
 Acq On : 25 Feb 2025 16:49
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC100

Quant Time: Feb 26 01:47:01 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 01:41:21 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021317.D
 Acq On : 25 Feb 2025 17:31
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY022525

Manual Integrations
 APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 03:42:29 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	183832	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	292214	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	257123	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	126299	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	98960	47.453	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	94.900%		
35) Dibromofluoromethane	7.634	113	93944	49.037	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	98.080%		
50) Toluene-d8	10.109	98	360528	48.694	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	97.380%		
62) 4-Bromofluorobenzene	12.408	95	120972	48.549	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	97.100%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.867	85	93894	53.871	ug/l	98
3) Chloromethane	2.068	50	120479	53.523	ug/l	100
4) Vinyl Chloride	2.202	62	121922	55.184	ug/l	98
5) Bromomethane	2.598	94	77054	52.483	ug/l	100
6) Chloroethane	2.732	64	75086	54.804	ug/l	99
7) Trichlorofluoromethane	3.062	101	178123	53.384	ug/l	94
8) Diethyl Ether	3.458	74	54929	54.849	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.818	101	104678	54.188	ug/l	98
10) Methyl Iodide	4.007	142	124707	61.361	ug/l	100
11) Tert butyl alcohol	4.848	59	35572	221.762	ug/l	100
12) 1,1-Dichloroethene	3.793	96	100075	54.104	ug/l	98
13) Acrolein	3.653	56	6337	51.554	ug/l	95
14) Allyl chloride	4.385	41	181554	55.361	ug/l	99
15) Acrylonitrile	5.055	53	118343	267.274	ug/l	99
16) Acetone	3.866	43	90886	227.197	ug/l	99
17) Carbon Disulfide	4.104	76	335241	54.581	ug/l	100
18) Methyl Acetate	4.385	43	51200	52.372	ug/l	98
19) Methyl tert-butyl Ether	5.116	73	265419	54.311	ug/l	97
20) Methylene Chloride	4.616	84	110456	51.062	ug/l	98
21) trans-1,2-Dichloroethene	5.116	96	112082	55.044	ug/l	99
22) Diisopropyl ether	6.018	45	377281	55.595	ug/l	99
23) Vinyl Acetate	5.957	43	1116005	275.197	ug/l	100
24) 1,1-Dichloroethane	5.915	63	210383	55.004	ug/l	99
25) 2-Butanone	6.890	43	152895	253.246	ug/l	97
26) 2,2-Dichloropropane	6.884	77	187045	53.893	ug/l	99
27) cis-1,2-Dichloroethene	6.890	96	130921	56.305	ug/l	98
28) Bromochloromethane	7.244	49	80309	47.452	ug/l	99
29) Tetrahydrofuran	7.262	42	102673	260.172	ug/l	99
30) Chloroform	7.421	83	213255	55.023	ug/l	98
31) Cyclohexane	7.701	56	191850	52.180	ug/l	100
32) 1,1,1-Trichloroethane	7.616	97	194325	55.084	ug/l	98
36) 1,1-Dichloropropene	7.835	75	157102	54.593	ug/l	100
37) Ethyl Acetate	6.982	43	72810	50.864	ug/l	99
38) Carbon Tetrachloride	7.817	117	175208	54.157	ug/l	99
39) Methylcyclohexane	9.109	83	197993	54.397	ug/l	99
40) Benzene	8.079	78	464323	54.583	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021317.D
 Acq On : 25 Feb 2025 17:31
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY022525

Quant Time: Feb 26 03:42:29 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

Manual Integrations
 APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.219	41	39412	49.244	ug/l	96
42) 1,2-Dichloroethane	8.158	62	129718	53.746	ug/l	100
43) Isopropyl Acetate	8.195	43	145128	52.380	ug/l #	87
44) Trichloroethene	8.865	130	116988	54.930	ug/l	100
45) 1,2-Dichloropropane	9.140	63	111498	54.464	ug/l	99
46) Dibromomethane	9.231	93	61031	54.539	ug/l	99
47) Bromodichloromethane	9.420	83	162580	54.489	ug/l	98
48) Methyl methacrylate	9.219	41	71360	55.076	ug/l	99
49) 1,4-Dioxane	9.225	88	13103	1053.076	ug/l	94
51) 4-Methyl-2-Pentanone	9.999	43	372486	262.628	ug/l	100
52) Toluene	10.170	92	294219	55.674	ug/l	100
53) t-1,3-Dichloropropene	10.396	75	152263	55.699	ug/l	100
54) cis-1,3-Dichloropropene	9.853	75	178951	55.451	ug/l	99
55) 1,1,2-Trichloroethane	10.572	97	77645	53.263	ug/l	98
56) Ethyl methacrylate	10.438	69	112155	55.679	ug/l	99
57) 1,3-Dichloropropane	10.719	76	139257	54.438	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.713	63	221395	228.990	ug/l	100
59) 2-Hexanone	10.761	43	246032	264.133	ug/l	99
60) Dibromochloromethane	10.914	129	107866	54.329	ug/l	100
61) 1,2-Dibromoethane	11.018	107	74447	53.942	ug/l	98
64) Tetrachloroethene	10.646	164	102887	52.940	ug/l	95
65) Chlorobenzene	11.444	112	314040	54.410	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.517	131	110179	54.517	ug/l	99
67) Ethyl Benzene	11.517	91	572425	55.992	ug/l	99
68) m/p-Xylenes	11.627	106	427892	111.274	ug/l	99
69) o-Xylene	11.956	106	202123	56.108	ug/l	99
70) Styrene	11.969	104	337489	56.307	ug/l	99
71) Bromoform	12.133	173	61959	53.590	ug/l #	100
73) Isopropylbenzene	12.255	105	540978	56.974	ug/l	99
74) N-amyl acetate	12.072	43	133968	55.509	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	89240	53.254	ug/l	99
76) 1,2,3-Trichloropropane	12.560	75	56345m	44.570	ug/l	
77) Bromobenzene	12.536	156	122121	55.296	ug/l	98
78) n-propylbenzene	12.597	91	654255	56.783	ug/l	100
79) 2-Chlorotoluene	12.682	91	369065	55.813	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	440379	56.549	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.304	75	30268	53.216	ug/l	96
82) 4-Chlorotoluene	12.779	91	375340	54.757	ug/l	100
83) tert-Butylbenzene	12.999	119	393228	55.900	ug/l	99
84) 1,2,4-Trimethylbenzene	13.048	105	438538	56.621	ug/l	100
85) sec-Butylbenzene	13.176	105	571874	55.655	ug/l	99
86) p-Isopropyltoluene	13.292	119	484140	56.427	ug/l	100
87) 1,3-Dichlorobenzene	13.292	146	239404	54.800	ug/l	100
88) 1,4-Dichlorobenzene	13.371	146	233477	54.098	ug/l	99
89) n-Butylbenzene	13.621	91	459065	56.856	ug/l	100
90) Hexachloroethane	13.883	117	98634	55.035	ug/l	99
91) 1,2-Dichlorobenzene	13.663	146	208776	54.545	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.279	75	13821	52.137	ug/l	98
93) 1,2,4-Trichlorobenzene	14.925	180	132464	56.703	ug/l	99
94) Hexachlorobutadiene	15.029	225	78745	53.541	ug/l	99
95) Naphthalene	15.151	128	222839	57.589	ug/l	100
96) 1,2,3-Trichlorobenzene	15.334	180	112466	56.980	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021317.D
Acq On : 25 Feb 2025 17:31
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY022525

Manual Integrations
APPROVED

Reviewed By :Romaben Patel 02/26/2025
Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 03:42:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

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

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

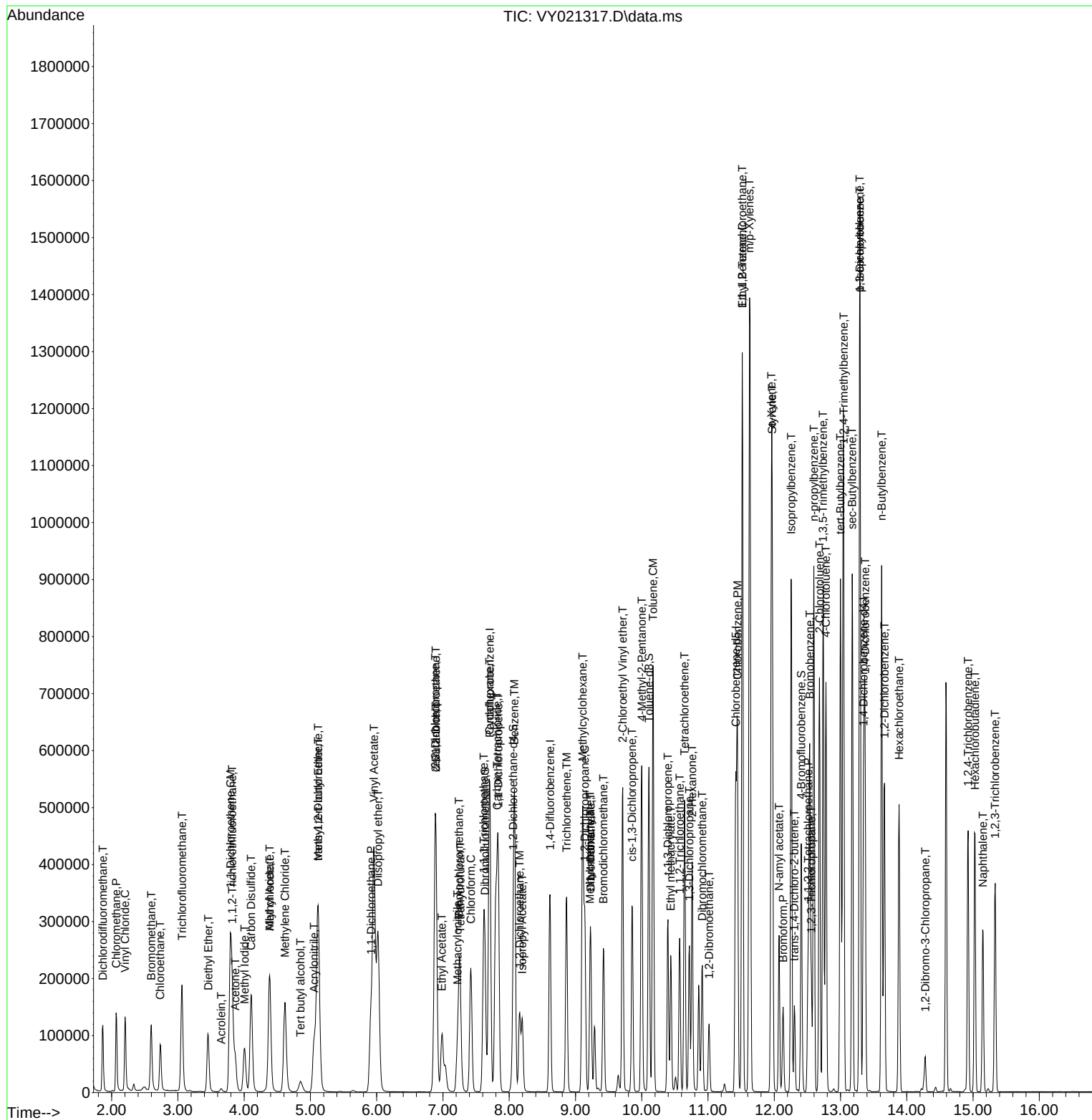
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021317.D
 Acq On : 25 Feb 2025 17:31
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY022525

Manual Integrations APPROVED

Reviewed By :Romaben Patel 02/26/2025
 Supervised By :Mahesh Dadoda 02/26/2025

Quant Time: Feb 26 03:42:29 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021317.D
 Acq On : 25 Feb 2025 17:31
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY022525

Quant Time: Feb 26 03:42:29 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	105	0.00
2 T	Dichlorodifluoromethane	0.474	0.511	-7.8	109	0.00
3 P	Chloromethane	0.612	0.655	-7.0	114	0.00
4 C	Vinyl Chloride	0.601	0.663	-10.3#	111	0.00
5 T	Bromomethane	0.399	0.419	-5.0	114	0.00
6 T	Chloroethane	0.373	0.408	-9.4	110	0.00
7 T	Trichlorofluoromethane	0.908	0.969	-6.7	108	0.00
8 T	Diethyl Ether	0.272	0.299	-9.9	109	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.525	0.569	-8.4	111	0.00
10 T	Methyl Iodide	0.553	0.678	-22.6	112	0.00
11 T	Tert butyl alcohol	0.044	0.039	11.4	101	0.00
12 CM	1,1-Dichloroethene	0.503	0.544	-8.2#	111	0.00
13 T	Acrolein	0.033	0.007	78.8#	108	0.00
14 T	Allyl chloride	0.892	0.988	-10.8	112	0.00
15 T	Acrylonitrile	0.120	0.129	-7.5	106	0.00
16 T	Acetone	0.109	0.099	9.2	81	0.00
17 T	Carbon Disulfide	1.671	1.824	-9.2	110	0.00
18 T	Methyl Acetate	0.266	0.279	-4.9	106	0.00
19 T	Methyl tert-butyl Ether	1.329	1.444	-8.7	107	0.00
20 T	Methylene Chloride	0.588	0.601	-2.2	108	0.00
21 T	trans-1,2-Dichloroethene	0.554	0.610	-10.1	111	0.00
22 T	Diisopropyl ether	1.846	2.052	-11.2	110	0.00
23 T	Vinyl Acetate	1.103	1.214	-10.1	107	0.00
24 P	1,1-Dichloroethane	1.040	1.144	-10.0	111	0.00
25 T	2-Butanone	0.164	0.166	-1.2	95	0.00
26 T	2,2-Dichloropropane	0.944	1.017	-7.7	110	0.00
27 T	cis-1,2-Dichloroethene	0.632	0.712	-12.7	112	0.00
28 T	Bromochloromethane	0.460	0.437	5.0	101	0.00
29 T	Tetrahydrofuran	0.107	0.112	-4.7	102	0.00
30 C	Chloroform	1.054	1.160	-10.1#	111	0.00
31 T	Cyclohexane	1.000	1.044	-4.4	111	0.00
32 T	1,1,1-Trichloroethane	0.960	1.057	-10.1	112	0.00
33 S	1,2-Dichloroethane-d4	0.567	0.538	5.1	102	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	107	0.00
35 S	Dibromofluoromethane	0.328	0.321	2.1	106	0.00
36 T	1,1-Dichloropropene	0.492	0.538	-9.3	112	0.00
37 T	Ethyl Acetate	0.245	0.249	-1.6	104	0.00
38 T	Carbon Tetrachloride	0.554	0.600	-8.3	111	0.00
39 T	Methylcyclohexane	0.623	0.678	-8.8	110	0.00
40 TM	Benzene	1.456	1.589	-9.1	111	0.00
41 T	Methacrylonitrile	0.137	0.135	1.5	99	0.00
42 TM	1,2-Dichloroethane	0.413	0.444	-7.5	110	0.00
43 T	Isopropyl Acetate	0.474	0.497	-4.9	104	0.00
44 TM	Trichloroethene	0.364	0.400	-9.9	112	0.00
45 C	1,2-Dichloropropane	0.350	0.382	-9.1#	110	0.00
46 T	Dibromomethane	0.191	0.209	-9.4	110	0.00
47 T	Bromodichloromethane	0.511	0.556	-8.8	110	0.00
48 T	Methyl methacrylate	0.222	0.244	-9.9	106	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021317.D
 Acq On : 25 Feb 2025 17:31
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICSVY022525

Quant Time: Feb 26 03:42:29 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	107	0.00
50 S	Toluene-d8	1.267	1.234	2.6	106	0.00
51 T	4-Methyl-2-Pentanone	0.243	0.255	-4.9	102	0.00
52 CM	Toluene	0.904	1.007	-11.4#	112	0.00
53 T	t-1,3-Dichloropropene	0.468	0.521	-11.3	108	0.00
54 T	cis-1,3-Dichloropropene	0.552	0.612	-10.9	111	0.00
55 T	1,1,2-Trichloroethane	0.249	0.266	-6.8	107	0.00
56 T	Ethyl methacrylate	0.345	0.384	-11.3	105	0.00
57 T	1,3-Dichloropropane	0.438	0.477	-8.9	109	0.00
58 T	2-Chloroethyl Vinyl ether	0.165	0.152	7.9	85	0.00
59 T	2-Hexanone	0.159	0.168	-5.7	99	0.00
60 T	Dibromochloromethane	0.340	0.369	-8.5	108	0.00
61 T	1,2-Dibromoethane	0.236	0.255	-8.1	108	0.00
62 S	4-Bromofluorobenzene	0.426	0.414	2.8	105	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	107	0.00
64 T	Tetrachloroethene	0.378	0.400	-5.8	110	0.00
65 PM	Chlorobenzene	1.122	1.221	-8.8	111	0.00
66 T	1,1,1,2-Tetrachloroethane	0.393	0.429	-9.2	111	0.00
67 C	Ethyl Benzene	1.988	2.226	-12.0#	112	0.00
68 T	m/p-Xylenes	0.748	0.832	-11.2	111	0.00
69 T	o-Xylene	0.701	0.786	-12.1	111	0.00
70 T	Styrene	1.166	1.313	-12.6	110	0.00
71 P	Bromoform	0.225	0.241	-7.1	105	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
73 T	Isopropylbenzene	3.759	4.283	-13.9	112	0.00
74 T	N-amyl acetate	0.955	1.061	-11.1	104	0.00
75 P	1,1,2,2-Tetrachloroethane	0.663	0.707	-6.6	105	0.00
76 T	1,2,3-Trichloropropane	0.500	0.446	10.8	88	0.00
77 T	Bromobenzene	0.874	0.967	-10.6	110	0.00
78 T	n-propylbenzene	4.561	5.180	-13.6	111	0.00
79 T	2-Chlorotoluene	2.618	2.922	-11.6	112	0.00
80 T	1,3,5-Trimethylbenzene	3.083	3.487	-13.1	111	0.00
81 T	trans-1,4-Dichloro-2-butene	0.225	0.240	-6.7	102	0.00
82 T	4-Chlorotoluene	2.714	2.972	-9.5	110	0.00
83 T	tert-Butylbenzene	2.785	3.113	-11.8	112	0.00
84 T	1,2,4-Trimethylbenzene	3.066	3.472	-13.2	111	0.00
85 T	sec-Butylbenzene	4.068	4.528	-11.3	110	0.00
86 T	p-Isopropyltoluene	3.397	3.833	-12.8	111	0.00
87 T	1,3-Dichlorobenzene	1.730	1.896	-9.6	110	0.00
88 T	1,4-Dichlorobenzene	1.709	1.849	-8.2	110	0.00
89 T	n-Butylbenzene	3.196	3.635	-13.7	110	0.00
90 T	Hexachloroethane	0.710	0.781	-10.0	112	0.00
91 T	1,2-Dichlorobenzene	1.515	1.653	-9.1	109	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.105	0.109	-3.8	100	0.00
93 T	1,2,4-Trichlorobenzene	0.925	1.049	-13.4	112	0.00
94 T	Hexachlorobutadiene	0.582	0.623	-7.0	109	0.00
95 T	Naphthalene	1.532	1.764	-15.1	106	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021317.D
Acq On : 25 Feb 2025 17:31
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY022525

Quant Time: Feb 26 03:42:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 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	0.781	0.890	-14.0	112	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021317.D
 Acq On : 25 Feb 2025 17:31
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICSVY022525

Quant Time: Feb 26 03:42:29 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	105	0.00
2 T	Dichlorodifluoromethane	50.000	53.871	-7.7	109	0.00
3 P	Chloromethane	50.000	53.523	-7.0	114	0.00
4 C	Vinyl Chloride	50.000	55.184	-10.4#	111	0.00
5 T	Bromomethane	50.000	52.483	-5.0	114	0.00
6 T	Chloroethane	50.000	54.804	-9.6	110	0.00
7 T	Trichlorofluoromethane	50.000	53.384	-6.8	108	0.00
8 T	Diethyl Ether	50.000	54.849	-9.7	109	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	54.188	-8.4	111	0.00
10 T	Methyl Iodide	50.000	61.361	-22.7	112	0.00
11 T	Tert butyl alcohol	250.000	221.762	11.3	101	0.00
12 CM	1,1-Dichloroethene	50.000	54.104	-8.2#	111	0.00
13 T	Acrolein	250.000	51.554	79.4#	108	0.00
14 T	Allyl chloride	50.000	55.361	-10.7	112	0.00
15 T	Acrylonitrile	250.000	267.274	-6.9	106	0.00
16 T	Acetone	250.000	227.197	9.1	81	0.00
17 T	Carbon Disulfide	50.000	54.581	-9.2	110	0.00
18 T	Methyl Acetate	50.000	52.372	-4.7	106	0.00
19 T	Methyl tert-butyl Ether	50.000	54.311	-8.6	107	0.00
20 T	Methylene Chloride	50.000	51.062	-2.1	108	0.00
21 T	trans-1,2-Dichloroethene	50.000	55.044	-10.1	111	0.00
22 T	Diisopropyl ether	50.000	55.595	-11.2	110	0.00
23 T	Vinyl Acetate	250.000	275.197	-10.1	107	0.00
24 P	1,1-Dichloroethane	50.000	55.004	-10.0	111	0.00
25 T	2-Butanone	250.000	253.246	-1.3	95	0.00
26 T	2,2-Dichloropropane	50.000	53.893	-7.8	110	0.00
27 T	cis-1,2-Dichloroethene	50.000	56.305	-12.6	112	0.00
28 T	Bromochloromethane	50.000	47.452	5.1	101	0.00
29 T	Tetrahydrofuran	250.000	260.172	-4.1	102	0.00
30 C	Chloroform	50.000	55.023	-10.0#	111	0.00
31 T	Cyclohexane	50.000	52.180	-4.4	111	0.00
32 T	1,1,1-Trichloroethane	50.000	55.084	-10.2	112	0.00
33 S	1,2-Dichloroethane-d4	50.000	47.453	5.1	102	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	107	0.00
35 S	Dibromofluoromethane	50.000	49.037	1.9	106	0.00
36 T	1,1-Dichloropropene	50.000	54.593	-9.2	112	0.00
37 T	Ethyl Acetate	50.000	50.864	-1.7	104	0.00
38 T	Carbon Tetrachloride	50.000	54.157	-8.3	111	0.00
39 T	Methylcyclohexane	50.000	54.397	-8.8	110	0.00
40 TM	Benzene	50.000	54.583	-9.2	111	0.00
41 T	Methacrylonitrile	50.000	49.244	1.5	99	0.00
42 TM	1,2-Dichloroethane	50.000	53.746	-7.5	110	0.00
43 T	Isopropyl Acetate	50.000	52.380	-4.8	104	0.00
44 TM	Trichloroethene	50.000	54.930	-9.9	112	0.00
45 C	1,2-Dichloropropane	50.000	54.464	-8.9#	110	0.00
46 T	Dibromomethane	50.000	54.539	-9.1	110	0.00
47 T	Bromodichloromethane	50.000	54.489	-9.0	110	0.00
48 T	Methyl methacrylate	50.000	55.076	-10.2	106	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
 Data File : VY021317.D
 Acq On : 25 Feb 2025 17:31
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICSVY022525

Quant Time: Feb 26 03:42:29 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	1053.076	-5.3	107	0.00
50 S	Toluene-d8	50.000	48.694	2.6	106	0.00
51 T	4-Methyl-2-Pentanone	250.000	262.628	-5.1	102	0.00
52 CM	Toluene	50.000	55.674	-11.3#	112	0.00
53 T	t-1,3-Dichloropropene	50.000	55.699	-11.4	108	0.00
54 T	cis-1,3-Dichloropropene	50.000	55.451	-10.9	111	0.00
55 T	1,1,2-Trichloroethane	50.000	53.263	-6.5	107	0.00
56 T	Ethyl methacrylate	50.000	55.679	-11.4	105	0.00
57 T	1,3-Dichloropropane	50.000	54.438	-8.9	109	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	228.990	8.4	85	0.00
59 T	2-Hexanone	250.000	264.133	-5.7	99	0.00
60 T	Dibromochloromethane	50.000	54.329	-8.7	108	0.00
61 T	1,2-Dibromoethane	50.000	53.942	-7.9	108	0.00
62 S	4-Bromofluorobenzene	50.000	48.549	2.9	105	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	107	0.00
64 T	Tetrachloroethene	50.000	52.940	-5.9	110	0.00
65 PM	Chlorobenzene	50.000	54.410	-8.8	111	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	54.517	-9.0	111	0.00
67 C	Ethyl Benzene	50.000	55.992	-12.0#	112	0.00
68 T	m/p-Xylenes	100.000	111.274	-11.3	111	0.00
69 T	o-Xylene	50.000	56.108	-12.2	111	0.00
70 T	Styrene	50.000	56.307	-12.6	110	0.00
71 P	Bromoform	50.000	53.590	-7.2	105	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	104	0.00
73 T	Isopropylbenzene	50.000	56.974	-13.9	112	0.00
74 T	N-ethyl acetate	50.000	55.509	-11.0	104	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	53.254	-6.5	105	0.00
76 T	1,2,3-Trichloropropane	50.000	44.570	10.9	88	0.00
77 T	Bromobenzene	50.000	55.296	-10.6	110	0.00
78 T	n-propylbenzene	50.000	56.783	-13.6	111	0.00
79 T	2-Chlorotoluene	50.000	55.813	-11.6	112	0.00
80 T	1,3,5-Trimethylbenzene	50.000	56.549	-13.1	111	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	53.216	-6.4	102	0.00
82 T	4-Chlorotoluene	50.000	54.757	-9.5	110	0.00
83 T	tert-Butylbenzene	50.000	55.900	-11.8	112	0.00
84 T	1,2,4-Trimethylbenzene	50.000	56.621	-13.2	111	0.00
85 T	sec-Butylbenzene	50.000	55.655	-11.3	110	0.00
86 T	p-Isopropyltoluene	50.000	56.427	-12.9	111	0.00
87 T	1,3-Dichlorobenzene	50.000	54.800	-9.6	110	0.00
88 T	1,4-Dichlorobenzene	50.000	54.098	-8.2	110	0.00
89 T	n-Butylbenzene	50.000	56.856	-13.7	110	0.00
90 T	Hexachloroethane	50.000	55.035	-10.1	112	0.00
91 T	1,2-Dichlorobenzene	50.000	54.545	-9.1	109	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	52.137	-4.3	100	0.00
93 T	1,2,4-Trichlorobenzene	50.000	56.703	-13.4	112	0.00
94 T	Hexachlorobutadiene	50.000	53.541	-7.1	109	0.00
95 T	Naphthalene	50.000	57.589	-15.2	106	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021317.D
Acq On : 25 Feb 2025 17:31
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY022525

Quant Time: Feb 26 03:42:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 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	56.980	-14.0	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: CHEMTECH Contract: GENV01

Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448

Instrument ID: MSVOA_X Calibration Date/Time: 03/05/2025 09:12

Lab File ID: VX045127.D Init. Calib. Date(s): 02/28/2025 02/28/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 01:27 03:47

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.770	0.671	0.1	-12.86	20
Vinyl Chloride	0.764	0.689		-9.82	20
Bromomethane	0.300	0.271		-9.67	20
Chloroethane	0.352	0.291		-17.33	20
Tert butyl alcohol	0.151	0.108		-28.48	20
1,1-Dichloroethene	0.614	0.553		-9.94	20
Acetone	0.369	0.301		-18.43	20
Carbon Disulfide	1.636	1.452		-11.25	20
Methyl tert-butyl Ether	2.061	1.855		-9.99	20
Methylene Chloride	0.731	0.640		-12.45	20
trans-1,2-Dichloroethene	0.607	0.571		-5.93	20
1,1-Dichloroethane	1.247	1.123	0.1	-9.94	20
2-Butanone	0.555	0.488		-12.07	20
Carbon Tetrachloride	0.465	0.457		-1.72	20
cis-1,2-Dichloroethene	0.749	0.684		-8.68	20
Chloroform	1.239	1.123		-9.36	20
1,1,1-Trichloroethane	1.000	0.923		-7.7	20
Benzene	1.448	1.416		-2.21	20
1,2-Dichloroethane	0.521	0.506		-2.88	20
Trichloroethene	0.340	0.338		-0.59	20
1,2-Dichloropropane	0.372	0.355		-4.57	20
Bromodichloromethane	0.516	0.512		-0.77	20
4-Methyl-2-Pentanone	0.587	0.550		-6.3	20
Toluene	0.849	0.858		1.06	20
t-1,3-Dichloropropene	0.431	0.464		7.66	20
cis-1,3-Dichloropropene	0.503	0.541		7.55	20
1,1,2-Trichloroethane	0.350	0.334		-4.57	20
2-Hexanone	0.425	0.404		-4.94	20
Dibromochloromethane	0.366	0.374		2.19	20
Tetrachloroethene	0.320	0.328		2.5	20
Chlorobenzene	1.058	1.044	0.3	-1.32	20
Ethyl Benzene	1.843	1.877		1.85	20
m/p-Xylenes	0.675	0.695		2.96	20
o-Xylene	0.681	0.676		-0.73	20
Styrene	1.101	1.118		1.54	20
Bromoform	0.266	0.272	0.1	2.26	20
1,1,2,2-Tetrachloroethane	1.432	1.304	0.3	-8.94	20
1,2-Dichloroethane-d4	0.795	0.743		-6.54	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: CHEMTECH Contract: GENV01

Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448

Instrument ID: MSVOA_X Calibration Date/Time: 03/05/2025 09:12

Lab File ID: VX045127.D Init. Calib. Date(s): 02/28/2025 02/28/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 01:27 03:47

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dibromofluoromethane	0.334	0.344		2.99	20
Toluene-d8	1.212	1.229		1.4	20
4-Bromofluorobenzene	0.402	0.412		2.49	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_X\Data\VX030525\
 Data File : VX045127.D
 Acq On : 05 Mar 2025 09:12
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 03/06/2025
 Supervised By : Mahesh Dadoda 03/06/2025

Quant Time: Mar 06 00:58:16 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	5.544	168	112291	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.751	114	190470	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	164207	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	74481	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.946	65	83482	46.738	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	93.480%
35) Dibromofluoromethane	5.373	113	65550	51.467	ug/l	-0.01
Spiked Amount	50.000	Range	75 - 124	Recovery	=	102.940%
50) Toluene-d8	8.641	98	234119	50.704	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	101.400%
62) 4-Bromofluorobenzene	11.079	95	78409	51.246	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	=	102.500%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.166	85	68622	48.548	ug/l	91
3) Chloromethane	1.307	50	75368	43.571	ug/l	97
4) Vinyl Chloride	1.374	62	77400	45.105	ug/l	98
5) Bromomethane	1.593	94	30416	45.089	ug/l	98
6) Chloroethane	1.660	64	32683	41.292	ug/l	95
7) Trichlorofluoromethane	1.867	101	105280	46.345	ug/l	98
8) Diethyl Ether	2.136	74	39098	44.003	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.312	101	65196	49.955	ug/l	99
10) Methyl Iodide	2.441	142	78420	48.082	ug/l	98
11) Tert butyl alcohol	2.995	59	60479	178.760	ug/l	100
12) 1,1-Dichloroethene	2.306	96	62054	44.972	ug/l	99
13) Acrolein	2.233	56	93541	239.177	ug/l	98
14) Allyl chloride	2.654	41	116846	47.573	ug/l	98
15) Acrylonitrile	3.062	53	196064	216.227	ug/l	99
16) Acetone	2.386	43	168809	203.698	ug/l	97
17) Carbon Disulfide	2.495	76	163042	44.364	ug/l	97
18) Methyl Acetate	2.703	43	91008	45.649	ug/l	99
19) Methyl tert-butyl Ether	3.111	73	208272	44.990	ug/l	100
20) Methylene Chloride	2.782	84	71831	43.757	ug/l	97
21) trans-1,2-Dichloroethene	3.081	96	64065	46.997	ug/l	97
22) Diisopropyl ether	3.757	45	232828	46.611	ug/l	96
23) Vinyl Acetate	3.715	43	988338	237.095	ug/l	99
24) 1,1-Dichloroethane	3.599	63	126104	45.046	ug/l	98
25) 2-Butanone	4.556	43	274151	219.773	ug/l	97
26) 2,2-Dichloropropane	4.465	77	89223	67.949	ug/l	96
27) cis-1,2-Dichloroethene	4.477	96	76838	45.662	ug/l	95
28) Bromochloromethane	4.891	49	62721	47.005	ug/l	99
29) Tetrahydrofuran	5.001	42	179664	214.470	ug/l	100
30) Chloroform	5.086	83	126092	45.331	ug/l	98
31) Cyclohexane	5.458	56	116269	47.845	ug/l	99
32) 1,1,1-Trichloroethane	5.373	97	103689	46.154	ug/l	99
36) 1,1-Dichloropropene	5.678	75	86057	49.270	ug/l	99
37) Ethyl Acetate	4.715	43	105492	46.871	ug/l	99
38) Carbon Tetrachloride	5.666	117	87042	49.086	ug/l	99
39) Methylcyclohexane	7.373	83	115913	55.384	ug/l	98
40) Benzene	6.025	78	269708	48.900	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
 Data File : VX045127.D
 Acq On : 05 Mar 2025 09:12
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 03/06/2025
 Supervised By : Mahesh Dadoda 03/06/2025

Quant Time: Mar 06 00:58:16 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.916	41	59812	49.148	ug/l	98
42) 1,2-Dichloroethane	6.080	62	96363	48.518	ug/l	100
43) Isopropyl Acetate	6.336	43	161345	48.480	ug/l	100
44) Trichloroethene	7.117	130	64443	49.759	ug/l	99
45) 1,2-Dichloropropane	7.421	63	67543	47.629	ug/l	97
46) Dibromomethane	7.574	93	48542	48.429	ug/l	98
47) Bromodichloromethane	7.818	83	97568	49.627	ug/l	100
48) Methyl methacrylate	7.690	41	80625	48.288	ug/l	99
49) 1,4-Dioxane	7.665	88	31601	897.247	ug/l	97
51) 4-Methyl-2-Pentanone	8.574	43	523954	234.470	ug/l	99
52) Toluene	8.714	92	163330	50.472	ug/l	98
53) t-1,3-Dichloropropene	8.976	75	88322	53.736	ug/l	99
54) cis-1,3-Dichloropropene	8.360	75	102986	53.733	ug/l	97
55) 1,1,2-Trichloroethane	9.147	97	63538	47.694	ug/l	96
56) Ethyl methacrylate	9.116	69	98764	48.771	ug/l	99
57) 1,3-Dichloropropane	9.305	76	110247	47.819	ug/l	98
58) 2-Chloroethyl Vinyl ether	8.238	63	263234	266.477	ug/l	100
59) 2-Hexanone	9.427	43	384958	237.763	ug/l	100
60) Dibromochloromethane	9.518	129	71321	51.202	ug/l	98
61) 1,2-Dibromoethane	9.604	107	64667	48.624	ug/l	99
64) Tetrachloroethene	9.269	164	53835	51.190	ug/l	97
65) Chlorobenzene	10.073	112	171449	49.344	ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.159	131	56543	48.866	ug/l	99
67) Ethyl Benzene	10.189	91	308282	50.920	ug/l	99
68) m/p-Xylenes	10.299	106	228130	102.932	ug/l	100
69) o-Xylene	10.640	106	111076	49.692	ug/l	99
70) Styrene	10.652	104	183603	50.763	ug/l	100
71) Bromoform	10.799	173	44654	51.176	ug/l #	99
73) Isopropylbenzene	10.957	105	289986	49.882	ug/l	100
74) N-amyl acetate	10.841	43	133706	49.015	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.213	83	97087	45.510	ug/l	98
76) 1,2,3-Trichloropropane	11.238	75	77426m	44.663	ug/l	
77) Bromobenzene	11.195	156	65952	48.083	ug/l	99
78) n-propylbenzene	11.305	91	338544	51.552	ug/l	99
79) 2-Chlorotoluene	11.360	91	196917	47.083	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	235799	50.163	ug/l	99
81) trans-1,4-Dichloro-2-b...	11.018	75	26035	51.395	ug/l	98
82) 4-Chlorotoluene	11.451	91	223976	49.137	ug/l	100
83) tert-Butylbenzene	11.713	119	232845	48.210	ug/l	100
84) 1,2,4-Trimethylbenzene	11.750	105	236246	49.949	ug/l	100
85) sec-Butylbenzene	11.890	105	298121	51.530	ug/l	99
86) p-Isopropyltoluene	12.006	119	242004	51.761	ug/l	99
87) 1,3-Dichlorobenzene	11.969	146	119022	48.641	ug/l	100
88) 1,4-Dichlorobenzene	12.042	146	118036	47.680	ug/l	99
89) n-Butylbenzene	12.329	91	222008	55.132	ug/l	100
90) Hexachloroethane	12.536	117	42059	49.734	ug/l	99
91) 1,2-Dichlorobenzene	12.335	146	121609	49.543	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	19675	47.340	ug/l	98
93) 1,2,4-Trichlorobenzene	13.585	180	73807	52.807	ug/l	100
94) Hexachlorobutadiene	13.725	225	30136	52.591	ug/l	97
95) Naphthalene	13.774	128	269735	50.230	ug/l	100
96) 1,2,3-Trichlorobenzene	13.963	180	75650	51.306	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
Data File : VX045127.D
Acq On : 05 Mar 2025 09:12
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/06/2025
Supervised By :Mahesh Dadoda 03/06/2025

Quant Time: Mar 06 00:58:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 2025
Response via : Initial Calibration

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

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

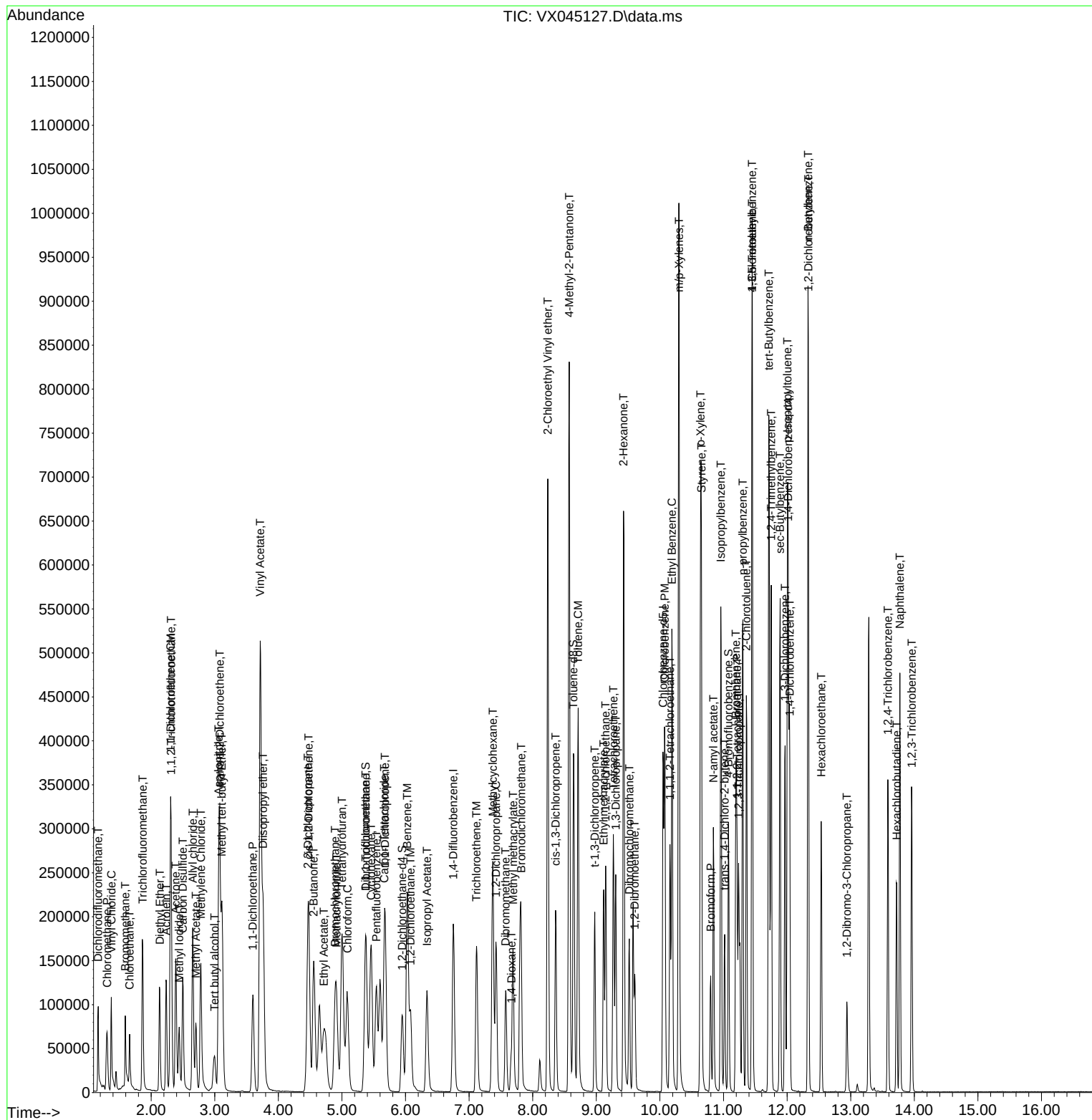
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
Data File : VX045127.D
Acq On : 05 Mar 2025 09:12
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Quant Time: Mar 06 00:58:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By : John Carlone 03/06/2025
Supervised By : Mahesh Dadoda 03/06/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
 Data File : VX045127.D
 Acq On : 05 Mar 2025 09:12
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC050

Quant Time: Mar 06 00:58:16 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 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	109	0.00
2 T	Dichlorodifluoromethane	0.629	0.611	2.9	106	0.00
3 P	Chloromethane	0.770	0.671	12.9	97	0.00
4 C	Vinyl Chloride	0.764	0.689	9.8#	99	0.00
5 T	Bromomethane	0.300	0.271	9.7	101	0.00
6 T	Chloroethane	0.352	0.291	17.3	85	0.00
7 T	Trichlorofluoromethane	1.011	0.938	7.2	97	0.00
8 T	Diethyl Ether	0.396	0.348	12.1	98	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.581	0.581	0.0	106	0.00
10 T	Methyl Iodide	0.726	0.698	3.9	99	0.00
11 T	Tert butyl alcohol	0.151	0.108	28.5#	87	0.01
12 CM	1,1-Dichloroethene	0.614	0.553	9.9#	96	0.00
13 T	Acrolein	0.174	0.167	4.0	104	0.00
14 T	Allyl chloride	1.094	1.041	4.8	102	0.00
15 T	Acrylonitrile	0.404	0.349	13.6	93	0.00
16 T	Acetone	0.369	0.301	18.4	93	0.00
17 T	Carbon Disulfide	1.636	1.452	11.2	95	0.00
18 T	Methyl Acetate	0.888	0.810	8.8	102	0.00
19 T	Methyl tert-butyl Ether	2.061	1.855	10.0	97	0.00
20 T	Methylene Chloride	0.731	0.640	12.4	100	0.00
21 T	trans-1,2-Dichloroethene	0.607	0.571	5.9	98	0.00
22 T	Diisopropyl ether	2.224	2.073	6.8	98	0.00
23 T	Vinyl Acetate	1.856	1.760	5.2	97	0.00
24 P	1,1-Dichloroethane	1.247	1.123	9.9	98	0.00
25 T	2-Butanone	0.555	0.488	12.1	92	0.00
26 T	2,2-Dichloropropane	0.585	0.795	-35.9#	145	0.00
27 T	cis-1,2-Dichloroethene	0.749	0.684	8.7	98	0.00
28 T	Bromochloromethane	0.594	0.559	5.9	101	0.00
29 T	Tetrahydrofuran	0.373	0.320	14.2	93	0.00
30 C	Chloroform	1.239	1.123	9.4#	98	0.00
31 T	Cyclohexane	1.082	1.035	4.3	102	0.00
32 T	1,1,1-Trichloroethane	1.000	0.923	7.7	98	0.00
33 S	1,2-Dichloroethane-d4	0.795	0.743	6.5	107	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
35 S	Dibromofluoromethane	0.334	0.344	-3.0	107	-0.01
36 T	1,1-Dichloropropene	0.459	0.452	1.5	99	-0.01
37 T	Ethyl Acetate	0.591	0.554	6.3	93	0.00
38 T	Carbon Tetrachloride	0.465	0.457	1.7	100	0.00
39 T	Methylcyclohexane	0.549	0.609	-10.9	106	0.00
40 TM	Benzene	1.448	1.416	2.2	97	0.00
41 T	Methacrylonitrile	0.319	0.314	1.6	94	0.00
42 TM	1,2-Dichloroethane	0.521	0.506	2.9	98	0.00
43 T	Isopropyl Acetate	0.874	0.847	3.1	93	0.00
44 TM	Trichloroethene	0.340	0.338	0.6	101	0.00
45 C	1,2-Dichloropropane	0.372	0.355	4.6#	98	0.00
46 T	Dibromomethane	0.263	0.255	3.0	97	0.00
47 T	Bromodichloromethane	0.516	0.512	0.8	100	0.00
48 T	Methyl methacrylate	0.438	0.423	3.4	93	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
 Data File : VX045127.D
 Acq On : 05 Mar 2025 09:12
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC050

Quant Time: Mar 06 00:58:16 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 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	0.009	0.008	11.1	90	0.00
50 S	Toluene-d8	1.212	1.229	-1.4	104	0.00
51 T	4-Methyl-2-Pentanone	0.587	0.550	6.3	92	0.00
52 CM	Toluene	0.849	0.858	-1.1#	98	0.00
53 T	t-1,3-Dichloropropene	0.431	0.464	-7.7	101	0.00
54 T	cis-1,3-Dichloropropene	0.503	0.541	-7.6	103	0.00
55 T	1,1,2-Trichloroethane	0.350	0.334	4.6	96	0.00
56 T	Ethyl methacrylate	0.532	0.519	2.4	93	0.00
57 T	1,3-Dichloropropane	0.605	0.579	4.3	95	0.00
58 T	2-Chloroethyl Vinyl ether	0.259	0.276	-6.6	100	0.00
59 T	2-Hexanone	0.425	0.404	4.9	92	0.00
60 T	Dibromochloromethane	0.366	0.374	-2.2	100	0.00
61 T	1,2-Dibromoethane	0.349	0.340	2.6	98	0.00
62 S	4-Bromofluorobenzene	0.402	0.412	-2.5	105	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
64 T	Tetrachloroethene	0.320	0.328	-2.5	102	0.00
65 PM	Chlorobenzene	1.058	1.044	1.3	97	0.00
66 T	1,1,1,2-Tetrachloroethane	0.352	0.344	2.3	98	0.00
67 C	Ethyl Benzene	1.843	1.877	-1.8#	97	0.00
68 T	m/p-Xylenes	0.675	0.695	-3.0	97	0.00
69 T	o-Xylene	0.681	0.676	0.7	97	0.00
70 T	Styrene	1.101	1.118	-1.5	96	0.00
71 P	Bromoform	0.266	0.272	-2.3	100	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00
73 T	Isopropylbenzene	3.903	3.893	0.3	98	0.00
74 T	N-amyl acetate	1.831	1.795	2.0	95	0.00
75 P	1,1,2,2-Tetrachloroethane	1.432	1.304	8.9	96	0.00
76 T	1,2,3-Trichloropropane	1.164	1.040	10.7	95	0.00
77 T	Bromobenzene	0.921	0.885	3.9	99	0.00
78 T	n-propylbenzene	4.409	4.545	-3.1	99	0.00
79 T	2-Chlorotoluene	2.808	2.644	5.8	96	0.00
80 T	1,3,5-Trimethylbenzene	3.156	3.166	-0.3	98	0.00
81 T	trans-1,4-Dichloro-2-butene	0.340	0.350	-2.9	108	0.00
82 T	4-Chlorotoluene	3.060	3.007	1.7	97	0.00
83 T	tert-Butylbenzene	3.242	3.126	3.6	97	0.00
84 T	1,2,4-Trimethylbenzene	3.175	3.172	0.1	98	0.00
85 T	sec-Butylbenzene	3.884	4.003	-3.1	99	0.00
86 T	p-Isopropyltoluene	3.139	3.249	-3.5	99	0.00
87 T	1,3-Dichlorobenzene	1.643	1.598	2.7	100	0.00
88 T	1,4-Dichlorobenzene	1.662	1.585	4.6	98	0.00
89 T	n-Butylbenzene	2.703	2.981	-10.3	103	0.00
90 T	Hexachloroethane	0.568	0.565	0.5	98	0.00
91 T	1,2-Dichlorobenzene	1.648	1.633	0.9	102	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.279	0.264	5.4	95	0.00
93 T	1,2,4-Trichlorobenzene	0.938	0.991	-5.7	103	0.00
94 T	Hexachlorobutadiene	0.385	0.405	-5.2	108	0.00
95 T	Naphthalene	3.605	3.622	-0.5	97	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
Data File : VX045127.D
Acq On : 05 Mar 2025 09:12
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Mar 06 00:58:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 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	0.990	1.016	-2.6	100	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
 Data File : VX045127.D
 Acq On : 05 Mar 2025 09:12
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC050

Quant Time: Mar 06 00:58:16 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 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	109	0.00
2 T	Dichlorodifluoromethane	50.000	48.548	2.9	106	0.00
3 P	Chloromethane	50.000	43.571	12.9	97	0.00
4 C	Vinyl Chloride	50.000	45.105	9.8#	99	0.00
5 T	Bromomethane	50.000	45.089	9.8	101	0.00
6 T	Chloroethane	50.000	41.292	17.4	85	0.00
7 T	Trichlorofluoromethane	50.000	46.345	7.3	97	0.00
8 T	Diethyl Ether	50.000	44.003	12.0	98	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	49.955	0.1	106	0.00
10 T	Methyl Iodide	50.000	48.082	3.8	99	0.00
11 T	Tert butyl alcohol	250.000	178.760	28.5#	87	0.01
12 CM	1,1-Dichloroethene	50.000	44.972	10.1#	96	0.00
13 T	Acrolein	250.000	239.177	4.3	104	0.00
14 T	Allyl chloride	50.000	47.573	4.9	102	0.00
15 T	Acrylonitrile	250.000	216.227	13.5	93	0.00
16 T	Acetone	250.000	203.698	18.5	93	0.00
17 T	Carbon Disulfide	50.000	44.364	11.3	95	0.00
18 T	Methyl Acetate	50.000	45.649	8.7	102	0.00
19 T	Methyl tert-butyl Ether	50.000	44.990	10.0	97	0.00
20 T	Methylene Chloride	50.000	43.757	12.5	100	0.00
21 T	trans-1,2-Dichloroethene	50.000	46.997	6.0	98	0.00
22 T	Diisopropyl ether	50.000	46.611	6.8	98	0.00
23 T	Vinyl Acetate	250.000	237.095	5.2	97	0.00
24 P	1,1-Dichloroethane	50.000	45.046	9.9	98	0.00
25 T	2-Butanone	250.000	219.773	12.1	92	0.00
26 T	2,2-Dichloropropane	50.000	67.949	-35.9#	145	0.00
27 T	cis-1,2-Dichloroethene	50.000	45.662	8.7	98	0.00
28 T	Bromochloromethane	50.000	47.005	6.0	101	0.00
29 T	Tetrahydrofuran	250.000	214.470	14.2	93	0.00
30 C	Chloroform	50.000	45.331	9.3#	98	0.00
31 T	Cyclohexane	50.000	47.845	4.3	102	0.00
32 T	1,1,1-Trichloroethane	50.000	46.154	7.7	98	0.00
33 S	1,2-Dichloroethane-d4	50.000	46.738	6.5	107	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	102	0.00
35 S	Dibromofluoromethane	50.000	51.467	-2.9	107	-0.01
36 T	1,1-Dichloropropene	50.000	49.270	1.5	99	-0.01
37 T	Ethyl Acetate	50.000	46.871	6.3	93	0.00
38 T	Carbon Tetrachloride	50.000	49.086	1.8	100	0.00
39 T	Methylcyclohexane	50.000	55.384	-10.8	106	0.00
40 TM	Benzene	50.000	48.900	2.2	97	0.00
41 T	Methacrylonitrile	50.000	49.148	1.7	94	0.00
42 TM	1,2-Dichloroethane	50.000	48.518	3.0	98	0.00
43 T	Isopropyl Acetate	50.000	48.480	3.0	93	0.00
44 TM	Trichloroethene	50.000	49.759	0.5	101	0.00
45 C	1,2-Dichloropropane	50.000	47.629	4.7#	98	0.00
46 T	Dibromomethane	50.000	48.429	3.1	97	0.00
47 T	Bromodichloromethane	50.000	49.627	0.7	100	0.00
48 T	Methyl methacrylate	50.000	48.288	3.4	93	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
 Data File : VX045127.D
 Acq On : 05 Mar 2025 09:12
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC050

Quant Time: Mar 06 00:58:16 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 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	897.247	10.3	90	0.00
50 S	Toluene-d8	50.000	50.704	-1.4	104	0.00
51 T	4-Methyl-2-Pentanone	250.000	234.470	6.2	92	0.00
52 CM	Toluene	50.000	50.472	-0.9#	98	0.00
53 T	t-1,3-Dichloropropene	50.000	53.736	-7.5	101	0.00
54 T	cis-1,3-Dichloropropene	50.000	53.733	-7.5	103	0.00
55 T	1,1,2-Trichloroethane	50.000	47.694	4.6	96	0.00
56 T	Ethyl methacrylate	50.000	48.771	2.5	93	0.00
57 T	1,3-Dichloropropane	50.000	47.819	4.4	95	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	266.477	-6.6	100	0.00
59 T	2-Hexanone	250.000	237.763	4.9	92	0.00
60 T	Dibromochloromethane	50.000	51.202	-2.4	100	0.00
61 T	1,2-Dibromoethane	50.000	48.624	2.8	98	0.00
62 S	4-Bromofluorobenzene	50.000	51.246	-2.5	105	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	101	0.00
64 T	Tetrachloroethene	50.000	51.190	-2.4	102	0.00
65 PM	Chlorobenzene	50.000	49.344	1.3	97	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	48.866	2.3	98	0.00
67 C	Ethyl Benzene	50.000	50.920	-1.8#	97	0.00
68 T	m/p-Xylenes	100.000	102.932	-2.9	97	0.00
69 T	o-Xylene	50.000	49.692	0.6	97	0.00
70 T	Styrene	50.000	50.763	-1.5	96	0.00
71 P	Bromoform	50.000	51.176	-2.4	100	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	105	0.00
73 T	Isopropylbenzene	50.000	49.882	0.2	98	0.00
74 T	N-amyl acetate	50.000	49.015	2.0	95	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	45.510	9.0	96	0.00
76 T	1,2,3-Trichloropropane	50.000	44.663	10.7	95	0.00
77 T	Bromobenzene	50.000	48.083	3.8	99	0.00
78 T	n-propylbenzene	50.000	51.552	-3.1	99	0.00
79 T	2-Chlorotoluene	50.000	47.083	5.8	96	0.00
80 T	1,3,5-Trimethylbenzene	50.000	50.163	-0.3	98	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	51.395	-2.8	108	0.00
82 T	4-Chlorotoluene	50.000	49.137	1.7	97	0.00
83 T	tert-Butylbenzene	50.000	48.210	3.6	97	0.00
84 T	1,2,4-Trimethylbenzene	50.000	49.949	0.1	98	0.00
85 T	sec-Butylbenzene	50.000	51.530	-3.1	99	0.00
86 T	p-Isopropyltoluene	50.000	51.761	-3.5	99	0.00
87 T	1,3-Dichlorobenzene	50.000	48.641	2.7	100	0.00
88 T	1,4-Dichlorobenzene	50.000	47.680	4.6	98	0.00
89 T	n-Butylbenzene	50.000	55.132	-10.3	103	0.00
90 T	Hexachloroethane	50.000	49.734	0.5	98	0.00
91 T	1,2-Dichlorobenzene	50.000	49.543	0.9	102	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	47.340	5.3	95	0.00
93 T	1,2,4-Trichlorobenzene	50.000	52.807	-5.6	103	0.00
94 T	Hexachlorobutadiene	50.000	52.591	-5.2	108	0.00
95 T	Naphthalene	50.000	50.230	-0.5	97	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
Data File : VX045127.D
Acq On : 05 Mar 2025 09:12
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Mar 06 00:58:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 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	51.306	-2.6	100	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: CHEMTECH Contract: GENV01

Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448

Instrument ID: MSVOA_Y Calibration Date/Time: 02/27/2025 10:13

Lab File ID: VY021346.D Init. Calib. Date(s): 02/25/2025 02/25/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:40 16:49

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.612	0.531	0.1	-13.23	20
Vinyl Chloride	0.601	0.554		-7.82	20
Bromomethane	0.399	0.355		-11.03	20
Chloroethane	0.373	0.354		-5.09	20
Tert butyl alcohol	0.044	0.035		-20.45	20
1,1-Dichloroethene	0.503	0.467		-7.16	20
Acetone	0.109	0.108		-0.92	20
Carbon Disulfide	1.671	1.540		-7.84	20
Methyl tert-butyl Ether	1.329	1.304		-1.88	20
Methylene Chloride	0.588	0.523		-11.05	20
trans-1,2-Dichloroethene	0.554	0.533		-3.79	20
1,1-Dichloroethane	1.040	0.977	0.1	-6.06	20
2-Butanone	0.164	0.156		-4.88	20
Carbon Tetrachloride	0.554	0.524		-5.41	20
cis-1,2-Dichloroethene	0.632	0.615		-2.69	20
Chloroform	1.054	0.999		-5.22	20
1,1,1-Trichloroethane	0.960	0.904		-5.83	20
Benzene	1.456	1.381		-5.15	20
1,2-Dichloroethane	0.413	0.403		-2.42	20
Trichloroethene	0.364	0.350		-3.85	20
1,2-Dichloropropane	0.350	0.331		-5.43	20
Bromodichloromethane	0.511	0.501		-1.96	20
4-Methyl-2-Pentanone	0.243	0.236		-2.88	20
Toluene	0.904	0.878		-2.88	20
t-1,3-Dichloropropene	0.468	0.463		-1.07	20
cis-1,3-Dichloropropene	0.552	0.535		-3.08	20
1,1,2-Trichloroethane	0.249	0.238		-4.42	20
2-Hexanone	0.159	0.157		-1.26	20
Dibromochloromethane	0.340	0.334		-1.76	20
Tetrachloroethene	0.378	0.347		-8.2	20
Chlorobenzene	1.122	1.069	0.3	-4.72	20
Ethyl Benzene	1.988	1.908		-4.02	20
m/p-Xylenes	0.748	0.712		-4.81	20
o-Xylene	0.701	0.674		-3.85	20
Styrene	1.166	1.136		-2.57	20
Bromoform	0.225	0.221	0.1	-1.78	20
1,1,2,2-Tetrachloroethane	0.663	0.638	0.3	-3.77	20
1,2-Dichloroethane-d4	0.567	0.558		-1.59	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: CHEMTECH Contract: GENV01

Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448

Instrument ID: MSVOA_Y Calibration Date/Time: 02/27/2025 10:13

Lab File ID: VY021346.D Init. Calib. Date(s): 02/25/2025 02/25/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:40 16:49

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dibromofluoromethane	0.328	0.334		1.83	20
Toluene-d8	1.267	1.261		-0.47	20
4-Bromofluorobenzene	0.426	0.425		-0.23	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\VY022725\
 Data File : VY021346.D
 Acq On : 27 Feb 2025 10:13
 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 : Mahesh Dadoda 02/28/2025
 Supervised By : Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:39:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	216838	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	336652	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	298167	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	146841	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.061	65	121017	49.197	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	98.400%
35) Dibromofluoromethane	7.634	113	112378	50.916	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	101.840%
50) Toluene-d8	10.109	98	424430	49.758	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	99.520%
62) 4-Bromofluorobenzene	12.408	95	142970	49.803	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	99.600%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.867	85	89451	43.510	ug/l	96
3) Chloromethane	2.068	50	115226	43.398	ug/l	98
4) Vinyl Chloride	2.202	62	120087	46.080	ug/l	98
5) Bromomethane	2.592	94	76928	44.421	ug/l	99
6) Chloroethane	2.733	64	76655	47.433	ug/l	99
7) Trichlorofluoromethane	3.056	101	185757	47.198	ug/l	96
8) Diethyl Ether	3.452	74	57510	48.685	ug/l	98
9) 1,1,2-Trichlorotrifluo...	3.812	101	104835	46.008	ug/l	99
10) Methyl Iodide	4.001	142	123304	51.435	ug/l	99
11) Tert butyl alcohol	4.860	59	38335	202.609	ug/l	99
12) 1,1-Dichloroethene	3.787	96	101275	46.418	ug/l	94
13) Acrolein	3.647	56	8893	61.335	ug/l	94
14) Allyl chloride	4.379	41	177389	45.858	ug/l	99
15) Acrylonitrile	5.055	53	122583	234.709	ug/l	100
16) Acetone	3.866	43	116573	247.053	ug/l	96
17) Carbon Disulfide	4.104	76	333979	46.099	ug/l	99
18) Methyl Acetate	4.385	43	55015	47.708	ug/l	97
19) Methyl tert-butyl Ether	5.116	73	282838	49.066	ug/l	100
20) Methylene Chloride	4.610	84	113459	44.466	ug/l	96
21) trans-1,2-Dichloroethene	5.110	96	115652	48.151	ug/l	98
22) Diisopropyl ether	6.019	45	377852	47.204	ug/l	98
23) Vinyl Acetate	5.958	43	1144384	239.240	ug/l	100
24) 1,1-Dichloroethane	5.915	63	211938	46.976	ug/l	99
25) 2-Butanone	6.890	43	168838	237.086	ug/l	96
26) 2,2-Dichloropropane	6.878	77	190004	46.413	ug/l	100
27) cis-1,2-Dichloroethene	6.890	96	133307	48.604	ug/l	97
28) Bromochloromethane	7.244	49	98374	49.278	ug/l	98
29) Tetrahydrofuran	7.256	42	109505	235.247	ug/l	99
30) Chloroform	7.421	83	216589	47.377	ug/l	99
31) Cyclohexane	7.701	56	185986	42.885	ug/l	99
32) 1,1,1-Trichloroethane	7.616	97	196015	47.106	ug/l	99
36) 1,1-Dichloropropene	7.835	75	155190	46.810	ug/l	99
37) Ethyl Acetate	6.982	43	76874	46.614	ug/l	98
38) Carbon Tetrachloride	7.817	117	176563	47.372	ug/l	100
39) Methylcyclohexane	9.109	83	191303	45.621	ug/l	99
40) Benzene	8.079	78	465038	47.451	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
 Data File : VY021346.D
 Acq On : 27 Feb 2025 10:13
 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 :Mahesh Dadoda 02/28/2025
 Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:39:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.226	41	41275	44.764	ug/l	91
42) 1,2-Dichloroethane	8.158	62	135785	48.834	ug/l	100
43) Isopropyl Acetate	8.195	43	150377	47.110	ug/l #	86
44) Trichloroethene	8.866	130	117718	47.977	ug/l	98
45) 1,2-Dichloropropane	9.140	63	111459	47.258	ug/l	98
46) Dibromomethane	9.231	93	62998	48.866	ug/l	99
47) Bromodichloromethane	9.420	83	168603	49.049	ug/l	99
48) Methyl methacrylate	9.219	41	70974	47.548	ug/l	96
49) 1,4-Dioxane	9.225	88	14834	1034.825	ug/l	89
51) 4-Methyl-2-Pentanone	10.000	43	397113	243.033	ug/l	99
52) Toluene	10.170	92	295469	48.531	ug/l	99
53) t-1,3-Dichloropropene	10.396	75	155924	49.509	ug/l	99
54) cis-1,3-Dichloropropene	9.853	75	180216	48.471	ug/l	100
55) 1,1,2-Trichloroethane	10.573	97	80212	47.760	ug/l	97
56) Ethyl methacrylate	10.438	69	118449	51.042	ug/l	97
57) 1,3-Dichloropropane	10.719	76	143446	48.674	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.707	63	268918	241.429	ug/l	99
59) 2-Hexanone	10.762	43	264507	246.484	ug/l	98
60) Dibromochloromethane	10.908	129	112424	49.151	ug/l	100
61) 1,2-Dibromoethane	11.018	107	76619	48.188	ug/l	97
64) Tetrachloroethene	10.646	164	103607	45.972	ug/l	98
65) Chlorobenzene	11.444	112	318660	47.611	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.518	131	112125	47.843	ug/l	99
67) Ethyl Benzene	11.518	91	568987	47.994	ug/l	99
68) m/p-Xylenes	11.627	106	424503	95.197	ug/l	99
69) o-Xylene	11.957	106	201012	48.118	ug/l	98
70) Styrene	11.969	104	338828	48.749	ug/l	100
71) Bromoform	12.133	173	65877	49.136	ug/l #	100
73) Isopropylbenzene	12.255	105	534388	48.407	ug/l	100
74) N-amyl acetate	12.072	43	137883	49.139	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.505	83	93722	48.104	ug/l	100
76) 1,2,3-Trichloropropane	12.560	75	71287m	48.501	ug/l	
77) Bromobenzene	12.530	156	124444	48.465	ug/l	98
78) n-propylbenzene	12.597	91	643447	48.033	ug/l	100
79) 2-Chlorotoluene	12.682	91	366017	47.609	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	439469	48.538	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	32102	48.545	ug/l	98
82) 4-Chlorotoluene	12.780	91	381031	47.811	ug/l	100
83) tert-Butylbenzene	12.999	119	389054	47.569	ug/l	100
84) 1,2,4-Trimethylbenzene	13.042	105	438264	48.670	ug/l	99
85) sec-Butylbenzene	13.176	105	563465	47.165	ug/l	100
86) p-Isopropyltoluene	13.292	119	475557	47.673	ug/l	100
87) 1,3-Dichlorobenzene	13.292	146	238997	47.054	ug/l	99
88) 1,4-Dichlorobenzene	13.371	146	234683	46.771	ug/l	100
89) n-Butylbenzene	13.621	91	447227	47.641	ug/l	100
90) Hexachloroethane	13.883	117	95176	45.677	ug/l	98
91) 1,2-Dichlorobenzene	13.664	146	212743	47.806	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.279	75	14541	47.180	ug/l	98
93) 1,2,4-Trichlorobenzene	14.926	180	127990	47.123	ug/l	99
94) Hexachlorobutadiene	15.029	225	76423	44.693	ug/l	100
95) Naphthalene	15.145	128	219783	48.854	ug/l	99
96) 1,2,3-Trichlorobenzene	15.334	180	108446	47.257	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021346.D
Acq On : 27 Feb 2025 10:13
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 :Mahesh Dadoda 02/28/2025
Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:39:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

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

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

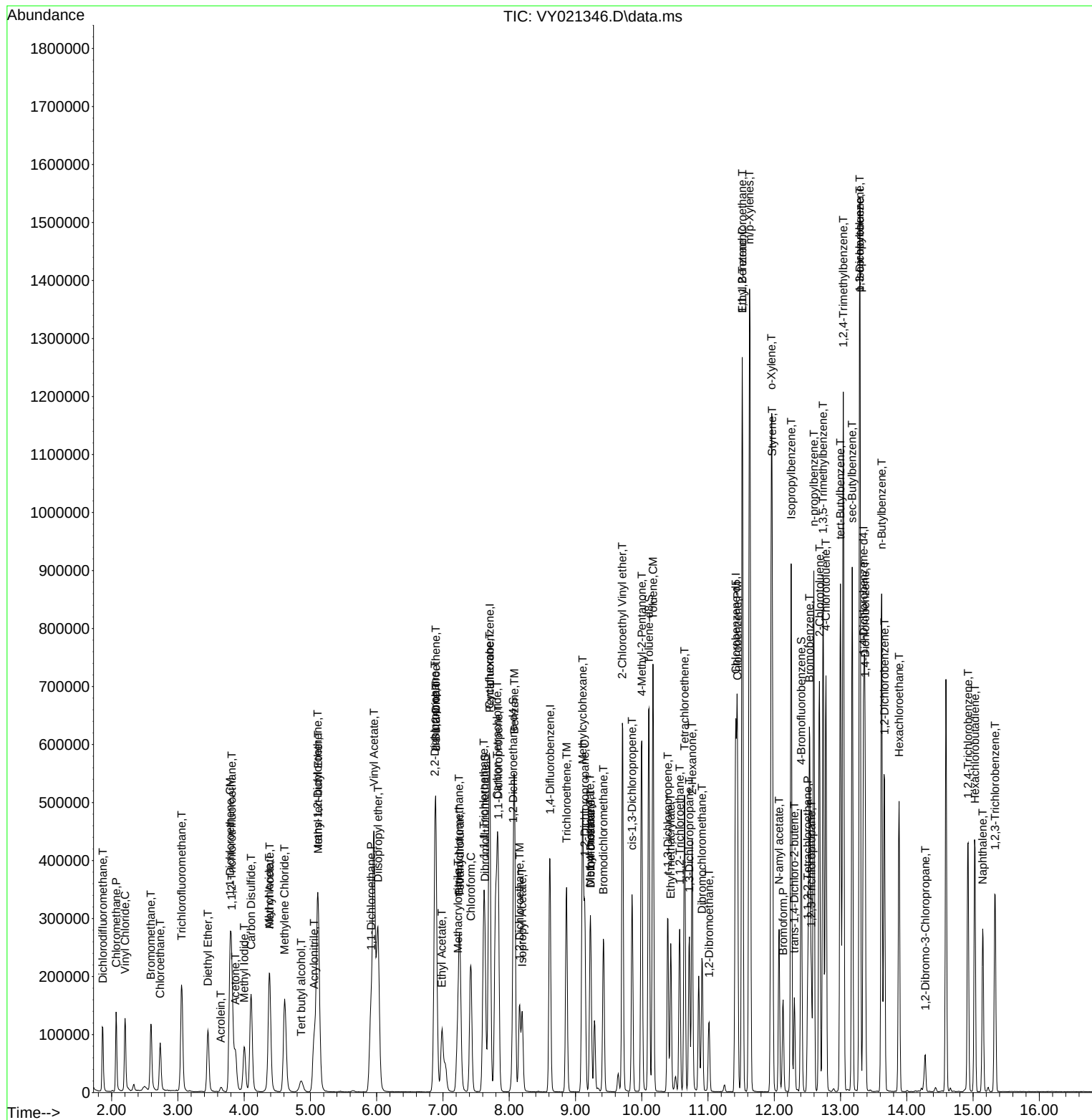
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021346.D
Acq On : 27 Feb 2025 10:13
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/28/2025
Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:39:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
 Data File : VY021346.D
 Acq On : 27 Feb 2025 10:13
 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: Feb 28 00:39:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	124	0.00
2 T	Dichlorodifluoromethane	0.474	0.413	12.9	104	0.00
3 P	Chloromethane	0.612	0.531	13.2	109	0.00
4 C	Vinyl Chloride	0.601	0.554	7.8#	109	0.00
5 T	Bromomethane	0.399	0.355	11.0	113	0.00
6 T	Chloroethane	0.373	0.354	5.1	112	0.00
7 T	Trichlorofluoromethane	0.908	0.857	5.6	113	0.00
8 T	Diethyl Ether	0.272	0.265	2.6	115	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.525	0.483	8.0	111	0.00
10 T	Methyl Iodide	0.553	0.569	-2.9	110	0.00
11 T	Tert butyl alcohol	0.044	0.035	20.5	109	0.00
12 CM	1,1-Dichloroethene	0.503	0.467	7.2#	112	0.00
13 T	Acrolein	0.033	0.008	75.8#	152#	0.00
14 T	Allyl chloride	0.892	0.818	8.3	109	0.00
15 T	Acrylonitrile	0.120	0.113	5.8	110	0.00
16 T	Acetone	0.109	0.108	0.9	104	0.00
17 T	Carbon Disulfide	1.671	1.540	7.8	110	0.00
18 T	Methyl Acetate	0.266	0.254	4.5	114	0.00
19 T	Methyl tert-butyl Ether	1.329	1.304	1.9	114	0.00
20 T	Methylene Chloride	0.588	0.523	11.1	111	0.00
21 T	trans-1,2-Dichloroethene	0.554	0.533	3.8	115	0.00
22 T	Diisopropyl ether	1.846	1.743	5.6	110	0.00
23 T	Vinyl Acetate	1.103	1.056	4.3	110	0.00
24 P	1,1-Dichloroethane	1.040	0.977	6.1	112	0.00
25 T	2-Butanone	0.164	0.156	4.9	105	0.00
26 T	2,2-Dichloropropane	0.944	0.876	7.2	111	0.00
27 T	cis-1,2-Dichloroethene	0.632	0.615	2.7	114	0.00
28 T	Bromochloromethane	0.460	0.454	1.3	123	0.00
29 T	Tetrahydrofuran	0.107	0.101	5.6	109	0.00
30 C	Chloroform	1.054	0.999	5.2#	113	0.00
31 T	Cyclohexane	1.000	0.858	14.2	107	0.00
32 T	1,1,1-Trichloroethane	0.960	0.904	5.8	113	0.00
33 S	1,2-Dichloroethane-d4	0.567	0.558	1.6	125	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	124	0.00
35 S	Dibromofluoromethane	0.328	0.334	-1.8	127	0.00
36 T	1,1-Dichloropropene	0.492	0.461	6.3	110	0.00
37 T	Ethyl Acetate	0.245	0.228	6.9	110	0.00
38 T	Carbon Tetrachloride	0.554	0.524	5.4	112	0.00
39 T	Methylcyclohexane	0.623	0.568	8.8	106	0.00
40 TM	Benzene	1.456	1.381	5.2	111	0.00
41 T	Methacrylonitrile	0.137	0.123	10.2	103	0.00
42 TM	1,2-Dichloroethane	0.413	0.403	2.4	115	0.00
43 T	Isopropyl Acetate	0.474	0.447	5.7	108	0.00
44 TM	Trichloroethene	0.364	0.350	3.8	113	0.00
45 C	1,2-Dichloropropane	0.350	0.331	5.4#	110	0.00
46 T	Dibromomethane	0.191	0.187	2.1	114	0.00
47 T	Bromodichloromethane	0.511	0.501	2.0	114	0.00
48 T	Methyl methacrylate	0.222	0.211	5.0	105	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
 Data File : VY021346.D
 Acq On : 27 Feb 2025 10:13
 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: Feb 28 00:39:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	122	0.00
50 S	Toluene-d8	1.267	1.261	0.5	124	0.00
51 T	4-Methyl-2-Pentanone	0.243	0.236	2.9	109	0.00
52 CM	Toluene	0.904	0.878	2.9#	112	0.00
53 T	t-1,3-Dichloropropene	0.468	0.463	1.1	111	0.00
54 T	cis-1,3-Dichloropropene	0.552	0.535	3.1	112	0.00
55 T	1,1,2-Trichloroethane	0.249	0.238	4.4	110	0.00
56 T	Ethyl methacrylate	0.345	0.352	-2.0	111	0.00
57 T	1,3-Dichloropropane	0.438	0.426	2.7	112	0.00
58 T	2-Chloroethyl Vinyl ether	0.165	0.160	3.0	103	0.00
59 T	2-Hexanone	0.159	0.157	1.3	106	0.00
60 T	Dibromochloromethane	0.340	0.334	1.8	112	0.00
61 T	1,2-Dibromoethane	0.236	0.228	3.4	111	0.00
62 S	4-Bromofluorobenzene	0.426	0.425	0.2	124	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	124	0.00
64 T	Tetrachloroethene	0.378	0.347	8.2	111	0.00
65 PM	Chlorobenzene	1.122	1.069	4.7	113	0.00
66 T	1,1,1,2-Tetrachloroethane	0.393	0.376	4.3	113	0.00
67 C	Ethyl Benzene	1.988	1.908	4.0#	111	0.00
68 T	m/p-Xylenes	0.748	0.712	4.8	110	0.00
69 T	o-Xylene	0.701	0.674	3.9	111	0.00
70 T	Styrene	1.166	1.136	2.6	111	0.00
71 P	Bromoform	0.225	0.221	1.8	112	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	121	0.00
73 T	Isopropylbenzene	3.759	3.639	3.2	110	0.00
74 T	N-amyl acetate	0.955	0.939	1.7	107	0.00
75 P	1,1,2,2-Tetrachloroethane	0.663	0.638	3.8	110	0.00
76 T	1,2,3-Trichloropropane	0.500	0.485	3.0	112	0.00
77 T	Bromobenzene	0.874	0.847	3.1	113	0.00
78 T	n-propylbenzene	4.561	4.382	3.9	109	0.00
79 T	2-Chlorotoluene	2.618	2.493	4.8	111	0.00
80 T	1,3,5-Trimethylbenzene	3.083	2.993	2.9	111	0.00
81 T	trans-1,4-Dichloro-2-butene	0.225	0.219	2.7	108	0.00
82 T	4-Chlorotoluene	2.714	2.595	4.4	111	0.00
83 T	tert-Butylbenzene	2.785	2.649	4.9	111	0.00
84 T	1,2,4-Trimethylbenzene	3.066	2.985	2.6	111	0.00
85 T	sec-Butylbenzene	4.068	3.837	5.7	109	0.00
86 T	p-Isopropyltoluene	3.397	3.239	4.7	109	0.00
87 T	1,3-Dichlorobenzene	1.730	1.628	5.9	110	0.00
88 T	1,4-Dichlorobenzene	1.709	1.598	6.5	110	0.00
89 T	n-Butylbenzene	3.196	3.046	4.7	107	0.00
90 T	Hexachloroethane	0.710	0.648	8.7	108	0.00
91 T	1,2-Dichlorobenzene	1.515	1.449	4.4	111	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.105	0.099	5.7	106	0.00
93 T	1,2,4-Trichlorobenzene	0.925	0.872	5.7	109	0.00
94 T	Hexachlorobutadiene	0.582	0.520	10.7	106	0.00
95 T	Naphthalene	1.532	1.497	2.3	105	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021346.D
Acq On : 27 Feb 2025 10:13
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: Feb 28 00:39:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 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	0.781	0.739	5.4	108	0.00

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
 Data File : VY021346.D
 Acq On : 27 Feb 2025 10:13
 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: Feb 28 00:39:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	124	0.00
2 T	Dichlorodifluoromethane	50.000	43.510	13.0	104	0.00
3 P	Chloromethane	50.000	43.398	13.2	109	0.00
4 C	Vinyl Chloride	50.000	46.080	7.8#	109	0.00
5 T	Bromomethane	50.000	44.421	11.2	113	0.00
6 T	Chloroethane	50.000	47.433	5.1	112	0.00
7 T	Trichlorofluoromethane	50.000	47.198	5.6	113	0.00
8 T	Diethyl Ether	50.000	48.685	2.6	115	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	46.008	8.0	111	0.00
10 T	Methyl Iodide	50.000	51.435	-2.9	110	0.00
11 T	Tert butyl alcohol	250.000	202.609	19.0	109	0.00
12 CM	1,1-Dichloroethene	50.000	46.418	7.2#	112	0.00
13 T	Acrolein	250.000	61.335	75.5#	152	0.00
14 T	Allyl chloride	50.000	45.858	8.3	109	0.00
15 T	Acrylonitrile	250.000	234.709	6.1	110	0.00
16 T	Acetone	250.000	247.053	1.2	104	0.00
17 T	Carbon Disulfide	50.000	46.099	7.8	110	0.00
18 T	Methyl Acetate	50.000	47.708	4.6	114	0.00
19 T	Methyl tert-butyl Ether	50.000	49.066	1.9	114	0.00
20 T	Methylene Chloride	50.000	44.466	11.1	111	0.00
21 T	trans-1,2-Dichloroethene	50.000	48.151	3.7	115	0.00
22 T	Diisopropyl ether	50.000	47.204	5.6	110	0.00
23 T	Vinyl Acetate	250.000	239.240	4.3	110	0.00
24 P	1,1-Dichloroethane	50.000	46.976	6.0	112	0.00
25 T	2-Butanone	250.000	237.086	5.2	105	0.00
26 T	2,2-Dichloropropane	50.000	46.413	7.2	111	0.00
27 T	cis-1,2-Dichloroethene	50.000	48.604	2.8	114	0.00
28 T	Bromochloromethane	50.000	49.278	1.4	123	0.00
29 T	Tetrahydrofuran	250.000	235.247	5.9	109	0.00
30 C	Chloroform	50.000	47.377	5.2#	113	0.00
31 T	Cyclohexane	50.000	42.885	14.2	107	0.00
32 T	1,1,1-Trichloroethane	50.000	47.106	5.8	113	0.00
33 S	1,2-Dichloroethane-d4	50.000	49.197	1.6	125	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	124	0.00
35 S	Dibromofluoromethane	50.000	50.916	-1.8	127	0.00
36 T	1,1-Dichloropropene	50.000	46.810	6.4	110	0.00
37 T	Ethyl Acetate	50.000	46.614	6.8	110	0.00
38 T	Carbon Tetrachloride	50.000	47.372	5.3	112	0.00
39 T	Methylcyclohexane	50.000	45.621	8.8	106	0.00
40 TM	Benzene	50.000	47.451	5.1	111	0.00
41 T	Methacrylonitrile	50.000	44.764	10.5	103	0.00
42 TM	1,2-Dichloroethane	50.000	48.834	2.3	115	0.00
43 T	Isopropyl Acetate	50.000	47.110	5.8	108	0.00
44 TM	Trichloroethene	50.000	47.977	4.0	113	0.00
45 C	1,2-Dichloropropane	50.000	47.258	5.5#	110	0.00
46 T	Dibromomethane	50.000	48.866	2.3	114	0.00
47 T	Bromodichloromethane	50.000	49.049	1.9	114	0.00
48 T	Methyl methacrylate	50.000	47.548	4.9	105	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
 Data File : VY021346.D
 Acq On : 27 Feb 2025 10:13
 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: Feb 28 00:39:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	1034.825	-3.5	122	0.00
50 S	Toluene-d8	50.000	49.758	0.5	124	0.00
51 T	4-Methyl-2-Pentanone	250.000	243.033	2.8	109	0.00
52 CM	Toluene	50.000	48.531	2.9#	112	0.00
53 T	t-1,3-Dichloropropene	50.000	49.509	1.0	111	0.00
54 T	cis-1,3-Dichloropropene	50.000	48.471	3.1	112	0.00
55 T	1,1,2-Trichloroethane	50.000	47.760	4.5	110	0.00
56 T	Ethyl methacrylate	50.000	51.042	-2.1	111	0.00
57 T	1,3-Dichloropropane	50.000	48.674	2.7	112	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	241.429	3.4	103	0.00
59 T	2-Hexanone	250.000	246.484	1.4	106	0.00
60 T	Dibromochloromethane	50.000	49.151	1.7	112	0.00
61 T	1,2-Dibromoethane	50.000	48.188	3.6	111	0.00
62 S	4-Bromofluorobenzene	50.000	49.803	0.4	124	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	124	0.00
64 T	Tetrachloroethene	50.000	45.972	8.1	111	0.00
65 PM	Chlorobenzene	50.000	47.611	4.8	113	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	47.843	4.3	113	0.00
67 C	Ethyl Benzene	50.000	47.994	4.0#	111	0.00
68 T	m/p-Xylenes	100.000	95.197	4.8	110	0.00
69 T	o-Xylene	50.000	48.118	3.8	111	0.00
70 T	Styrene	50.000	48.749	2.5	111	0.00
71 P	Bromoform	50.000	49.136	1.7	112	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	121	0.00
73 T	Isopropylbenzene	50.000	48.407	3.2	110	0.00
74 T	N-amyl acetate	50.000	49.139	1.7	107	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	48.104	3.8	110	0.00
76 T	1,2,3-Trichloropropane	50.000	48.501	3.0	112	0.00
77 T	Bromobenzene	50.000	48.465	3.1	113	0.00
78 T	n-propylbenzene	50.000	48.033	3.9	109	0.00
79 T	2-Chlorotoluene	50.000	47.609	4.8	111	0.00
80 T	1,3,5-Trimethylbenzene	50.000	48.538	2.9	111	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	48.545	2.9	108	0.00
82 T	4-Chlorotoluene	50.000	47.811	4.4	111	0.00
83 T	tert-Butylbenzene	50.000	47.569	4.9	111	0.00
84 T	1,2,4-Trimethylbenzene	50.000	48.670	2.7	111	0.00
85 T	sec-Butylbenzene	50.000	47.165	5.7	109	0.00
86 T	p-Isopropyltoluene	50.000	47.673	4.7	109	0.00
87 T	1,3-Dichlorobenzene	50.000	47.054	5.9	110	0.00
88 T	1,4-Dichlorobenzene	50.000	46.771	6.5	110	0.00
89 T	n-Butylbenzene	50.000	47.641	4.7	107	0.00
90 T	Hexachloroethane	50.000	45.677	8.6	108	0.00
91 T	1,2-Dichlorobenzene	50.000	47.806	4.4	111	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	47.180	5.6	106	0.00
93 T	1,2,4-Trichlorobenzene	50.000	47.123	5.8	109	0.00
94 T	Hexachlorobutadiene	50.000	44.693	10.6	106	0.00
95 T	Naphthalene	50.000	48.854	2.3	105	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021346.D
Acq On : 27 Feb 2025 10:13
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: Feb 28 00:39:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 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	47.257	5.5	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: CHEMTECH Contract: GENV01

Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448

Instrument ID: MSVOA_Y Calibration Date/Time: 02/28/2025 09:44

Lab File ID: VY021375.D Init. Calib. Date(s): 02/25/2025 02/25/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:40 16:49

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.612	0.566	0.1	-7.52	20
Vinyl Chloride	0.601	0.616		2.5	20
Bromomethane	0.399	0.411		3.01	20
Chloroethane	0.373	0.400		7.24	20
Tert butyl alcohol	0.044	0.033		-25	20
1,1-Dichloroethene	0.503	0.487		-3.18	20
Acetone	0.109	0.132		21.1	20
Carbon Disulfide	1.671	1.585		-5.15	20
Methyl tert-butyl Ether	1.329	1.304		-1.88	20
Methylene Chloride	0.588	0.547		-6.97	20
trans-1,2-Dichloroethene	0.554	0.549		-0.9	20
1,1-Dichloroethane	1.040	1.009	0.1	-2.98	20
2-Butanone	0.164	0.166		1.22	20
Carbon Tetrachloride	0.554	0.578		4.33	20
cis-1,2-Dichloroethene	0.632	0.635		0.47	20
Chloroform	1.054	1.043		-1.04	20
1,1,1-Trichloroethane	0.960	0.951		-0.94	20
Benzene	1.456	1.487		2.13	20
1,2-Dichloroethane	0.413	0.436		5.57	20
Trichloroethene	0.364	0.375		3.02	20
1,2-Dichloropropane	0.350	0.356		1.71	20
Bromodichloromethane	0.511	0.537		5.09	20
4-Methyl-2-Pentanone	0.243	0.242		-0.41	20
Toluene	0.904	0.955		5.64	20
t-1,3-Dichloropropene	0.468	0.488		4.27	20
cis-1,3-Dichloropropene	0.552	0.565		2.36	20
1,1,2-Trichloroethane	0.249	0.254		2.01	20
2-Hexanone	0.159	0.168		5.66	20
Dibromochloromethane	0.340	0.362		6.47	20
Tetrachloroethene	0.378	0.394		4.23	20
Chlorobenzene	1.122	1.154	0.3	2.85	20
Ethyl Benzene	1.988	2.041		2.67	20
m/p-Xylenes	0.748	0.775		3.61	20
o-Xylene	0.701	0.722		3	20
Styrene	1.166	1.235		5.92	20
Bromoform	0.225	0.232	0.1	3.11	20
1,1,2,2-Tetrachloroethane	0.663	0.654	0.3	-1.36	20
1,2-Dichloroethane-d4	0.567	0.567		0	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: CHEMTECH Contract: GENV01

Lab Code: CHEM Case No.: Q1448 SAS No.: Q1448 SDG No.: Q1448

Instrument ID: MSVOA_Y Calibration Date/Time: 02/28/2025 09:44

Lab File ID: VY021375.D Init. Calib. Date(s): 02/25/2025 02/25/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:40 16:49

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dibromofluoromethane	0.328	0.351		7.01	20
Toluene-d8	1.267	1.327		4.74	20
4-Bromofluorobenzene	0.426	0.441		3.52	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\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 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 03/03/2025
 Supervised By : Mahesh Dadoda 03/03/2025

Quant Time: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	170466	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	255493	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	227302	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	113605	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	96586	49.947	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	99.900%		
35) Dibromofluoromethane	7.634	113	89708	53.556	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	107.120%		
50) Toluene-d8	10.109	98	339126	52.386	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	104.780%		
62) 4-Bromofluorobenzene	12.408	95	112745	51.750	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	103.500%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.867	85	75054	46.438	ug/l	96
3) Chloromethane	2.074	50	96481	46.223	ug/l	98
4) Vinyl Chloride	2.208	62	105085	51.293	ug/l	97
5) Bromomethane	2.598	94	70059	51.460	ug/l	98
6) Chloroethane	2.739	64	68130	53.626	ug/l	98
7) Trichlorofluoromethane	3.062	101	159574	51.575	ug/l	98
8) Diethyl Ether	3.458	74	45896	49.423	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.818	101	87137	48.644	ug/l	99
10) Methyl Iodide	4.007	142	102242	54.252	ug/l	100
11) Tert butyl alcohol	4.860	59	28013	188.331	ug/l	99
12) 1,1-Dichloroethene	3.793	96	82975	48.376	ug/l	96
13) Acrolein	3.647	56	5316	46.638	ug/l	96
14) Allyl chloride	4.391	41	138693	45.608	ug/l	95
15) Acrylonitrile	5.061	53	96955	236.139	ug/l	99
16) Acetone	3.867	43	112372	302.934	ug/l	100
17) Carbon Disulfide	4.110	76	270242	47.448	ug/l	99
18) Methyl Acetate	4.385	43	42108	46.449	ug/l	94
19) Methyl tert-butyl Ether	5.116	73	222369	49.070	ug/l	98
20) Methylene Chloride	4.622	84	93282	46.504	ug/l	96
21) trans-1,2-Dichloroethene	5.116	96	93555	49.547	ug/l	93
22) Diisopropyl ether	6.019	45	301755	47.952	ug/l	99
23) Vinyl Acetate	5.964	43	896702	238.456	ug/l	100
24) 1,1-Dichloroethane	5.915	63	171936	48.476	ug/l	99
25) 2-Butanone	6.896	43	141900	253.463	ug/l	94
26) 2,2-Dichloropropane	6.890	77	157120	48.821	ug/l	99
27) cis-1,2-Dichloroethene	6.890	96	108215	50.189	ug/l	98
28) Bromochloromethane	7.244	49	78777	50.196	ug/l	97
29) Tetrahydrofuran	7.262	42	83194	227.342	ug/l	97
30) Chloroform	7.421	83	177778	49.466	ug/l	100
31) Cyclohexane	7.707	56	147922	43.387	ug/l	98
32) 1,1,1-Trichloroethane	7.616	97	162031	49.532	ug/l	99
36) 1,1-Dichloropropene	7.835	75	127843	50.810	ug/l	99
37) Ethyl Acetate	6.982	43	59548	47.578	ug/l	100
38) Carbon Tetrachloride	7.817	117	147719	52.223	ug/l	99
39) Methylcyclohexane	9.109	83	155039	48.718	ug/l	99
40) Benzene	8.079	78	379868	51.073	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 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 03/03/2025
 Supervised By : Mahesh Dadoda 03/03/2025

Quant Time: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.220	41	34886	49.854	ug/l	97
42) 1,2-Dichloroethane	8.158	62	111336	52.760	ug/l	100
43) Isopropyl Acetate	8.201	43	117081	48.330	ug/l #	86
44) Trichloroethene	8.866	130	95880	51.489	ug/l	99
45) 1,2-Dichloropropane	9.146	63	90953	50.814	ug/l	99
46) Dibromomethane	9.231	93	50657	51.775	ug/l	98
47) Bromodichloromethane	9.426	83	137097	52.552	ug/l	97
48) Methyl methacrylate	9.225	41	55255	48.776	ug/l	94
49) 1,4-Dioxane	9.231	88	10744	987.591	ug/l	91
51) 4-Methyl-2-Pentanone	10.000	43	309430	249.526	ug/l	100
52) Toluene	10.170	92	243944	52.795	ug/l	99
53) t-1,3-Dichloropropene	10.396	75	124583	52.124	ug/l	98
54) cis-1,3-Dichloropropene	9.859	75	144293	51.138	ug/l	98
55) 1,1,2-Trichloroethane	10.573	97	64837	50.869	ug/l	97
56) Ethyl methacrylate	10.445	69	91017	51.680	ug/l	99
57) 1,3-Dichloropropane	10.719	76	115030	51.430	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.713	63	218026	257.917	ug/l	98
59) 2-Hexanone	10.762	43	214799	263.746	ug/l	99
60) Dibromochloromethane	10.914	129	92375	53.214	ug/l	100
61) 1,2-Dibromoethane	11.018	107	61490	50.958	ug/l	98
64) Tetrachloroethene	10.646	164	89648	52.180	ug/l	95
65) Chlorobenzene	11.444	112	262227	51.394	ug/l	97
66) 1,1,1,2-Tetrachloroethane	11.518	131	93678	52.434	ug/l	99
67) Ethyl Benzene	11.524	91	463868	51.326	ug/l	100
68) m/p-Xylenes	11.633	106	352476	103.688	ug/l	100
69) o-Xylene	11.957	106	164095	51.528	ug/l	99
70) Styrene	11.975	104	280622	52.962	ug/l	99
71) Bromoform	12.133	173	52761	51.622	ug/l #	98
73) Isopropylbenzene	12.255	105	438599	51.354	ug/l	99
74) N-amyl acetate	12.072	43	105812	48.742	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	74349	49.325	ug/l	98
76) 1,2,3-Trichloropropane	12.560	75	48460m	42.616	ug/l	
77) Bromobenzene	12.536	156	103195	51.947	ug/l	95
78) n-propylbenzene	12.597	91	526975	50.847	ug/l	99
79) 2-Chlorotoluene	12.682	91	298498	50.185	ug/l	99
80) 1,3,5-Trimethylbenzene	12.737	105	357472	51.032	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	24043	46.995	ug/l	93
82) 4-Chlorotoluene	12.780	91	306178	49.658	ug/l	99
83) tert-Butylbenzene	12.999	119	314049	49.632	ug/l	99
84) 1,2,4-Trimethylbenzene	13.048	105	354550	50.892	ug/l	99
85) sec-Butylbenzene	13.176	105	460459	49.819	ug/l	100
86) p-Isopropyltoluene	13.292	119	389522	50.472	ug/l	100
87) 1,3-Dichlorobenzene	13.292	146	201633	51.311	ug/l	99
88) 1,4-Dichlorobenzene	13.371	146	194197	50.025	ug/l	100
89) n-Butylbenzene	13.621	91	364238	50.152	ug/l	99
90) Hexachloroethane	13.883	117	78439	48.657	ug/l	98
91) 1,2-Dichlorobenzene	13.664	146	173292	50.334	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.279	75	11525	48.334	ug/l	95
93) 1,2,4-Trichlorobenzene	14.926	180	101991	48.537	ug/l	99
94) Hexachlorobutadiene	15.029	225	65020	49.149	ug/l	99
95) Naphthalene	15.151	128	168433	48.393	ug/l	99
96) 1,2,3-Trichlorobenzene	15.334	180	83821	47.212	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021375.D
Acq On : 28 Feb 2025 09:44
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 03/03/2025
Supervised By : Mahesh Dadoda 03/03/2025

Quant Time: Feb 28 22:17:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

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

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

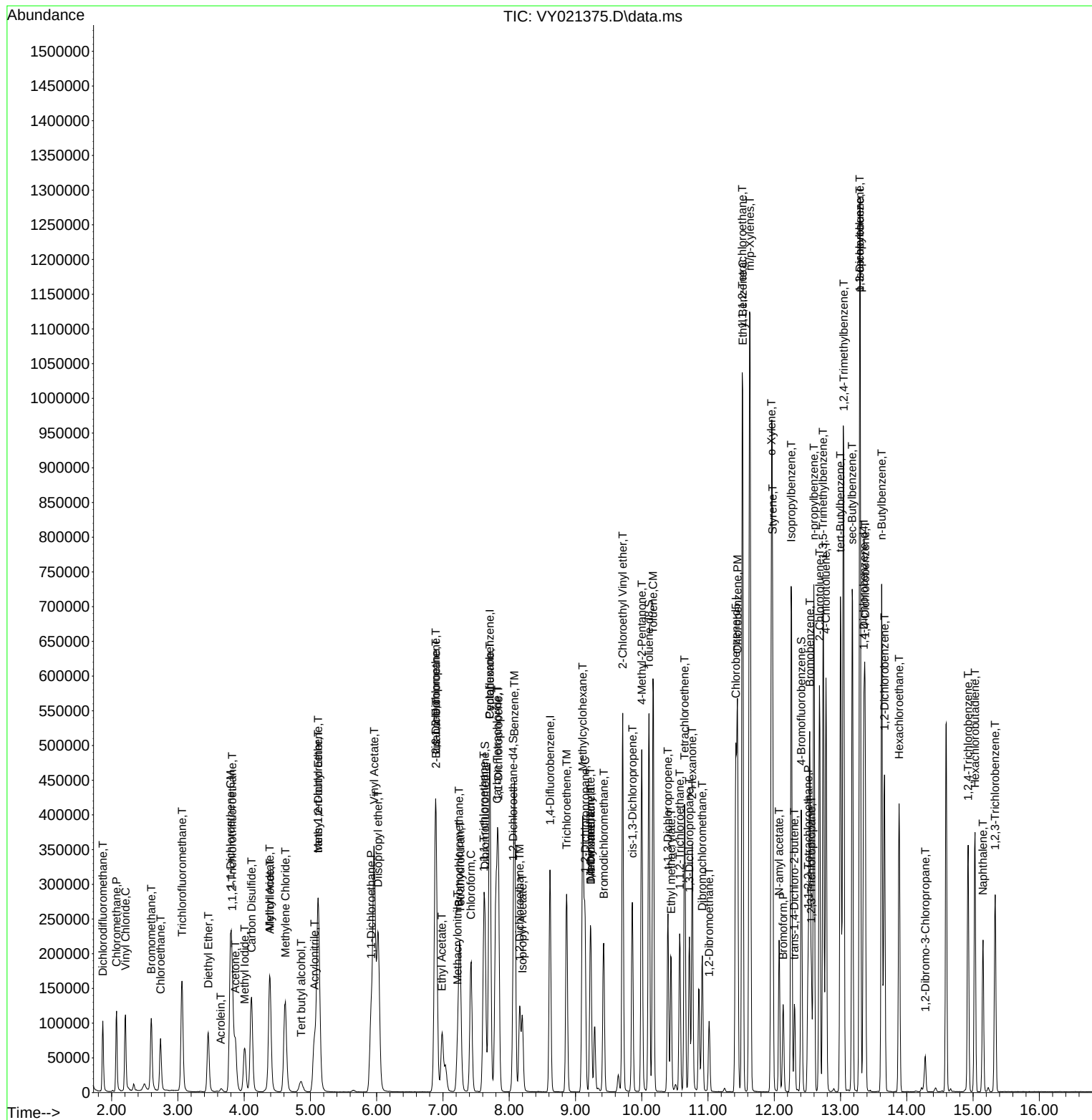
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDCCC050

Manual Integrations APPROVED

Reviewed By : John Carlone 03/03/2025
 Supervised By : Mahesh Dadoda 03/03/2025

Quant Time: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 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: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	0.474	0.440	7.2	87	0.00
3 P	Chloromethane	0.612	0.566	7.5	91	0.00
4 C	Vinyl Chloride	0.601	0.616	-2.5#	96	0.00
5 T	Bromomethane	0.399	0.411	-3.0	103	0.00
6 T	Chloroethane	0.373	0.400	-7.2	100	0.00
7 T	Trichlorofluoromethane	0.908	0.936	-3.1	97	0.00
8 T	Diethyl Ether	0.272	0.269	1.1	91	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.525	0.511	2.7	93	0.00
10 T	Methyl Iodide	0.553	0.600	-8.5	92	0.00
11 T	Tert butyl alcohol	0.044	0.033	25.0	79	0.00
12 CM	1,1-Dichloroethene	0.503	0.487	3.2#	92	0.00
13 T	Acrolein	0.033	0.006	81.8#	91	0.00
14 T	Allyl chloride	0.892	0.814	8.7	85	0.00
15 T	Acrylonitrile	0.120	0.114	5.0	87	0.00
16 T	Acetone	0.109	0.132	-21.1	100	0.00
17 T	Carbon Disulfide	1.671	1.585	5.1	89	0.00
18 T	Methyl Acetate	0.266	0.247	7.1	87	0.00
19 T	Methyl tert-butyl Ether	1.329	1.304	1.9	90	0.00
20 T	Methylene Chloride	0.588	0.547	7.0	91	0.01
21 T	trans-1,2-Dichloroethene	0.554	0.549	0.9	93	0.00
22 T	Diisopropyl ether	1.846	1.770	4.1	88	0.00
23 T	Vinyl Acetate	1.103	1.052	4.6	86	0.00
24 P	1,1-Dichloroethane	1.040	1.009	3.0	91	0.00
25 T	2-Butanone	0.164	0.166	-1.2	89	0.00
26 T	2,2-Dichloropropane	0.944	0.922	2.3	92	0.00
27 T	cis-1,2-Dichloroethene	0.632	0.635	-0.5	93	0.00
28 T	Bromochloromethane	0.460	0.462	-0.4	99	0.00
29 T	Tetrahydrofuran	0.107	0.098	8.4	83	0.00
30 C	Chloroform	1.054	1.043	1.0#	93	0.00
31 T	Cyclohexane	1.000	0.868	13.2	85	0.00
32 T	1,1,1-Trichloroethane	0.960	0.951	0.9	94	0.00
33 S	1,2-Dichloroethane-d4	0.567	0.567	0.0	100	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00
35 S	Dibromofluoromethane	0.328	0.351	-7.0	101	0.00
36 T	1,1-Dichloropropene	0.492	0.500	-1.6	91	0.00
37 T	Ethyl Acetate	0.245	0.233	4.9	85	0.00
38 T	Carbon Tetrachloride	0.554	0.578	-4.3	93	0.00
39 T	Methylcyclohexane	0.623	0.607	2.6	86	0.00
40 TM	Benzene	1.456	1.487	-2.1	91	0.00
41 T	Methacrylonitrile	0.137	0.137	0.0	87	0.00
42 TM	1,2-Dichloroethane	0.413	0.436	-5.6	94	0.00
43 T	Isopropyl Acetate	0.474	0.458	3.4	84	0.00
44 TM	Trichloroethene	0.364	0.375	-3.0	92	0.00
45 C	1,2-Dichloropropane	0.350	0.356	-1.7#	90	0.00
46 T	Dibromomethane	0.191	0.198	-3.7	91	0.00
47 T	Bromodichloromethane	0.511	0.537	-5.1	93	0.00
48 T	Methyl methacrylate	0.222	0.216	2.7	82	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 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: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	88	0.00
50 S	Toluene-d8	1.267	1.327	-4.7	99	0.00
51 T	4-Methyl-2-Pentanone	0.243	0.242	0.4	85	0.00
52 CM	Toluene	0.904	0.955	-5.6#	93	0.00
53 T	t-1,3-Dichloropropene	0.468	0.488	-4.3	89	0.00
54 T	cis-1,3-Dichloropropene	0.552	0.565	-2.4	90	0.00
55 T	1,1,2-Trichloroethane	0.249	0.254	-2.0	89	0.00
56 T	Ethyl methacrylate	0.345	0.356	-3.2	85	0.00
57 T	1,3-Dichloropropane	0.438	0.450	-2.7	90	0.00
58 T	2-Chloroethyl Vinyl ether	0.165	0.171	-3.6	84	0.00
59 T	2-Hexanone	0.159	0.168	-5.7	86	0.00
60 T	Dibromochloromethane	0.340	0.362	-6.5	92	0.00
61 T	1,2-Dibromoethane	0.236	0.241	-2.1	89	0.00
62 S	4-Bromofluorobenzene	0.426	0.441	-3.5	98	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
64 T	Tetrachloroethene	0.378	0.394	-4.2	96	0.00
65 PM	Chlorobenzene	1.122	1.154	-2.9	93	0.00
66 T	1,1,1,2-Tetrachloroethane	0.393	0.412	-4.8	94	0.00
67 C	Ethyl Benzene	1.988	2.041	-2.7#	91	0.00
68 T	m/p-Xylenes	0.748	0.775	-3.6	92	0.00
69 T	o-Xylene	0.701	0.722	-3.0	90	0.00
70 T	Styrene	1.166	1.235	-5.9	92	0.00
71 P	Bromoform	0.225	0.232	-3.1	90	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
73 T	Isopropylbenzene	3.759	3.861	-2.7	91	0.00
74 T	N-amyl acetate	0.955	0.931	2.5	82	0.00
75 P	1,1,2,2-Tetrachloroethane	0.663	0.654	1.4	88	0.00
76 T	1,2,3-Trichloropropane	0.500	0.427	14.6	76	0.00
77 T	Bromobenzene	0.874	0.908	-3.9	93	0.00
78 T	n-propylbenzene	4.561	4.639	-1.7	90	0.00
79 T	2-Chlorotoluene	2.618	2.628	-0.4	90	0.00
80 T	1,3,5-Trimethylbenzene	3.083	3.147	-2.1	90	0.00
81 T	trans-1,4-Dichloro-2-butene	0.225	0.212	5.8	81	0.00
82 T	4-Chlorotoluene	2.714	2.695	0.7	89	0.00
83 T	tert-Butylbenzene	2.785	2.764	0.8	89	0.00
84 T	1,2,4-Trimethylbenzene	3.066	3.121	-1.8	90	0.00
85 T	sec-Butylbenzene	4.068	4.053	0.4	89	0.00
86 T	p-Isopropyltoluene	3.397	3.429	-0.9	89	0.00
87 T	1,3-Dichlorobenzene	1.730	1.775	-2.6	92	0.00
88 T	1,4-Dichlorobenzene	1.709	1.709	0.0	91	0.00
89 T	n-Butylbenzene	3.196	3.206	-0.3	87	0.00
90 T	Hexachloroethane	0.710	0.690	2.8	89	0.00
91 T	1,2-Dichlorobenzene	1.515	1.525	-0.7	90	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.105	0.101	3.8	84	0.00
93 T	1,2,4-Trichlorobenzene	0.925	0.898	2.9	87	0.00
94 T	Hexachlorobutadiene	0.582	0.572	1.7	90	0.00
95 T	Naphthalene	1.532	1.483	3.2	80	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021375.D
Acq On : 28 Feb 2025 09:44
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: Feb 28 22:17:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 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	0.781	0.738	5.5	84	0.00

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 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: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	46.438	7.1	87	0.00
3 P	Chloromethane	50.000	46.223	7.6	91	0.00
4 C	Vinyl Chloride	50.000	51.293	-2.6#	96	0.00
5 T	Bromomethane	50.000	51.460	-2.9	103	0.00
6 T	Chloroethane	50.000	53.626	-7.3	100	0.00
7 T	Trichlorofluoromethane	50.000	51.575	-3.2	97	0.00
8 T	Diethyl Ether	50.000	49.423	1.2	91	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	48.644	2.7	93	0.00
10 T	Methyl Iodide	50.000	54.252	-8.5	92	0.00
11 T	Tert butyl alcohol	250.000	188.331	24.7	79	0.00
12 CM	1,1-Dichloroethene	50.000	48.376	3.2#	92	0.00
13 T	Acrolein	250.000	46.638	81.3#	91	0.00
14 T	Allyl chloride	50.000	45.608	8.8	85	0.00
15 T	Acrylonitrile	250.000	236.139	5.5	87	0.00
16 T	Acetone	250.000	302.934	-21.2	100	0.00
17 T	Carbon Disulfide	50.000	47.448	5.1	89	0.00
18 T	Methyl Acetate	50.000	46.449	7.1	87	0.00
19 T	Methyl tert-butyl Ether	50.000	49.070	1.9	90	0.00
20 T	Methylene Chloride	50.000	46.504	7.0	91	0.01
21 T	trans-1,2-Dichloroethene	50.000	49.547	0.9	93	0.00
22 T	Diisopropyl ether	50.000	47.952	4.1	88	0.00
23 T	Vinyl Acetate	250.000	238.456	4.6	86	0.00
24 P	1,1-Dichloroethane	50.000	48.476	3.0	91	0.00
25 T	2-Butanone	250.000	253.463	-1.4	89	0.00
26 T	2,2-Dichloropropane	50.000	48.821	2.4	92	0.00
27 T	cis-1,2-Dichloroethene	50.000	50.189	-0.4	93	0.00
28 T	Bromochloromethane	50.000	50.196	-0.4	99	0.00
29 T	Tetrahydrofuran	250.000	227.342	9.1	83	0.00
30 C	Chloroform	50.000	49.466	1.1#	93	0.00
31 T	Cyclohexane	50.000	43.387	13.2	85	0.00
32 T	1,1,1-Trichloroethane	50.000	49.532	0.9	94	0.00
33 S	1,2-Dichloroethane-d4	50.000	49.947	0.1	100	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	94	0.00
35 S	Dibromofluoromethane	50.000	53.556	-7.1	101	0.00
36 T	1,1-Dichloropropene	50.000	50.810	-1.6	91	0.00
37 T	Ethyl Acetate	50.000	47.578	4.8	85	0.00
38 T	Carbon Tetrachloride	50.000	52.223	-4.4	93	0.00
39 T	Methylcyclohexane	50.000	48.718	2.6	86	0.00
40 TM	Benzene	50.000	51.073	-2.1	91	0.00
41 T	Methacrylonitrile	50.000	49.854	0.3	87	0.00
42 TM	1,2-Dichloroethane	50.000	52.760	-5.5	94	0.00
43 T	Isopropyl Acetate	50.000	48.330	3.3	84	0.00
44 TM	Trichloroethene	50.000	51.489	-3.0	92	0.00
45 C	1,2-Dichloropropane	50.000	50.814	-1.6#	90	0.00
46 T	Dibromomethane	50.000	51.775	-3.5	91	0.00
47 T	Bromodichloromethane	50.000	52.552	-5.1	93	0.00
48 T	Methyl methacrylate	50.000	48.776	2.4	82	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 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: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	987.591	1.2	88	0.00
50 S	Toluene-d8	50.000	52.386	-4.8	99	0.00
51 T	4-Methyl-2-Pentanone	250.000	249.526	0.2	85	0.00
52 CM	Toluene	50.000	52.795	-5.6#	93	0.00
53 T	t-1,3-Dichloropropene	50.000	52.124	-4.2	89	0.00
54 T	cis-1,3-Dichloropropene	50.000	51.138	-2.3	90	0.00
55 T	1,1,2-Trichloroethane	50.000	50.869	-1.7	89	0.00
56 T	Ethyl methacrylate	50.000	51.680	-3.4	85	0.00
57 T	1,3-Dichloropropane	50.000	51.430	-2.9	90	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	257.917	-3.2	84	0.00
59 T	2-Hexanone	250.000	263.746	-5.5	86	0.00
60 T	Dibromochloromethane	50.000	53.214	-6.4	92	0.00
61 T	1,2-Dibromoethane	50.000	50.958	-1.9	89	0.00
62 S	4-Bromofluorobenzene	50.000	51.750	-3.5	98	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	95	0.00
64 T	Tetrachloroethene	50.000	52.180	-4.4	96	0.00
65 PM	Chlorobenzene	50.000	51.394	-2.8	93	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	52.434	-4.9	94	0.00
67 C	Ethyl Benzene	50.000	51.326	-2.7#	91	0.00
68 T	m/p-Xylenes	100.000	103.688	-3.7	92	0.00
69 T	o-Xylene	50.000	51.528	-3.1	90	0.00
70 T	Styrene	50.000	52.962	-5.9	92	0.00
71 P	Bromoform	50.000	51.622	-3.2	90	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	93	0.00
73 T	Isopropylbenzene	50.000	51.354	-2.7	91	0.00
74 T	N-amyl acetate	50.000	48.742	2.5	82	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	49.325	1.3	88	0.00
76 T	1,2,3-Trichloropropane	50.000	42.616	14.8	76	0.00
77 T	Bromobenzene	50.000	51.947	-3.9	93	0.00
78 T	n-propylbenzene	50.000	50.847	-1.7	90	0.00
79 T	2-Chlorotoluene	50.000	50.185	-0.4	90	0.00
80 T	1,3,5-Trimethylbenzene	50.000	51.032	-2.1	90	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	46.995	6.0	81	0.00
82 T	4-Chlorotoluene	50.000	49.658	0.7	89	0.00
83 T	tert-Butylbenzene	50.000	49.632	0.7	89	0.00
84 T	1,2,4-Trimethylbenzene	50.000	50.892	-1.8	90	0.00
85 T	sec-Butylbenzene	50.000	49.819	0.4	89	0.00
86 T	p-Isopropyltoluene	50.000	50.472	-0.9	89	0.00
87 T	1,3-Dichlorobenzene	50.000	51.311	-2.6	92	0.00
88 T	1,4-Dichlorobenzene	50.000	50.025	-0.0	91	0.00
89 T	n-Butylbenzene	50.000	50.152	-0.3	87	0.00
90 T	Hexachloroethane	50.000	48.657	2.7	89	0.00
91 T	1,2-Dichlorobenzene	50.000	50.334	-0.7	90	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	48.334	3.3	84	0.00
93 T	1,2,4-Trichlorobenzene	50.000	48.537	2.9	87	0.00
94 T	Hexachlorobutadiene	50.000	49.149	1.7	90	0.00
95 T	Naphthalene	50.000	48.393	3.2	80	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021375.D
Acq On : 28 Feb 2025 09:44
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: Feb 28 22:17:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 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	47.212	5.6	84	0.00

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 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: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	46.438	7.1	87	0.00
3 P	Chloromethane	50.000	46.223	7.6	91	0.00
4 C	Vinyl Chloride	50.000	51.293	-2.6#	96	0.00
5 T	Bromomethane	50.000	51.460	-2.9	103	0.00
6 T	Chloroethane	50.000	53.626	-7.3	100	0.00
7 T	Trichlorofluoromethane	50.000	51.575	-3.2	97	0.00
8 T	Diethyl Ether	50.000	49.423	1.2	91	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	48.644	2.7	93	0.00
10 T	Methyl Iodide	50.000	54.252	-8.5	92	0.00
11 T	Tert butyl alcohol	250.000	188.331	24.7	79	0.00
12 CM	1,1-Dichloroethene	50.000	48.376	3.2#	92	0.00
13 T	Acrolein	250.000	46.638	81.3#	91	0.00
14 T	Allyl chloride	50.000	45.608	8.8	85	0.00
15 T	Acrylonitrile	250.000	236.139	5.5	87	0.00
16 T	Acetone	250.000	302.934	-21.2	100	0.00
17 T	Carbon Disulfide	50.000	47.448	5.1	89	0.00
18 T	Methyl Acetate	50.000	46.449	7.1	87	0.00
19 T	Methyl tert-butyl Ether	50.000	49.070	1.9	90	0.00
20 T	Methylene Chloride	50.000	46.504	7.0	91	0.01
21 T	trans-1,2-Dichloroethene	50.000	49.547	0.9	93	0.00
22 T	Diisopropyl ether	50.000	47.952	4.1	88	0.00
23 T	Vinyl Acetate	250.000	238.456	4.6	86	0.00
24 P	1,1-Dichloroethane	50.000	48.476	3.0	91	0.00
25 T	2-Butanone	250.000	253.463	-1.4	89	0.00
26 T	2,2-Dichloropropane	50.000	48.821	2.4	92	0.00
27 T	cis-1,2-Dichloroethene	50.000	50.189	-0.4	93	0.00
28 T	Bromochloromethane	50.000	50.196	-0.4	99	0.00
29 T	Tetrahydrofuran	250.000	227.342	9.1	83	0.00
30 C	Chloroform	50.000	49.466	1.1#	93	0.00
31 T	Cyclohexane	50.000	43.387	13.2	85	0.00
32 T	1,1,1-Trichloroethane	50.000	49.532	0.9	94	0.00
33 S	1,2-Dichloroethane-d4	50.000	49.947	0.1	100	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	94	0.00
35 S	Dibromofluoromethane	50.000	53.556	-7.1	101	0.00
36 T	1,1-Dichloropropene	50.000	50.810	-1.6	91	0.00
37 T	Ethyl Acetate	50.000	47.578	4.8	85	0.00
38 T	Carbon Tetrachloride	50.000	52.223	-4.4	93	0.00
39 T	Methylcyclohexane	50.000	48.718	2.6	86	0.00
40 TM	Benzene	50.000	51.073	-2.1	91	0.00
41 T	Methacrylonitrile	50.000	49.854	0.3	87	0.00
42 TM	1,2-Dichloroethane	50.000	52.760	-5.5	94	0.00
43 T	Isopropyl Acetate	50.000	48.330	3.3	84	0.00
44 TM	Trichloroethene	50.000	51.489	-3.0	92	0.00
45 C	1,2-Dichloropropane	50.000	50.814	-1.6#	90	0.00
46 T	Dibromomethane	50.000	51.775	-3.5	91	0.00
47 T	Bromodichloromethane	50.000	52.552	-5.1	93	0.00
48 T	Methyl methacrylate	50.000	48.776	2.4	82	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021375.D
 Acq On : 28 Feb 2025 09:44
 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: Feb 28 22:17:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 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	987.591	1.2	88	0.00
50 S	Toluene-d8	50.000	52.386	-4.8	99	0.00
51 T	4-Methyl-2-Pentanone	250.000	249.526	0.2	85	0.00
52 CM	Toluene	50.000	52.795	-5.6#	93	0.00
53 T	t-1,3-Dichloropropene	50.000	52.124	-4.2	89	0.00
54 T	cis-1,3-Dichloropropene	50.000	51.138	-2.3	90	0.00
55 T	1,1,2-Trichloroethane	50.000	50.869	-1.7	89	0.00
56 T	Ethyl methacrylate	50.000	51.680	-3.4	85	0.00
57 T	1,3-Dichloropropane	50.000	51.430	-2.9	90	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	257.917	-3.2	84	0.00
59 T	2-Hexanone	250.000	263.746	-5.5	86	0.00
60 T	Dibromochloromethane	50.000	53.214	-6.4	92	0.00
61 T	1,2-Dibromoethane	50.000	50.958	-1.9	89	0.00
62 S	4-Bromofluorobenzene	50.000	51.750	-3.5	98	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	95	0.00
64 T	Tetrachloroethene	50.000	52.180	-4.4	96	0.00
65 PM	Chlorobenzene	50.000	51.394	-2.8	93	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	52.434	-4.9	94	0.00
67 C	Ethyl Benzene	50.000	51.326	-2.7#	91	0.00
68 T	m/p-Xylenes	100.000	103.688	-3.7	92	0.00
69 T	o-Xylene	50.000	51.528	-3.1	90	0.00
70 T	Styrene	50.000	52.962	-5.9	92	0.00
71 P	Bromoform	50.000	51.622	-3.2	90	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	93	0.00
73 T	Isopropylbenzene	50.000	51.354	-2.7	91	0.00
74 T	N-amyl acetate	50.000	48.742	2.5	82	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	49.325	1.3	88	0.00
76 T	1,2,3-Trichloropropane	50.000	42.616	14.8	76	0.00
77 T	Bromobenzene	50.000	51.947	-3.9	93	0.00
78 T	n-propylbenzene	50.000	50.847	-1.7	90	0.00
79 T	2-Chlorotoluene	50.000	50.185	-0.4	90	0.00
80 T	1,3,5-Trimethylbenzene	50.000	51.032	-2.1	90	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	46.995	6.0	81	0.00
82 T	4-Chlorotoluene	50.000	49.658	0.7	89	0.00
83 T	tert-Butylbenzene	50.000	49.632	0.7	89	0.00
84 T	1,2,4-Trimethylbenzene	50.000	50.892	-1.8	90	0.00
85 T	sec-Butylbenzene	50.000	49.819	0.4	89	0.00
86 T	p-Isopropyltoluene	50.000	50.472	-0.9	89	0.00
87 T	1,3-Dichlorobenzene	50.000	51.311	-2.6	92	0.00
88 T	1,4-Dichlorobenzene	50.000	50.025	-0.0	91	0.00
89 T	n-Butylbenzene	50.000	50.152	-0.3	87	0.00
90 T	Hexachloroethane	50.000	48.657	2.7	89	0.00
91 T	1,2-Dichlorobenzene	50.000	50.334	-0.7	90	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	48.334	3.3	84	0.00
93 T	1,2,4-Trichlorobenzene	50.000	48.537	2.9	87	0.00
94 T	Hexachlorobutadiene	50.000	49.149	1.7	90	0.00
95 T	Naphthalene	50.000	48.393	3.2	80	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021375.D
Acq On : 28 Feb 2025 09:44
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: Feb 28 22:17:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 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	47.212	5.6	84	0.00

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



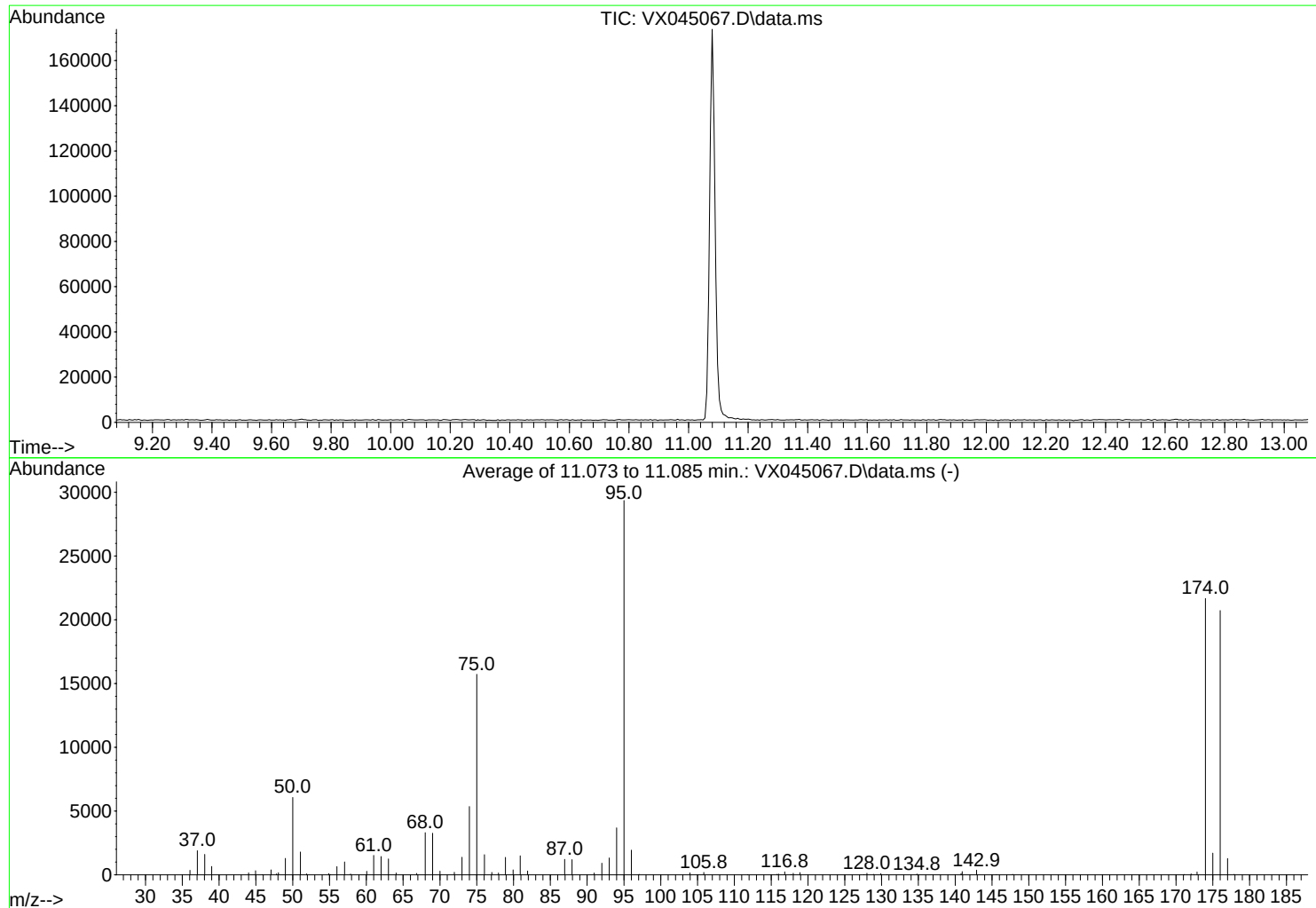
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022825\
Data File : VX045067.D
Acq On : 28 Feb 2025 01:03
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Title : SW846 8260
Last Update : Fri Feb 28 06:45:16 2025



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

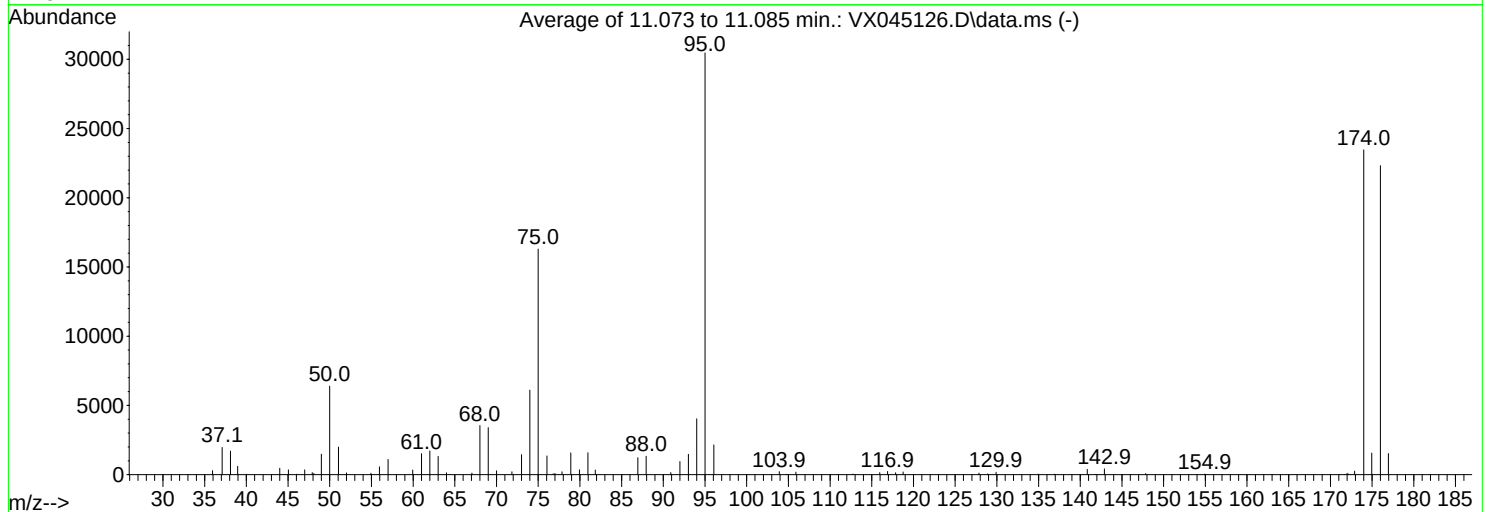
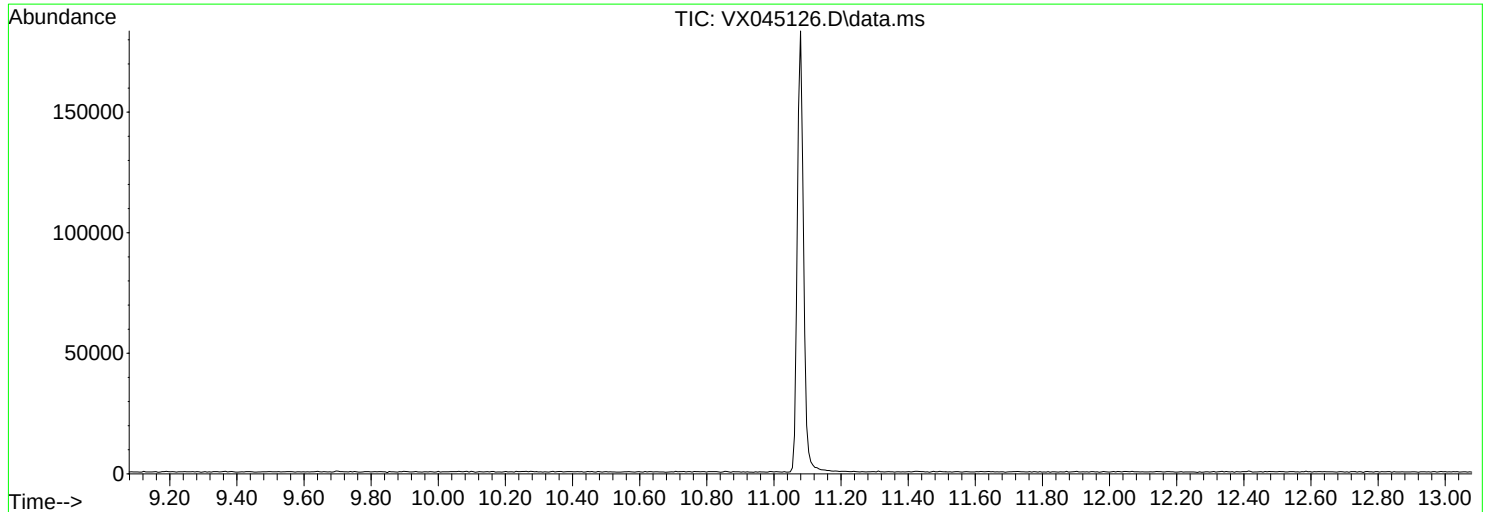
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.7	6072	PASS
75	95	30	60	53.6	15726	PASS
95	95	100	100	100.0	29360	PASS
96	95	5	9	6.6	1942	PASS
173	174	0.00	2	1.0	219	PASS
174	95	50	100	73.8	21677	PASS
175	174	5	9	7.9	1702	PASS
176	174	95	101	95.6	20723	PASS
177	176	5	9	6.2	1277	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
Data File : VX045126.D
Acq On : 05 Mar 2025 08:40
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Title : SW846 8260
Last Update : Fri Feb 28 06:45:16 2025



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

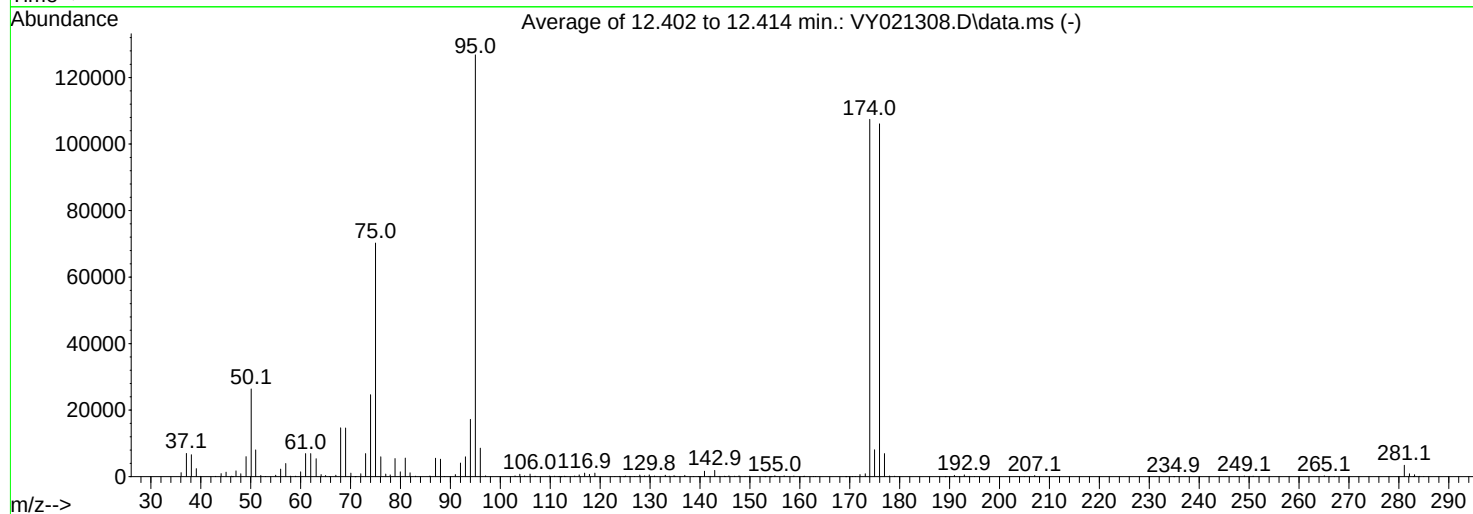
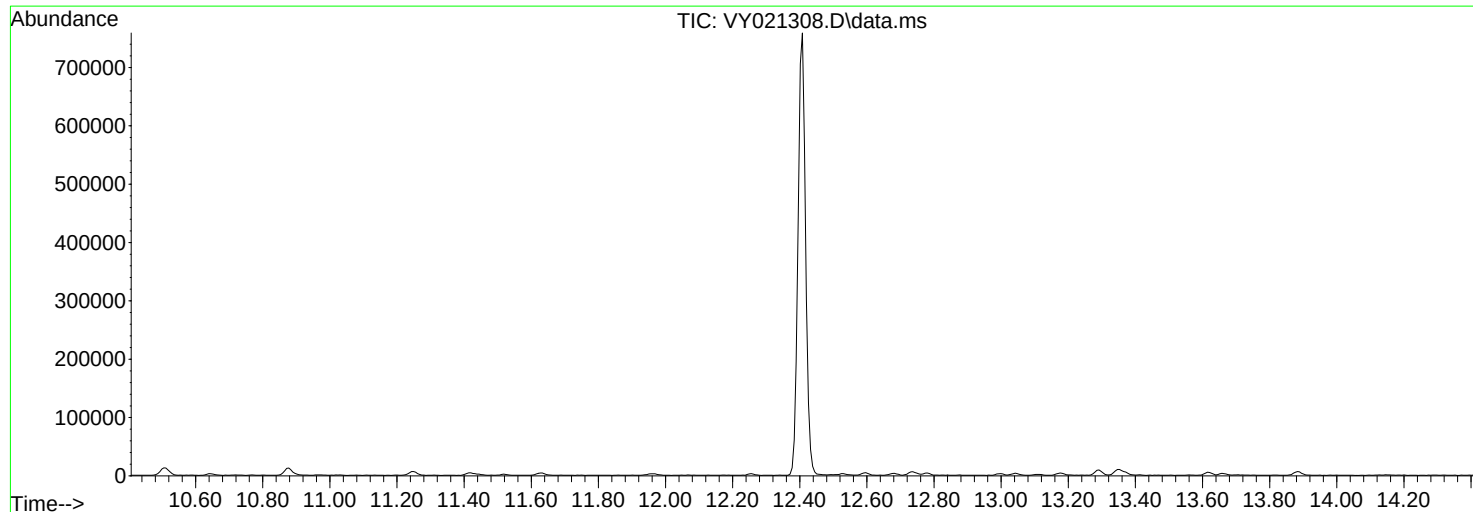
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	21.0	6391	PASS
75	95	30	60	53.5	16301	PASS
95	95	100	100	100.0	30469	PASS
96	95	5	9	7.1	2150	PASS
173	174	0.00	2	1.1	256	PASS
174	95	50	100	77.0	23464	PASS
175	174	5	9	6.7	1563	PASS
176	174	95	101	95.1	22320	PASS
177	176	5	9	6.9	1531	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022525\
Data File : VY021308.D
Acq On : 25 Feb 2025 12:10
Operator : SY/MD
Sample : BFB
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Title : SW846 8260
Last Update : Wed Feb 26 02:09:13 2025



AutoFind: Scans 1752, 1753, 1754; Background Corrected with Scan 1744

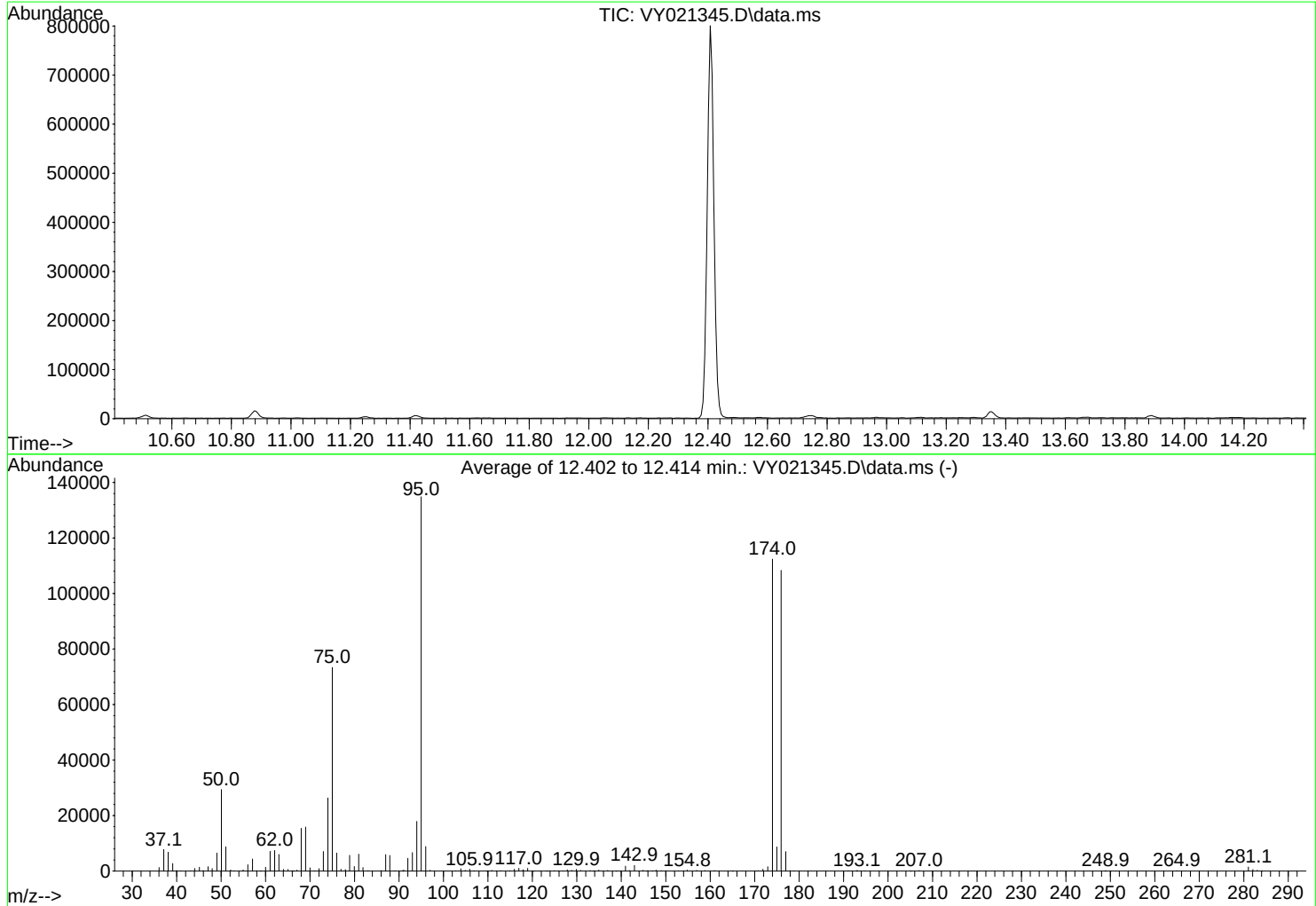
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	26379	PASS
75	95	30	60	55.4	70224	PASS
95	95	100	100	100.0	126829	PASS
96	95	5	9	6.7	8546	PASS
173	174	0.00	2	0.8	855	PASS
174	95	50	100	84.7	107419	PASS
175	174	5	9	7.5	8085	PASS
176	174	95	101	98.8	106077	PASS
177	176	5	9	6.5	6929	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021345.D
Acq On : 27 Feb 2025 09:41
Operator : SY/MD
Sample : BFB
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Title : SW846 8260
Last Update : Wed Feb 26 02:09:13 2025



AutoFind: Scans 1752, 1753, 1754; Background Corrected with Scan 1744

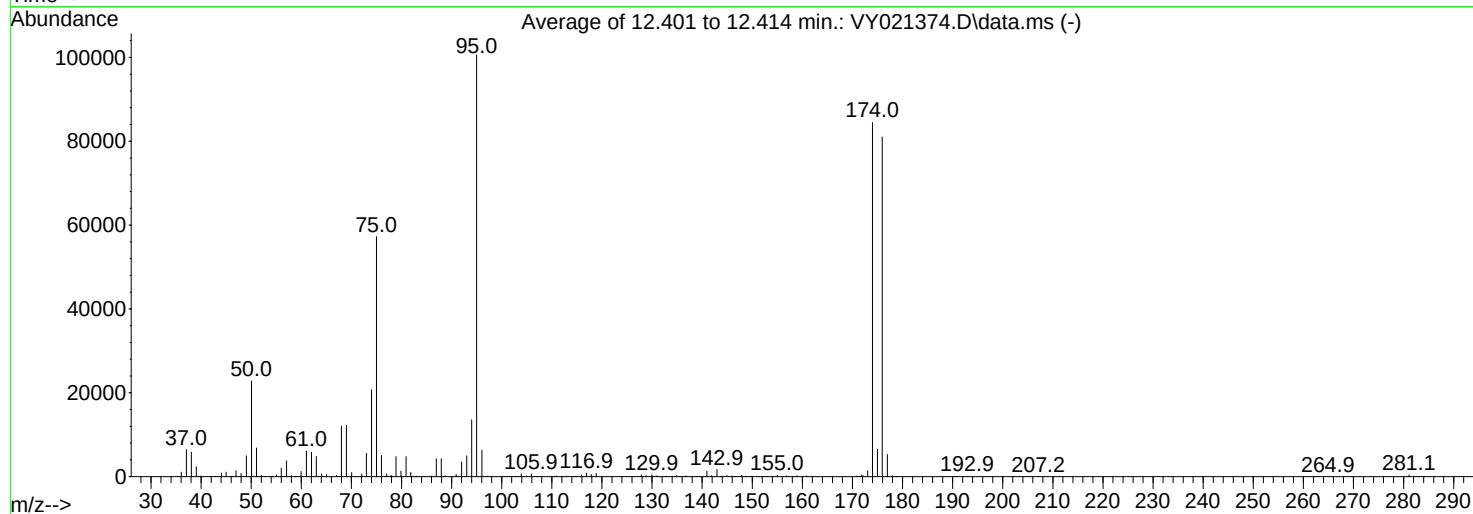
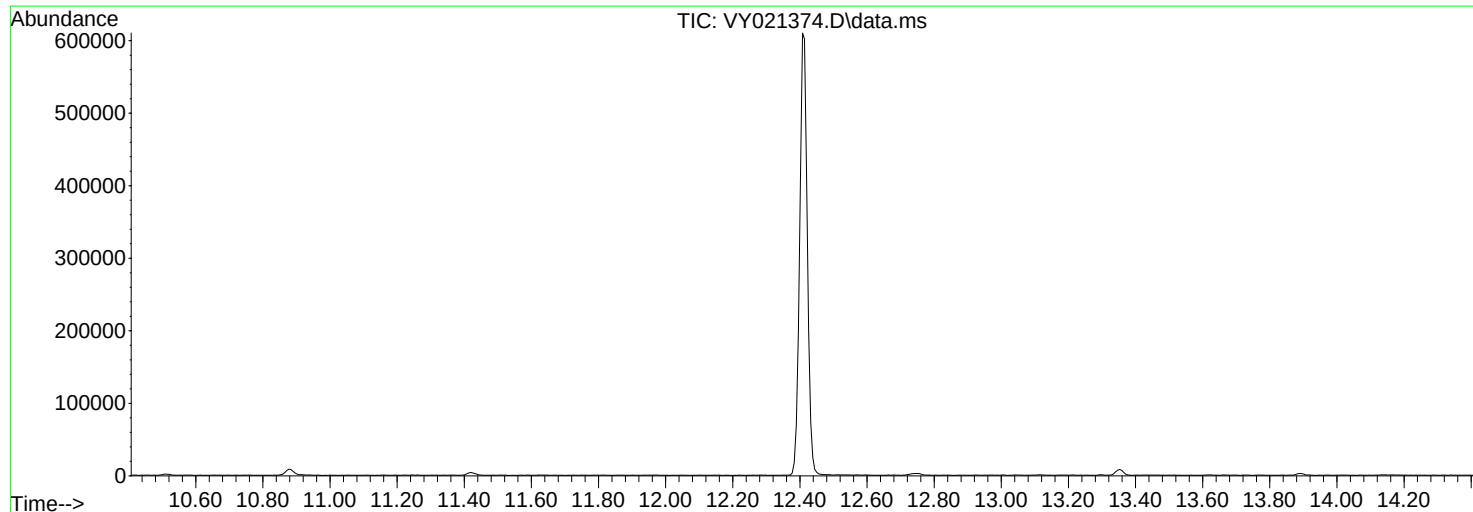
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	21.8	29339	PASS
75	95	30	60	54.4	73368	PASS
95	95	100	100	100.0	134840	PASS
96	95	5	9	6.6	8843	PASS
173	174	0.00	2	1.4	1606	PASS
174	95	50	100	83.3	112365	PASS
175	174	5	9	7.8	8726	PASS
176	174	95	101	96.4	108357	PASS
177	176	5	9	6.5	7010	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021374.D
Acq On : 28 Feb 2025 09:03
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\82Y022525S.M
Title : SW846 8260
Last Update : Wed Feb 26 02:09:13 2025



AutoFind: Scans 1752, 1753, 1754; Background Corrected with Scan 1745

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.7	22835	PASS
75	95	30	60	56.9	57275	PASS
95	95	100	100	100.0	100624	PASS
96	95	5	9	6.3	6358	PASS
173	174	0.00	2	1.6	1366	PASS
174	95	50	100	84.0	84512	PASS
175	174	5	9	7.7	6516	PASS
176	174	95	101	95.9	81021	PASS
177	176	5	9	6.5	5274	PASS

Report of Analysis

Client:	G Environmental		Date Collected:	
Project:	Fisal		Date Received:	
Client Sample ID:	VX0305MBL01		SDG No.:	Q1448
Lab Sample ID:	VX0305MBL01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100	uL	Test:	VOCMS Group2
GC Column:	DB-624UI	ID : 0.18	Level :	MED
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045128.D	1		03/05/25 09:39	VX030525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	120	U	120	500	ug/Kg
75-01-4	Vinyl Chloride	77.0	U	77.0	500	ug/Kg
74-83-9	Bromomethane	100	U	100	500	ug/Kg
75-00-3	Chloroethane	100	U	100	500	ug/Kg
75-65-0	Tert butyl alcohol	1600	U	1600	2500	ug/Kg
75-35-4	1,1-Dichloroethene	78.0	U	78.0	500	ug/Kg
67-64-1	Acetone	620	U	620	2500	ug/Kg
75-15-0	Carbon Disulfide	130	U	130	500	ug/Kg
1634-04-4	Methyl tert-butyl Ether	67.0	U	67.0	500	ug/Kg
75-09-2	Methylene Chloride	340	U	340	1000	ug/Kg
156-60-5	trans-1,2-Dichloroethene	84.0	U	84.0	500	ug/Kg
75-34-3	1,1-Dichloroethane	63.0	U	63.0	500	ug/Kg
78-93-3	2-Butanone	570	U	570	2500	ug/Kg
56-23-5	Carbon Tetrachloride	87.0	U	87.0	500	ug/Kg
156-59-2	cis-1,2-Dichloroethene	61.0	U	61.0	500	ug/Kg
67-66-3	Chloroform	67.0	U	67.0	500	ug/Kg
71-55-6	1,1,1-Trichloroethane	78.0	U	78.0	500	ug/Kg
71-43-2	Benzene	72.0	U	72.0	500	ug/Kg
107-06-2	1,2-Dichloroethane	61.0	U	61.0	500	ug/Kg
79-01-6	Trichloroethene	75.0	U	75.0	500	ug/Kg
78-87-5	1,2-Dichloropropane	66.0	U	66.0	500	ug/Kg
75-27-4	Bromodichloromethane	56.0	U	56.0	500	ug/Kg
108-10-1	4-Methyl-2-Pentanone	440	U	440	2500	ug/Kg
108-88-3	Toluene	67.0	U	67.0	500	ug/Kg
10061-02-6	t-1,3-Dichloropropene	60.0	U	60.0	500	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	57.0	U	57.0	500	ug/Kg
79-00-5	1,1,2-Trichloroethane	84.0	U	84.0	500	ug/Kg
591-78-6	2-Hexanone	480	U	480	2500	ug/Kg
124-48-1	Dibromochloromethane	65.0	U	65.0	500	ug/Kg
127-18-4	Tetrachloroethene	89.0	U	89.0	500	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	
Project:	Fisal	Date Received:	
Client Sample ID:	VX0305MBL01	SDG No.:	Q1448
Lab Sample ID:	VX0305MBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOCMS Group2
GC Column:	DB-624UI ID : 0.18	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045128.D	1		03/05/25 09:39	VX030525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	74.0	U	74.0	500	ug/Kg
100-41-4	Ethyl Benzene	62.0	U	62.0	500	ug/Kg
179601-23-1	m/p-Xylenes	140	U	140	1000	ug/Kg
95-47-6	o-Xylene	70.0	U	70.0	500	ug/Kg
100-42-5	Styrene	60.0	U	60.0	500	ug/Kg
75-25-2	Bromoform	81.0	U	81.0	500	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	110	U	110	500	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.8		70 (63) - 130 (155)	106%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		70 (70) - 130 (134)	102%	SPK: 50
2037-26-5	Toluene-d8	51.3		70 (74) - 130 (123)	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.4		70 (38) - 130 (136)	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	68300	5.544			
540-36-3	1,4-Difluorobenzene	138000	6.757			
3114-55-4	Chlorobenzene-d5	128000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	54700	12.024			

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_X\Data\VX030525\
 Data File : VX045128.D
 Acq On : 05 Mar 2025 09:39
 Operator : JC/MD
 Sample : VX0305MBL01
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_X/MEOH
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0305MBL01

Quant Time: Mar 06 00:59:11 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	5.544	168	68268	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	138238	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	127715	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.024	152	54682	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.946	65	57330	52.795	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	= 105.580%	
35) Dibromofluoromethane	5.379	113	46980	50.824	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	= 101.640%	
50) Toluene-d8	8.647	98	172066	51.346	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	= 102.700%	
62) 4-Bromofluorobenzene	11.079	95	58162	52.376	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	= 104.760%	

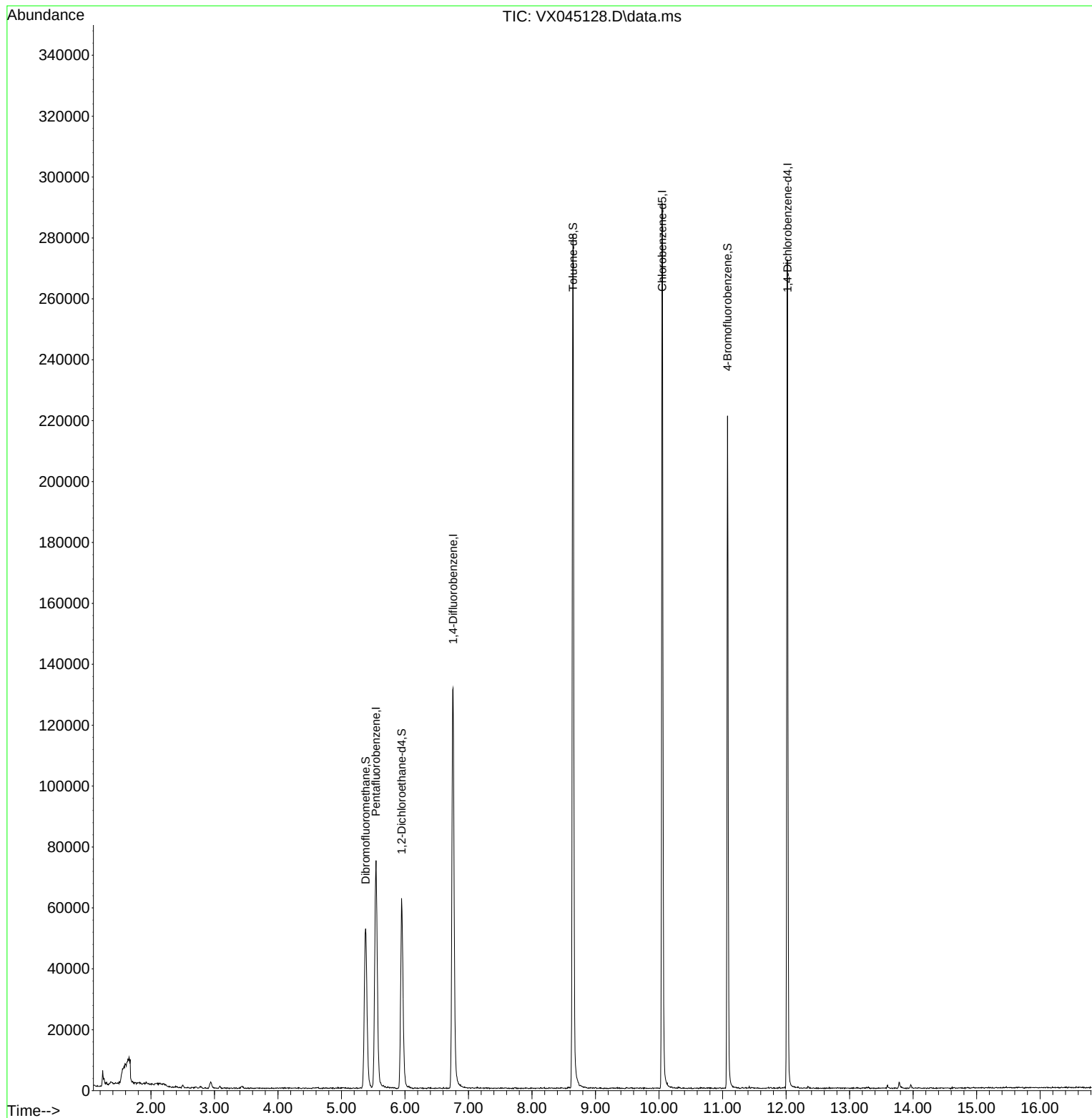
Target Compounds	Qvalue

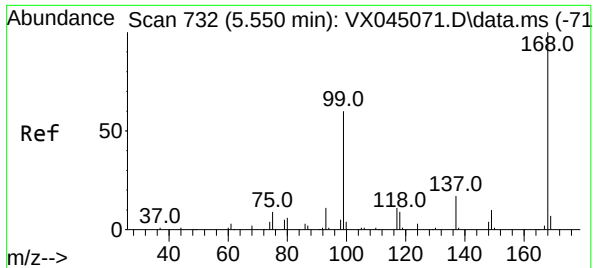
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
Data File : VX045128.D
Acq On : 05 Mar 2025 09:39
Operator : JC/MD
Sample : VX0305MBL01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_X/MEOH
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0305MBL01

Quant Time: Mar 06 00:59:11 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 2025
Response via : Initial Calibration

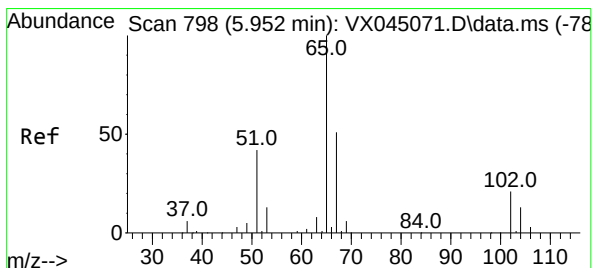
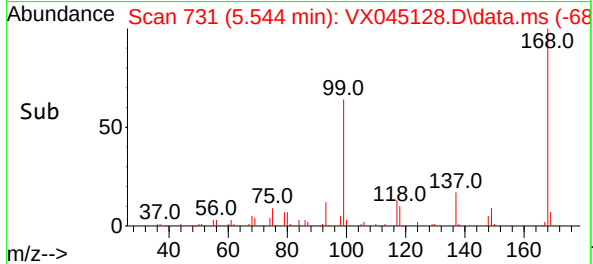
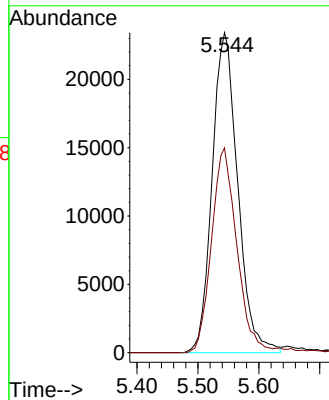
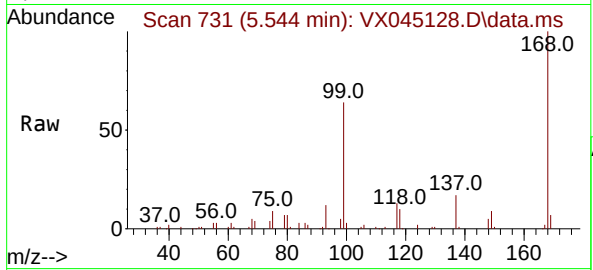




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.544 min Scan# 71
Delta R.T. -0.006 min
Lab File: VX045128.D
Acq: 05 Mar 2025 09:39

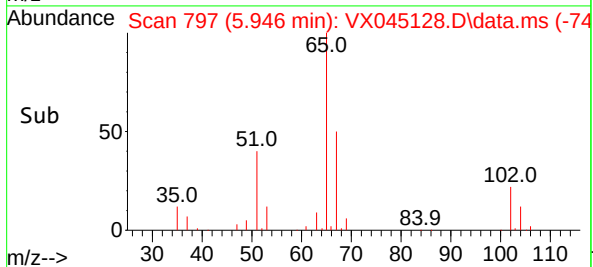
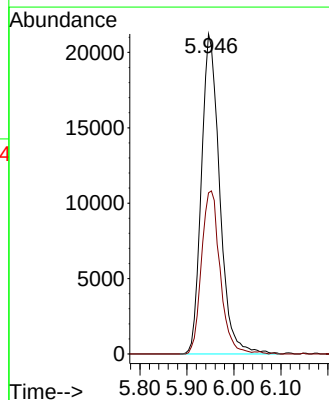
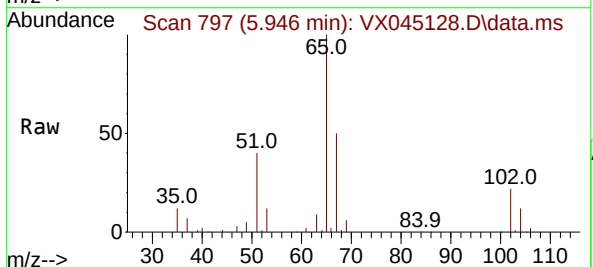
Instrument :
MSVOA_X
ClientSampleId :
VX0305MBL01

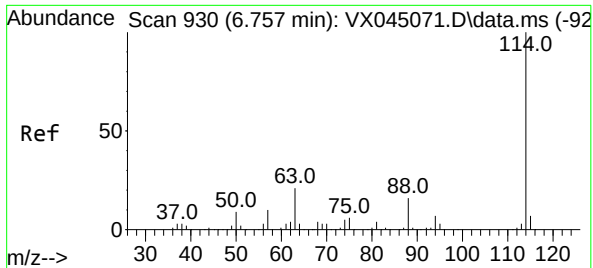
Tgt Ion:168 Resp: 68268
Ion Ratio Lower Upper
168 100
99 64.0 48.2 72.4



#33
1,2-Dichloroethane-d4
Concen: 52.795 ug/l
RT: 5.946 min Scan# 797
Delta R.T. -0.006 min
Lab File: VX045128.D
Acq: 05 Mar 2025 09:39

Tgt Ion: 65 Resp: 57330
Ion Ratio Lower Upper
65 100
67 51.7 0.0 106.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 91

Delta R.T. -0.000 min

Lab File: VX045128.D

Acq: 05 Mar 2025 09:39

Instrument :

MSVOA_X

ClientSampleId :

VX0305MBL01

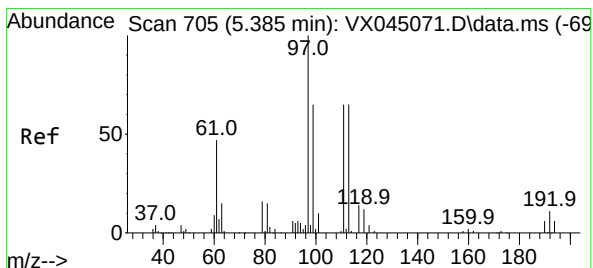
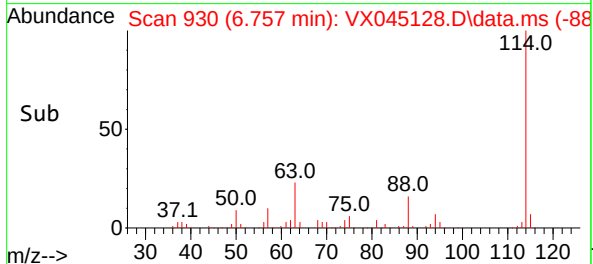
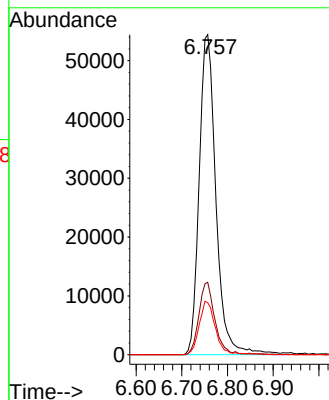
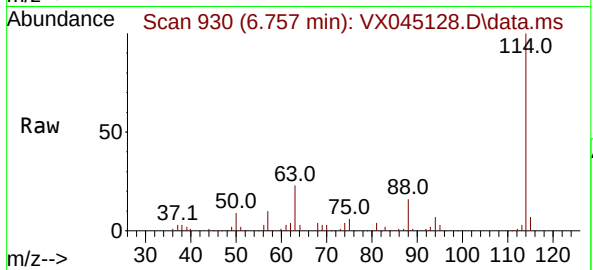
Tgt Ion:114 Resp: 138238

Ion Ratio Lower Upper

114 100

63 22.6 0.0 41.8

88 16.3 0.0 32.8



#35

Dibromofluoromethane

Concen: 50.824 ug/l

RT: 5.379 min Scan# 704

Delta R.T. -0.006 min

Lab File: VX045128.D

Acq: 05 Mar 2025 09:39

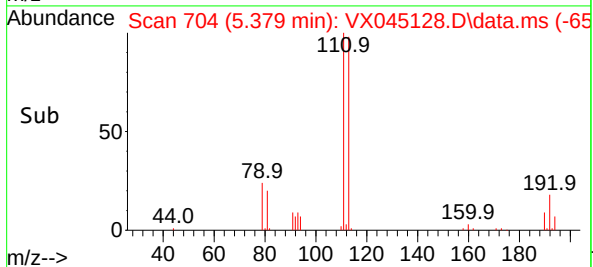
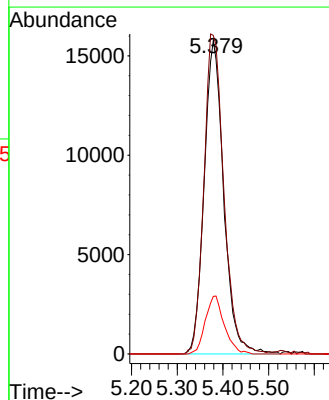
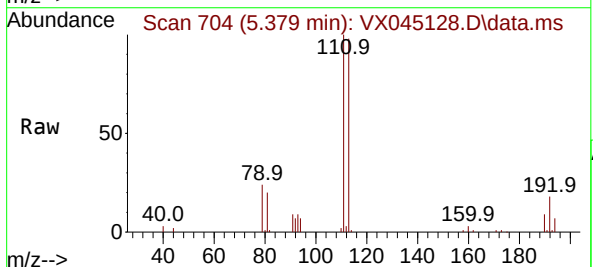
Tgt Ion:113 Resp: 46980

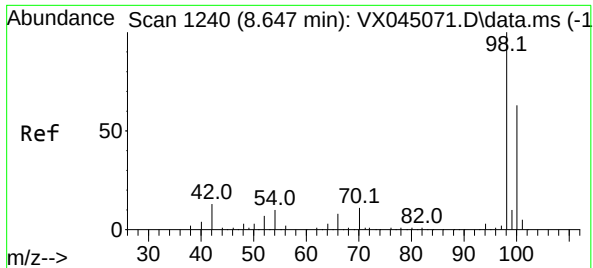
Ion Ratio Lower Upper

113 100

111 103.8 81.8 122.6

192 17.9 14.3 21.5

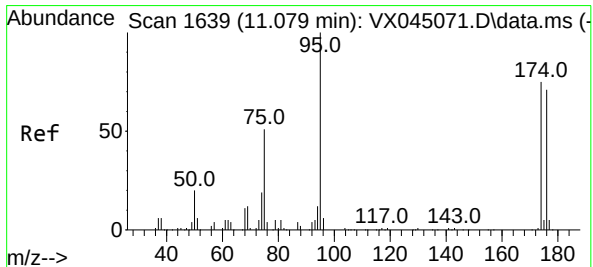
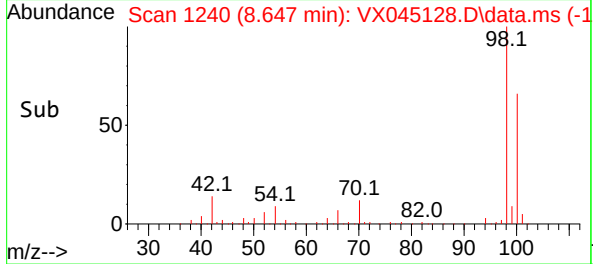
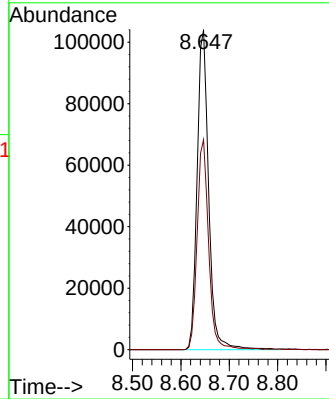
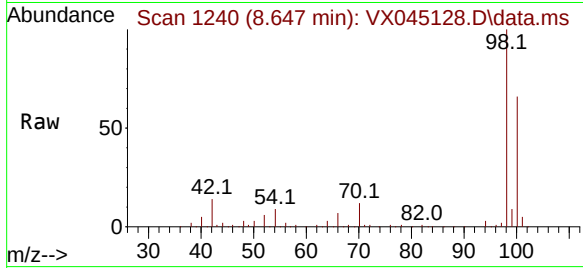




#50
Toluene-d8
Concen: 51.346 ug/l
RT: 8.647 min Scan# 11
Delta R.T. -0.000 min
Lab File: VX045128.D
Acq: 05 Mar 2025 09:39

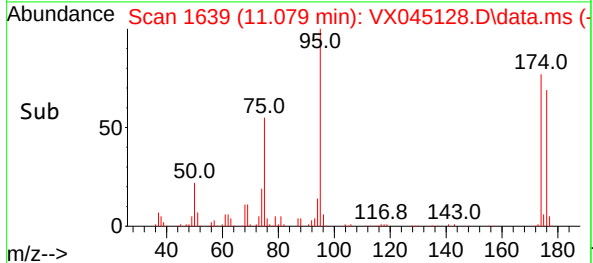
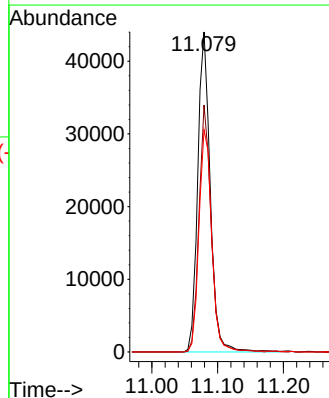
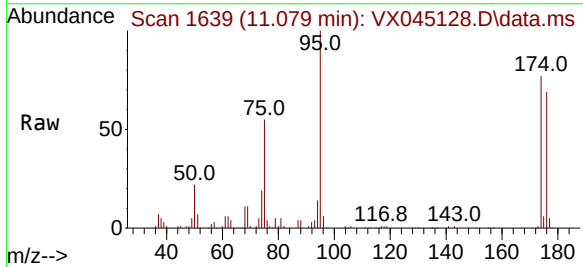
Instrument :
MSVOA_X
ClientSampleId :
VX0305MBL01

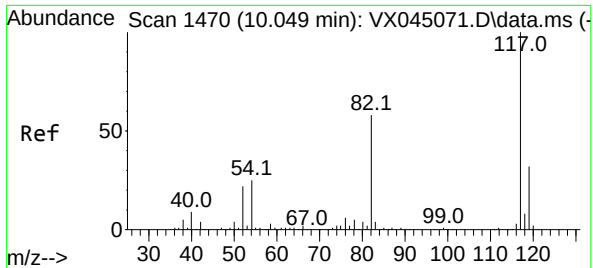
Tgt Ion: 98 Resp: 172066
Ion Ratio Lower Upper
98 100
100 65.5 52.0 78.0



#62
4-Bromofluorobenzene
Concen: 52.376 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX045128.D
Acq: 05 Mar 2025 09:39

Tgt Ion: 95 Resp: 58162
Ion Ratio Lower Upper
95 100
174 75.6 0.0 148.2
176 71.2 0.0 141.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.049 min Scan# 1470

Delta R.T. -0.000 min

Lab File: VX045128.D

Acq: 05 Mar 2025 09:39

Instrument :

MSVOA_X

ClientSampleId :

VX0305MBL01

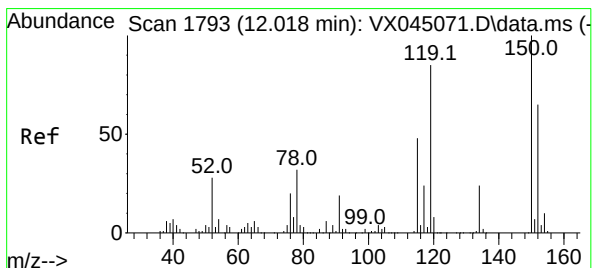
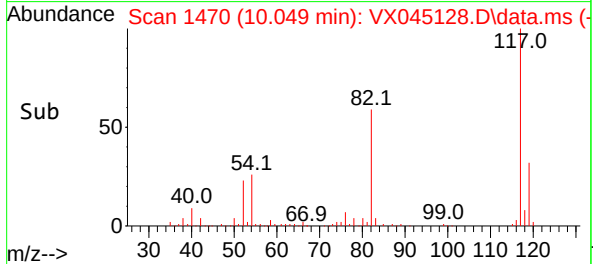
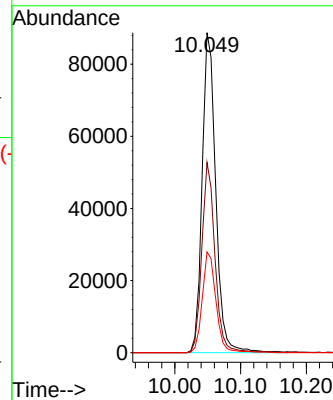
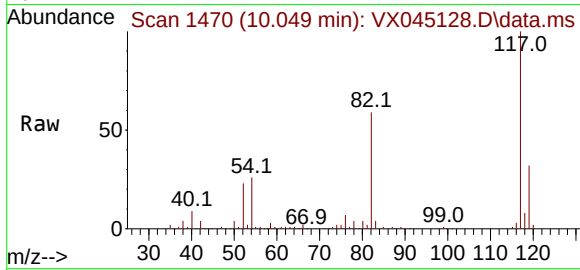
Tgt Ion:117 Resp: 127715

Ion Ratio Lower Upper

117 100

82 59.4 46.3 69.5

119 31.5 25.7 38.5



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 1794

Delta R.T. 0.006 min

Lab File: VX045128.D

Acq: 05 Mar 2025 09:39

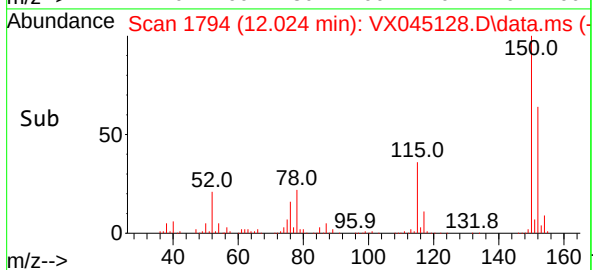
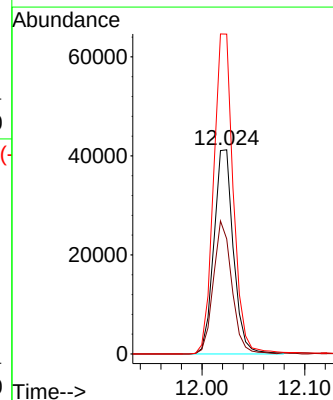
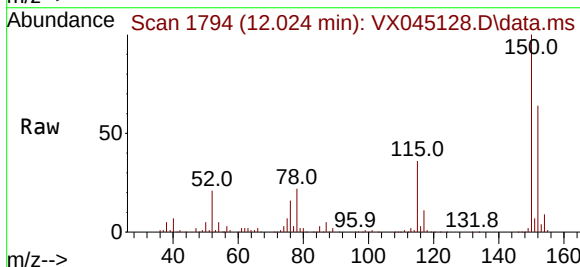
Tgt Ion:152 Resp: 54682

Ion Ratio Lower Upper

152 100

115 61.4 44.2 132.6

150 158.6 0.0 349.0



Report of Analysis

Client:	G Environmental	Date Collected:	
Project:	Fisal	Date Received:	
Client Sample ID:	VY0227SBL01	SDG No.:	Q1448
Lab Sample ID:	VY0227SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021347.D	1		02/27/25 10:42	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.77	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	1.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	5.00	ug/Kg
75-65-0	Tert butyl alcohol	15.6	U	15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	0.78	U	0.78	5.00	ug/Kg
67-64-1	Acetone	6.20	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	1.30	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.67	U	0.67	5.00	ug/Kg
75-09-2	Methylene Chloride	3.40	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.84	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.63	U	0.63	5.00	ug/Kg
78-93-3	2-Butanone	5.70	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.87	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.61	U	0.61	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.78	U	0.78	5.00	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.61	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	0.75	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.66	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.56	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.40	U	4.40	25.0	ug/Kg
108-88-3	Toluene	0.67	U	0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.60	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.57	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.84	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	4.80	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.65	U	0.65	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.89	U	0.89	5.00	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	
Project:	Fisal	Date Received:	
Client Sample ID:	VY0227SBL01	SDG No.:	Q1448
Lab Sample ID:	VY0227SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021347.D	1		02/27/25 10:42	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.74	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.62	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.40	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	0.70	U	0.70	5.00	ug/Kg
100-42-5	Styrene	0.60	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.2		70 (63) - 130 (155)	118%	SPK: 50
1868-53-7	Dibromofluoromethane	52.5		70 (70) - 130 (134)	105%	SPK: 50
2037-26-5	Toluene-d8	48.2		70 (74) - 130 (123)	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.5		70 (38) - 130 (136)	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	140000	7.707			
540-36-3	1,4-Difluorobenzene	264000	8.615			
3114-55-4	Chlorobenzene-d5	255000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	107000	13.346			

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 OC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
 Data File : VY021347.D
 Acq On : 27 Feb 2025 10:42
 Operator : SY/MD
 Sample : VY0227SBL01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0227SBL01

Quant Time: Feb 28 00:40:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	140233	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.615	114	264026	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	255103	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	107368	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	94225	59.230	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	118.460%
35) Dibromofluoromethane	7.634	113	90944	52.539	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	105.080%
50) Toluene-d8	10.109	98	322284	48.176	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	96.360%
62) 4-Bromofluorobenzene	12.407	95	111519	49.533	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	99.060%

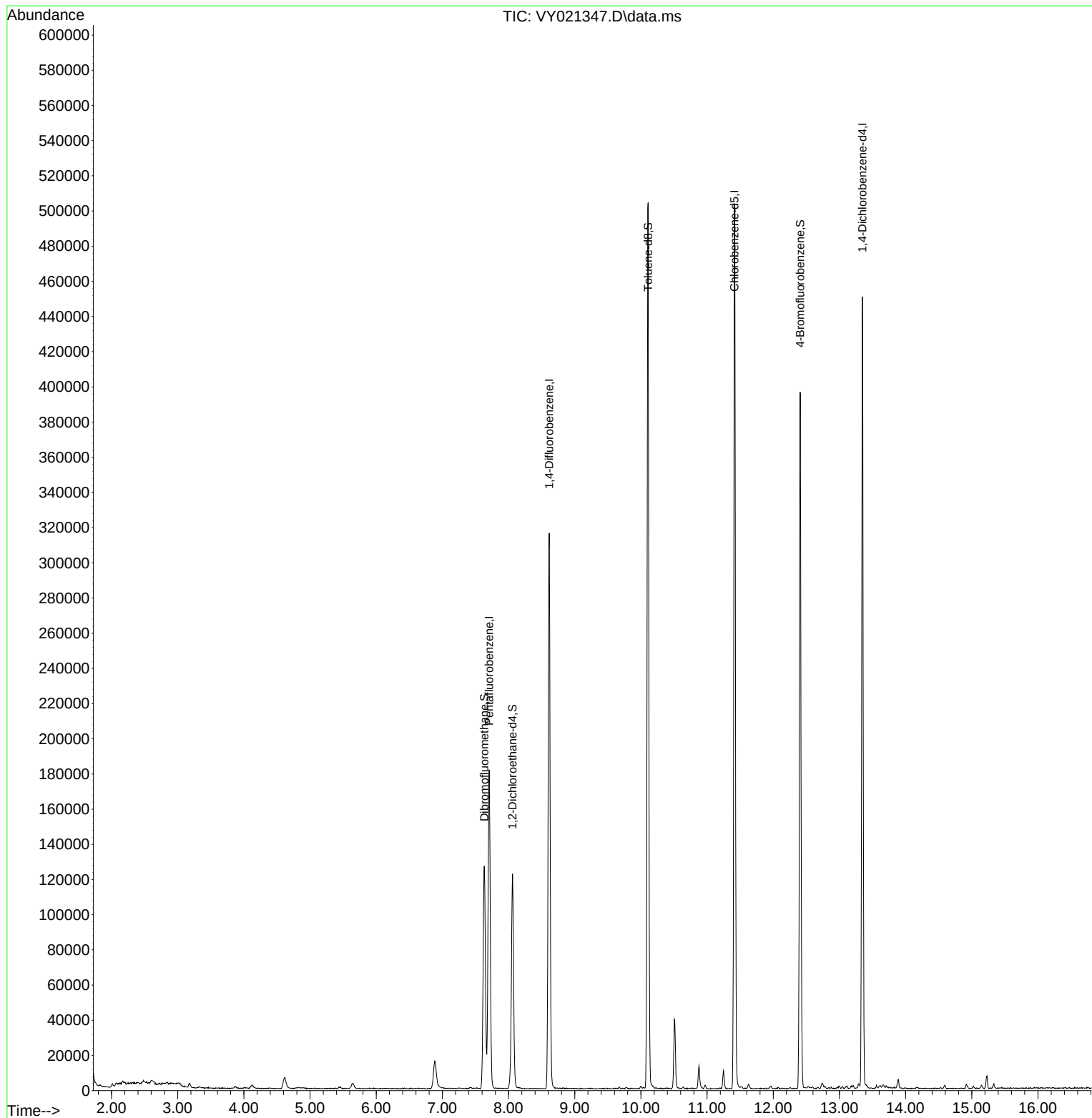
Target Compounds	Qvalue

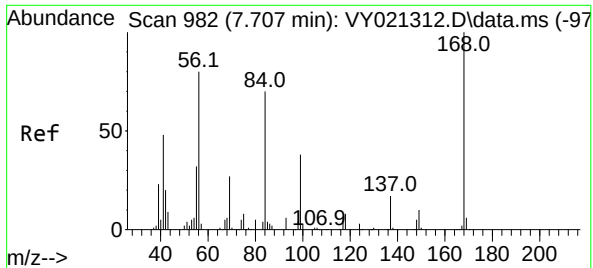
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021347.D
Acq On : 27 Feb 2025 10:42
Operator : SY/MD
Sample : VY0227SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0227SBL01

Quant Time: Feb 28 00:40:00 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

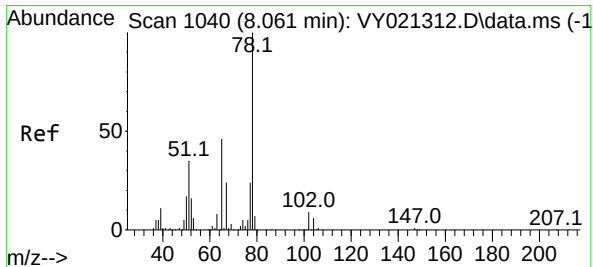
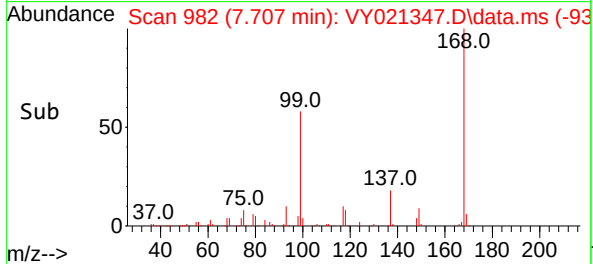
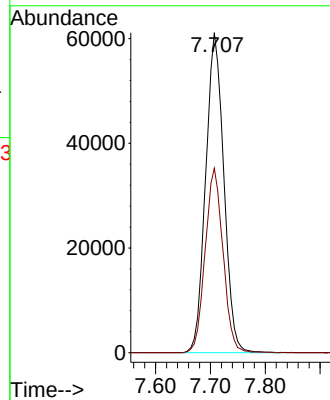
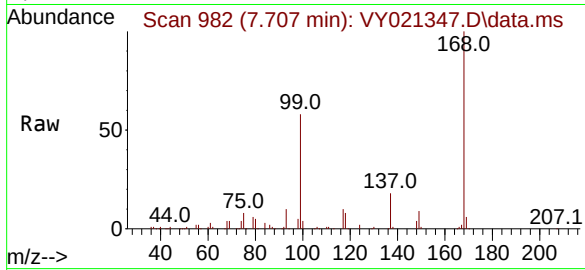




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 982
Delta R.T. 0.000 min
Lab File: VY021347.D
Acq: 27 Feb 2025 10:42

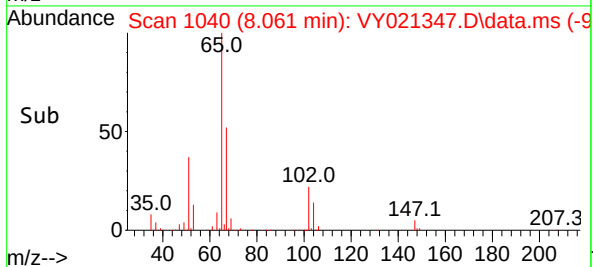
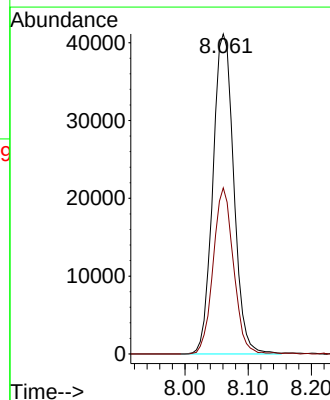
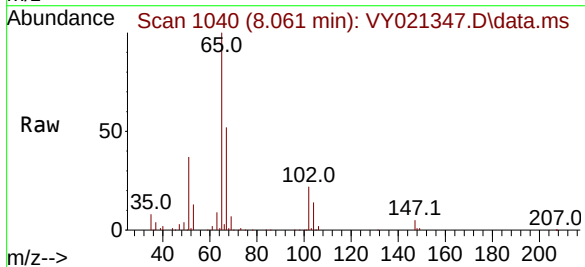
Instrument :
MSVOA_Y
ClientSampleId :
VY0227SBL01

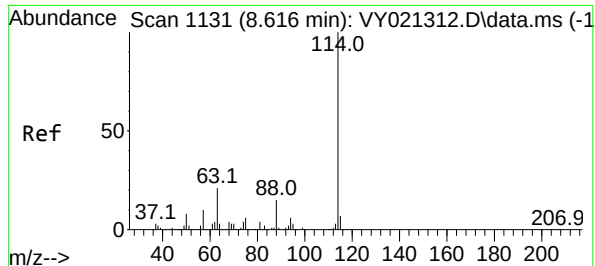
Tgt Ion:168 Resp: 140233
Ion Ratio Lower Upper
168 100
99 57.6 47.1 70.7



#33
1,2-Dichloroethane-d4
Concen: 59.230 ug/l
RT: 8.061 min Scan# 1040
Delta R.T. -0.000 min
Lab File: VY021347.D
Acq: 27 Feb 2025 10:42

Tgt Ion: 65 Resp: 94225
Ion Ratio Lower Upper
65 100
67 50.4 0.0 103.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.615 min Scan# 1131

Delta R.T. -0.000 min

Lab File: VY021347.D

Acq: 27 Feb 2025 10:42

Instrument :

MSVOA_Y

ClientSampleId :

VY0227SBL01

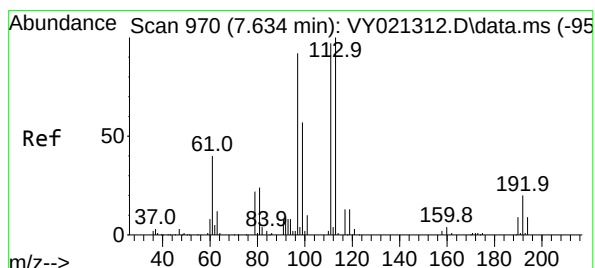
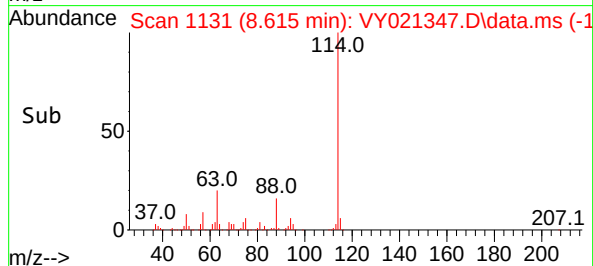
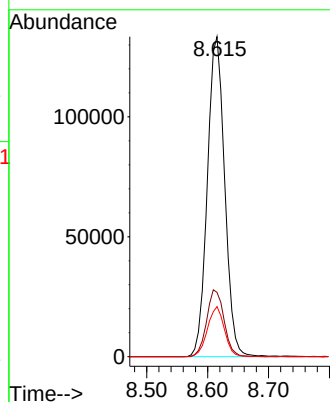
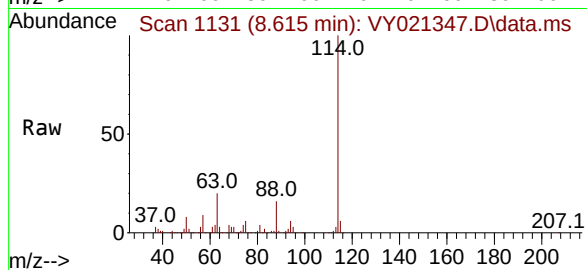
Tgt Ion:114 Resp: 264026

Ion Ratio Lower Upper

114 100

63 20.1 0.0 42.2

88 15.7 0.0 29.8



#35

Dibromofluoromethane

Concen: 52.539 ug/l

RT: 7.634 min Scan# 970

Delta R.T. -0.000 min

Lab File: VY021347.D

Acq: 27 Feb 2025 10:42

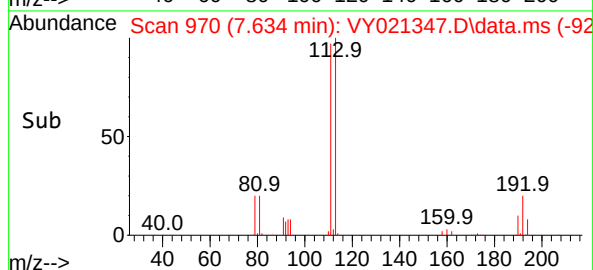
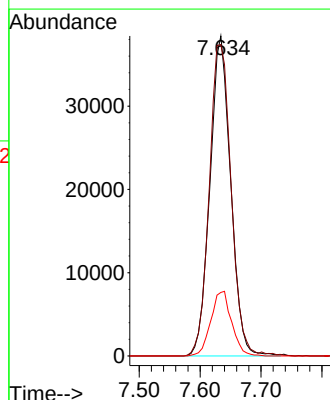
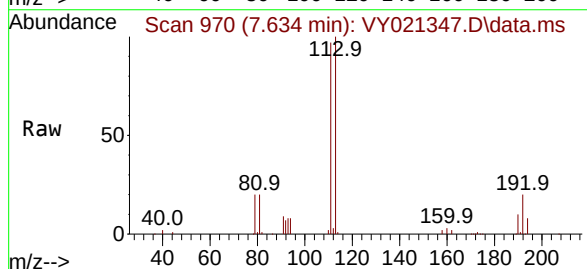
Tgt Ion:113 Resp: 90944

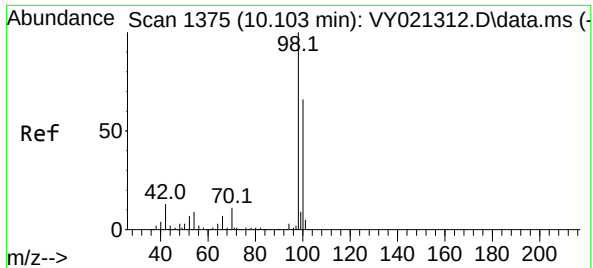
Ion Ratio Lower Upper

113 100

111 103.0 81.0 121.6

192 20.3 15.8 23.8

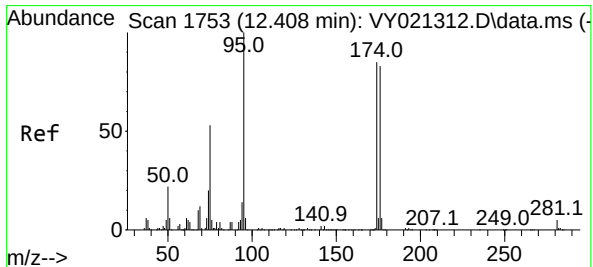
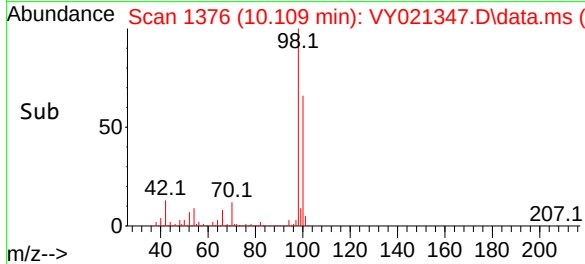
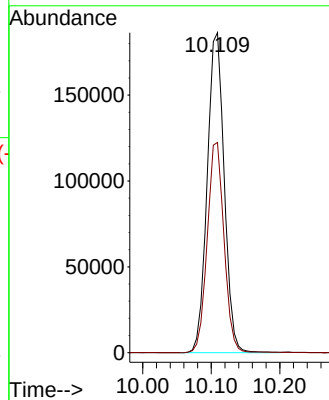
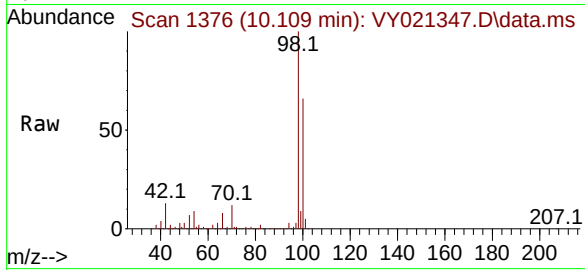




#50
Toluene-d8
Concen: 48.176 ug/l
RT: 10.109 min Scan# 1375
Delta R.T. 0.006 min
Lab File: VY021347.D
Acq: 27 Feb 2025 10:42

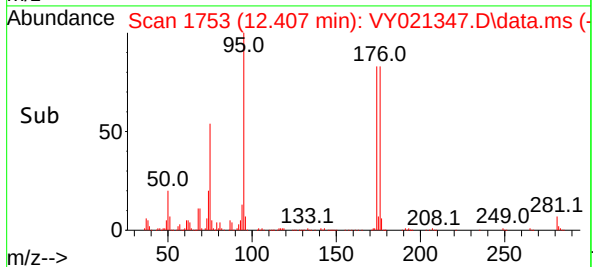
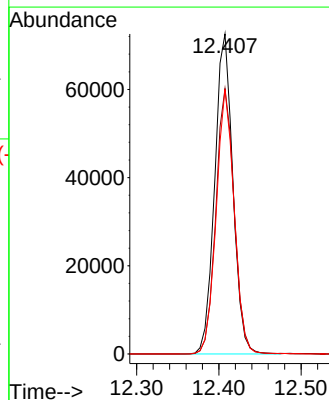
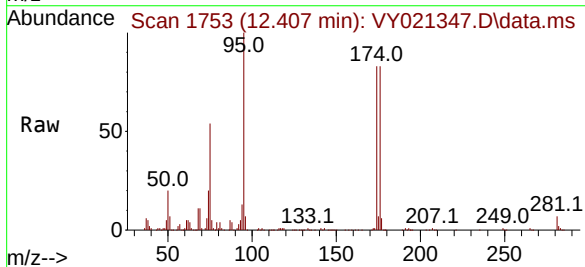
Instrument :
MSVOA_Y
ClientSampleId :
VY0227SBL01

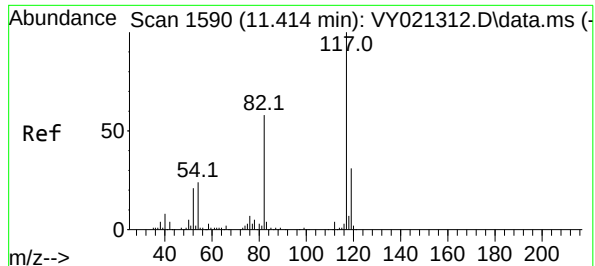
Tgt Ion: 98 Resp: 322284
Ion Ratio Lower Upper
98 100
100 65.0 52.4 78.6



#62
4-Bromofluorobenzene
Concen: 49.533 ug/l
RT: 12.407 min Scan# 1753
Delta R.T. -0.000 min
Lab File: VY021347.D
Acq: 27 Feb 2025 10:42

Tgt Ion: 95 Resp: 111519
Ion Ratio Lower Upper
95 100
174 83.8 0.0 168.0
176 81.7 0.0 162.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.414 min Scan# 1590

Delta R.T. -0.000 min

Lab File: VY021347.D

Acq: 27 Feb 2025 10:42

Instrument :

MSVOA_Y

ClientSampleId :

VY0227SBL01

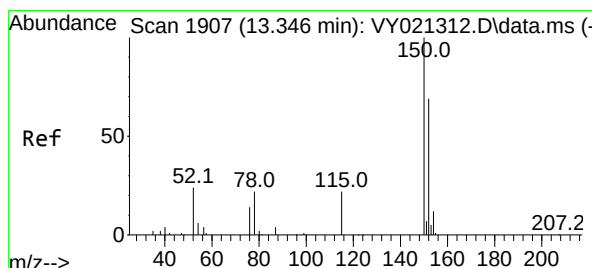
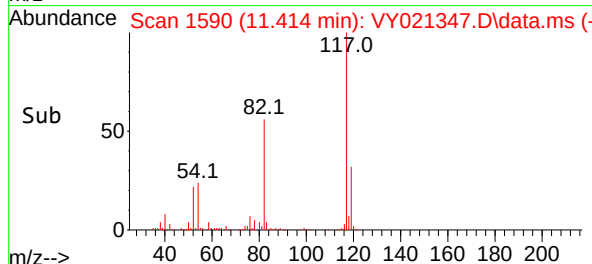
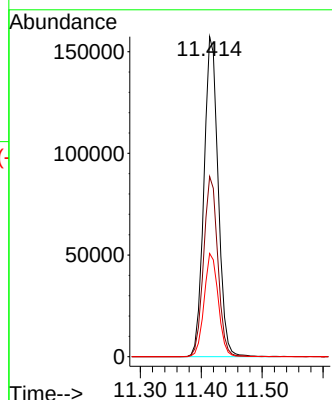
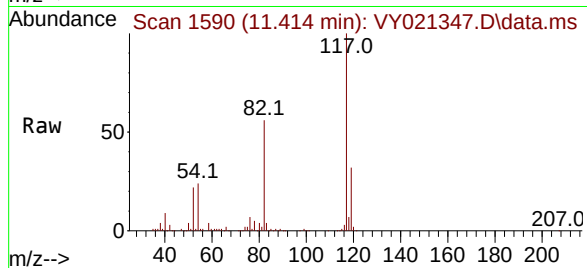
Tgt Ion:117 Resp: 255103

Ion Ratio Lower Upper

117 100

82 56.3 46.2 69.4

119 32.3 24.9 37.3



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.346 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VY021347.D

Acq: 27 Feb 2025 10:42

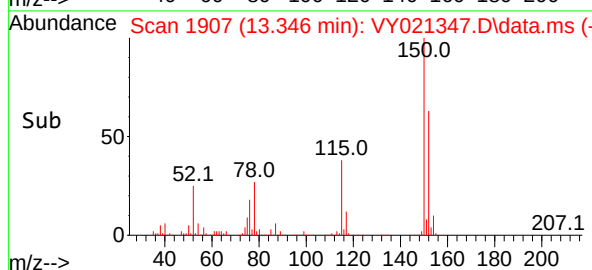
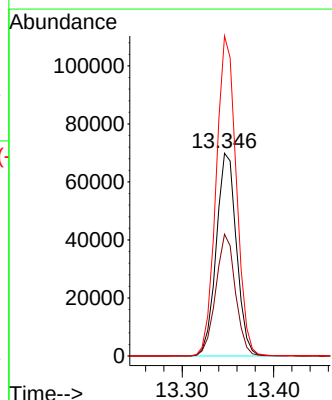
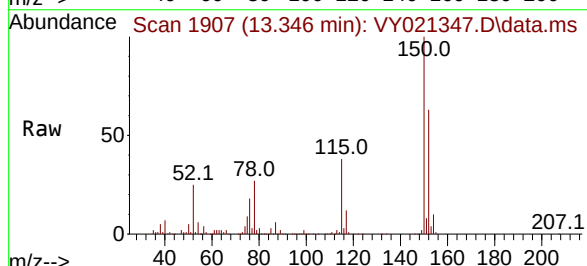
Tgt Ion:152 Resp: 107368

Ion Ratio Lower Upper

152 100

115 58.5 29.3 88.0

150 157.4 0.0 347.4



Report of Analysis

Client:	G Environmental		Date Collected:	
Project:	Fisal		Date Received:	
Client Sample ID:	VY0228SBL01		SDG No.:	Q1448
Lab Sample ID:	VY0228SBL01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021376.D	1		02/28/25 10:59	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.77	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	1.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	5.00	ug/Kg
75-65-0	Tert butyl alcohol	15.6	U	15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	0.78	U	0.78	5.00	ug/Kg
67-64-1	Acetone	6.20	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	1.30	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.67	U	0.67	5.00	ug/Kg
75-09-2	Methylene Chloride	3.40	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.84	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.63	U	0.63	5.00	ug/Kg
78-93-3	2-Butanone	5.70	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.87	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.61	U	0.61	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.78	U	0.78	5.00	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.61	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	0.75	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.66	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.56	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.40	U	4.40	25.0	ug/Kg
108-88-3	Toluene	0.67	U	0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.60	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.57	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.84	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	4.80	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.65	U	0.65	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.89	U	0.89	5.00	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	
Project:	Fisal	Date Received:	
Client Sample ID:	VY0228SBL01	SDG No.:	Q1448
Lab Sample ID:	VY0228SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021376.D	1		02/28/25 10:59	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	0.74	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.62	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.40	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	0.70	U	0.70	5.00	ug/Kg
100-42-5	Styrene	0.60	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.2		70 (63) - 130 (155)	104%	SPK: 50
1868-53-7	Dibromofluoromethane	52.0		70 (70) - 130 (134)	104%	SPK: 50
2037-26-5	Toluene-d8	47.1		70 (74) - 130 (123)	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.7		70 (38) - 130 (136)	81%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	106000	7.713			
540-36-3	1,4-Difluorobenzene	181000	8.616			
3114-55-4	Chlorobenzene-d5	159000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	59400	13.353			

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\VY022825\
 Data File : VY021376.D
 Acq On : 28 Feb 2025 10:59
 Operator : SY/MD
 Sample : VY0228SBL01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0228SBL01

Quant Time: Feb 28 22:18:21 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.713	168	105534	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	180558	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	159029	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	59388	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	62494	52.201	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	104.400%
35) Dibromofluoromethane	7.634	113	61564	52.007	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	104.020%
50) Toluene-d8	10.109	98	215695	47.148	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	94.300%
62) 4-Bromofluorobenzene	12.408	95	62690	40.717	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	=	81.440%

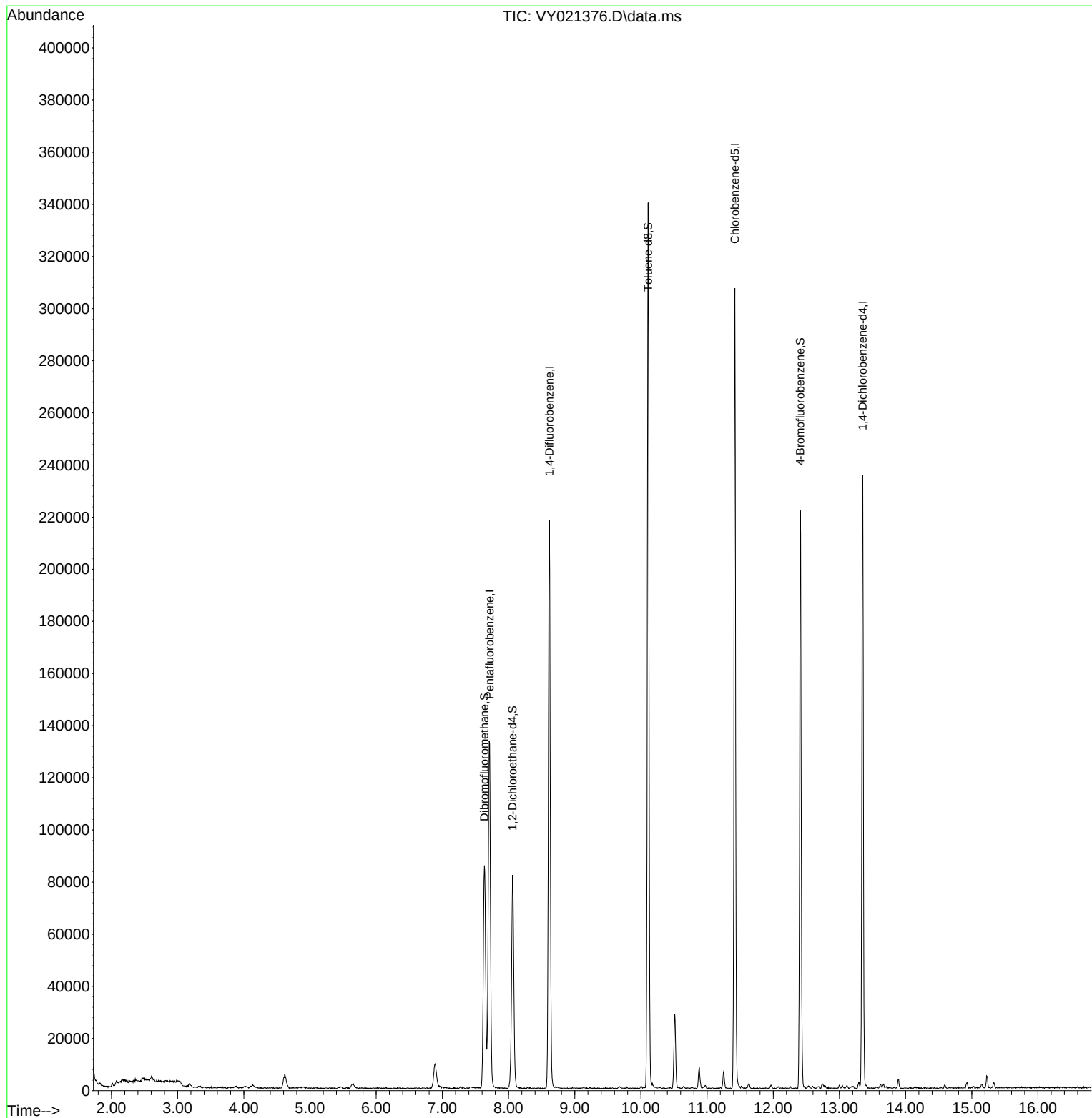
Target Compounds	Qvalue

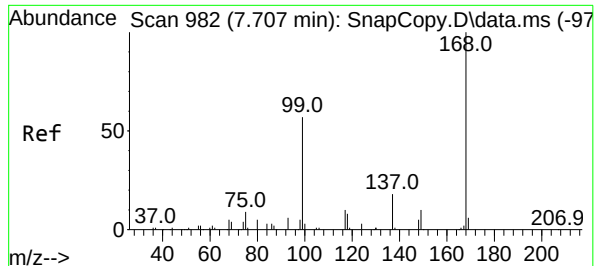
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021376.D
Acq On : 28 Feb 2025 10:59
Operator : SY/MD
Sample : VY0228SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0228SBL01

Quant Time: Feb 28 22:18:21 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

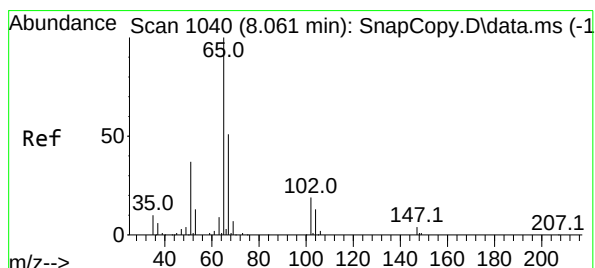
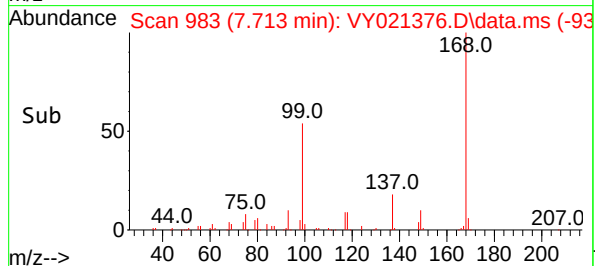
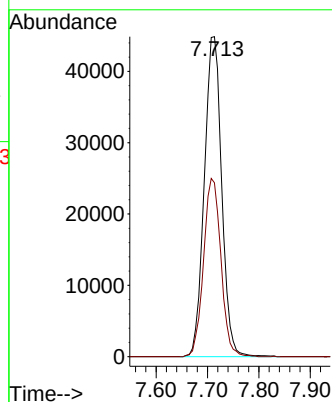
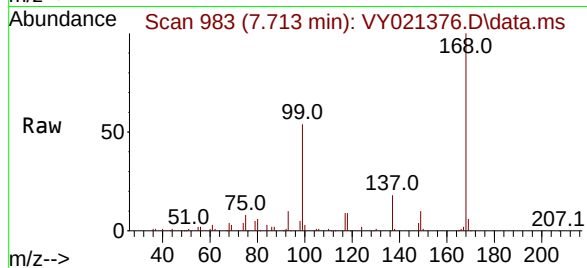




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 91
Delta R.T. 0.006 min
Lab File: VY021376.D
Acq: 28 Feb 2025 10:59

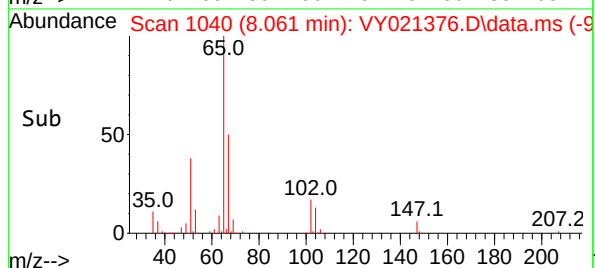
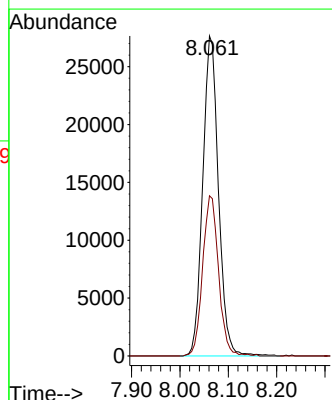
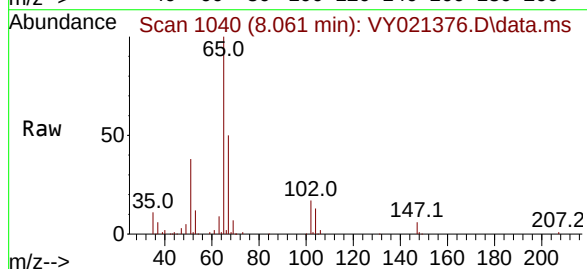
Instrument :
MSVOA_Y
ClientSampleId :
VY0228SBL01

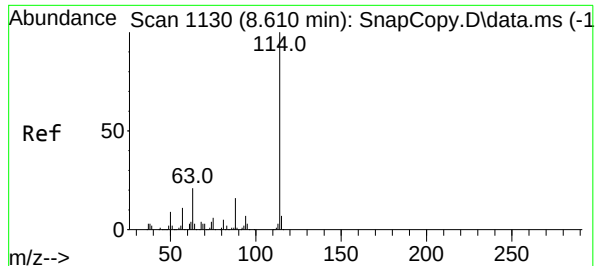
Tgt Ion:168 Resp: 105534
Ion Ratio Lower Upper
168 100
99 54.4 47.1 70.7



#33
1,2-Dichloroethane-d4
Concen: 52.201 ug/l
RT: 8.061 min Scan# 1040
Delta R.T. 0.000 min
Lab File: VY021376.D
Acq: 28 Feb 2025 10:59

Tgt Ion: 65 Resp: 62494
Ion Ratio Lower Upper
65 100
67 50.7 0.0 103.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VY021376.D

Acq: 28 Feb 2025 10:59

Instrument :

MSVOA_Y

ClientSampleId :

VY0228SBL01

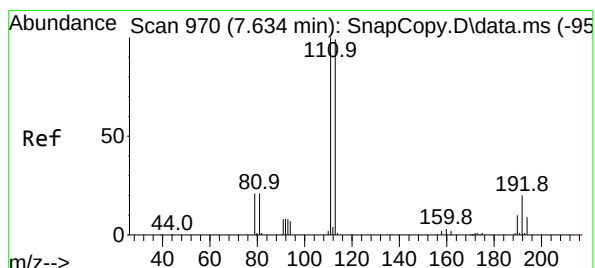
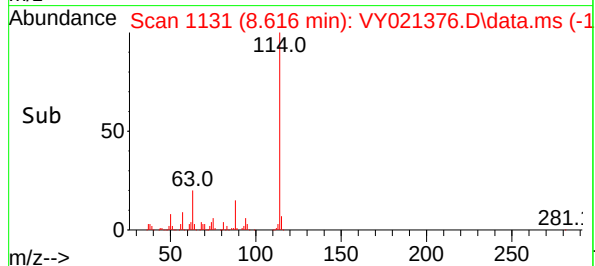
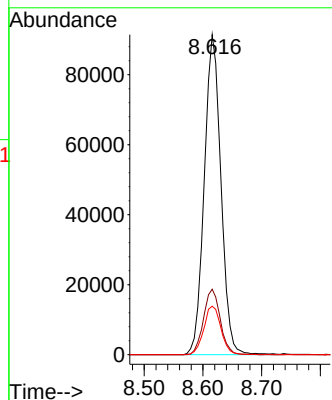
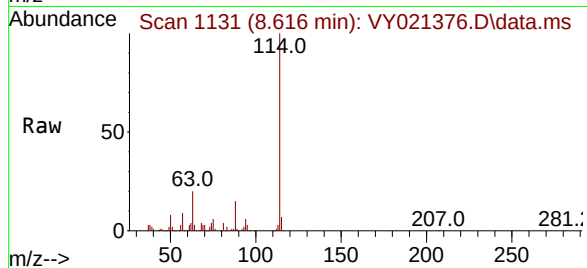
Tgt Ion:114 Resp: 180558

Ion Ratio Lower Upper

114 100

63 20.5 0.0 42.2

88 15.2 0.0 29.8



#35

Dibromofluoromethane

Concen: 52.007 ug/l

RT: 7.634 min Scan# 970

Delta R.T. 0.000 min

Lab File: VY021376.D

Acq: 28 Feb 2025 10:59

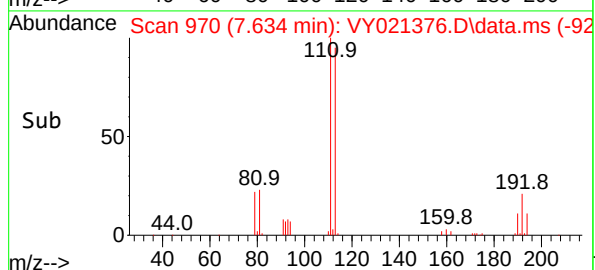
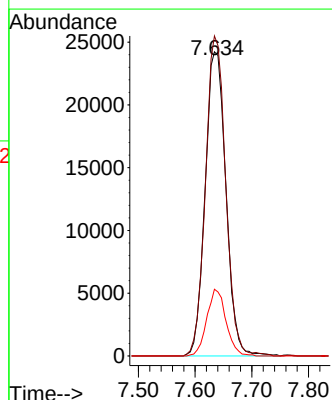
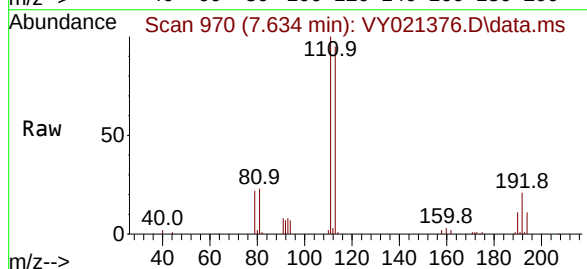
Tgt Ion:113 Resp: 61564

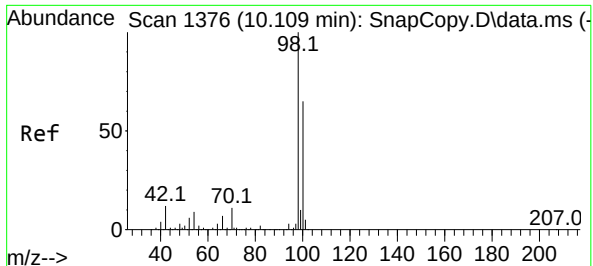
Ion Ratio Lower Upper

113 100

111 102.4 81.0 121.6

192 20.3 15.8 23.8

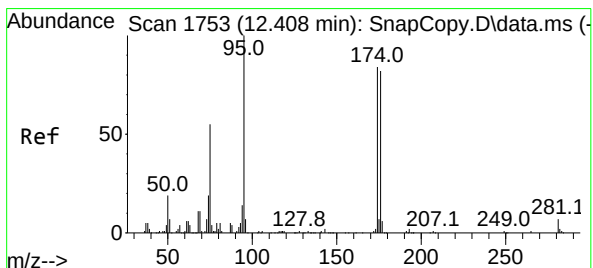
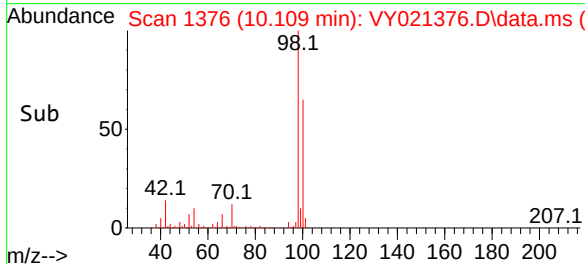
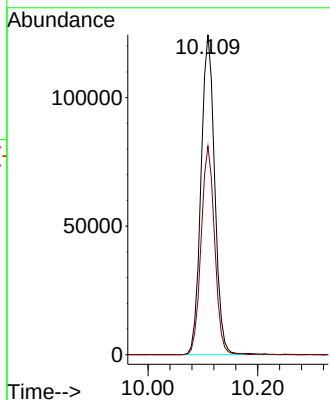
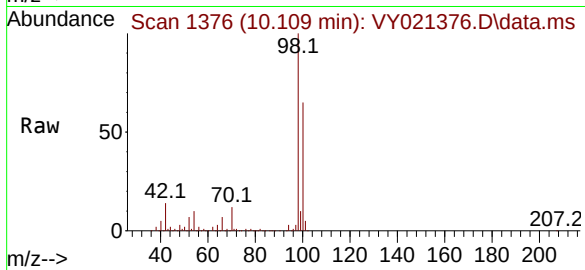




#50
Toluene-d8
Concen: 47.148 ug/l
RT: 10.109 min Scan# 11
Delta R.T. 0.006 min
Lab File: VY021376.D
Acq: 28 Feb 2025 10:59

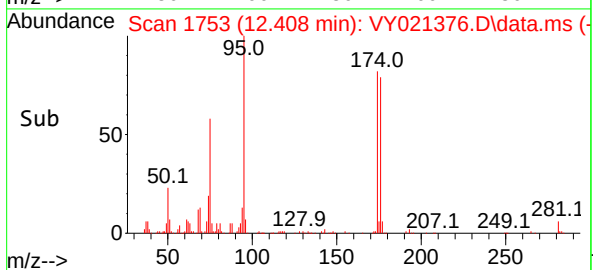
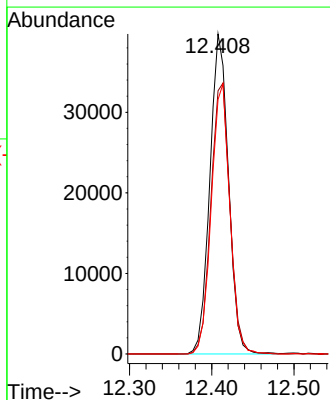
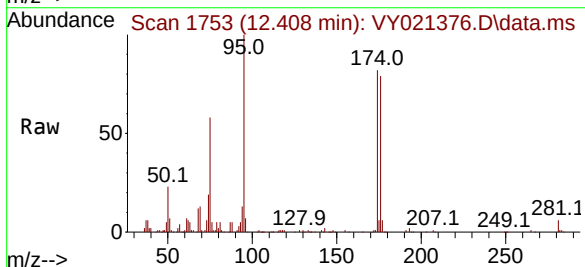
Instrument :
MSVOA_Y
ClientSampleId :
VY0228SBL01

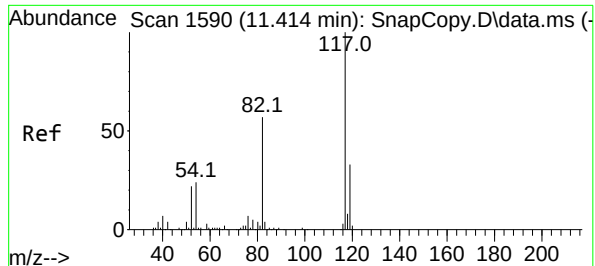
Tgt Ion: 98 Resp: 215695
Ion Ratio Lower Upper
98 100
100 64.2 52.4 78.6



#62
4-Bromofluorobenzene
Concen: 40.717 ug/l
RT: 12.408 min Scan# 1753
Delta R.T. 0.000 min
Lab File: VY021376.D
Acq: 28 Feb 2025 10:59

Tgt Ion: 95 Resp: 62690
Ion Ratio Lower Upper
95 100
174 86.5 0.0 168.0
176 83.6 0.0 162.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY021376.D

Acq: 28 Feb 2025 10:59

Instrument :

MSVOA_Y

ClientSampleId :

VY0228SBL01

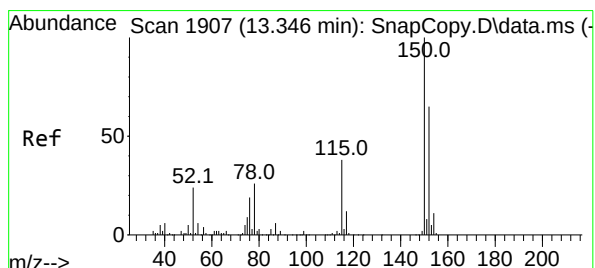
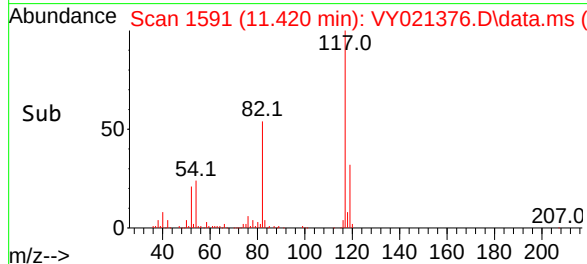
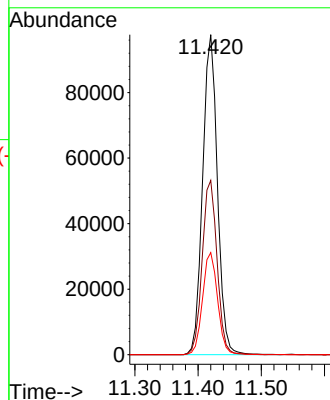
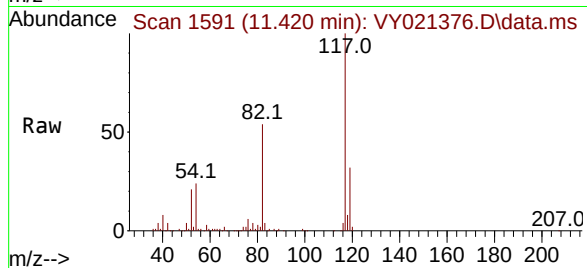
Tgt Ion:117 Resp: 159029

Ion Ratio Lower Upper

117 100

82 54.5 46.2 69.4

119 31.9 24.9 37.3



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.353 min Scan# 1908

Delta R.T. 0.006 min

Lab File: VY021376.D

Acq: 28 Feb 2025 10:59

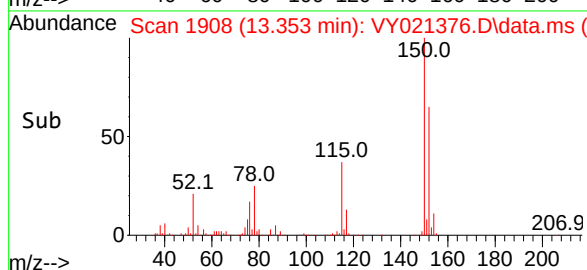
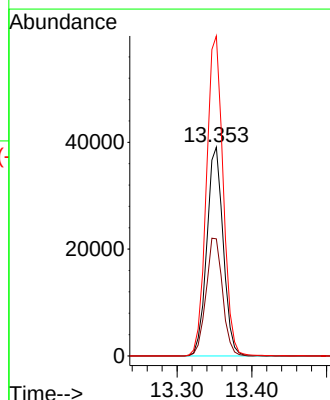
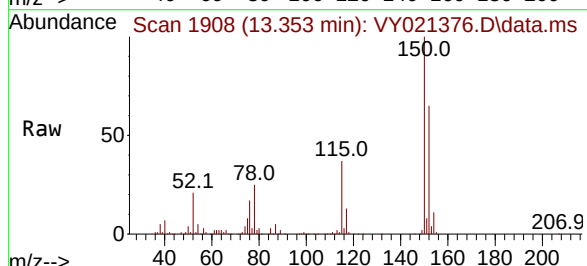
Tgt Ion:152 Resp: 59388

Ion Ratio Lower Upper

152 100

115 57.1 29.3 88.0

150 156.4 0.0 347.4



Report of Analysis

Client:	G Environmental		Date Collected:	
Project:	Fisal		Date Received:	
Client Sample ID:	VX0305MBS01		SDG No.:	Q1448
Lab Sample ID:	VX0305MBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100	uL	Test:	VOCMS Group2
GC Column:	DB-624UI	ID : 0.18	Level :	MED
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045131.D	1		03/05/25 10:53	VX030525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	1600		120	500	ug/Kg
75-01-4	Vinyl Chloride	1700		77.0	500	ug/Kg
74-83-9	Bromomethane	1600		100	500	ug/Kg
75-00-3	Chloroethane	1400		100	500	ug/Kg
75-65-0	Tert butyl alcohol	7600		1600	2500	ug/Kg
75-35-4	1,1-Dichloroethene	1700		78.0	500	ug/Kg
67-64-1	Acetone	8500		620	2500	ug/Kg
75-15-0	Carbon Disulfide	1500		130	500	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1800		67.0	500	ug/Kg
75-09-2	Methylene Chloride	1700		340	1000	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1800		84.0	500	ug/Kg
75-34-3	1,1-Dichloroethane	1700		63.0	500	ug/Kg
78-93-3	2-Butanone	9100		570	2500	ug/Kg
56-23-5	Carbon Tetrachloride	1800		87.0	500	ug/Kg
156-59-2	cis-1,2-Dichloroethene	1800		61.0	500	ug/Kg
67-66-3	Chloroform	1800		67.0	500	ug/Kg
71-55-6	1,1,1-Trichloroethane	1700		78.0	500	ug/Kg
71-43-2	Benzene	1800		72.0	500	ug/Kg
107-06-2	1,2-Dichloroethane	1800		61.0	500	ug/Kg
79-01-6	Trichloroethene	1800		75.0	500	ug/Kg
78-87-5	1,2-Dichloropropane	1800		66.0	500	ug/Kg
75-27-4	Bromodichloromethane	1800		56.0	500	ug/Kg
108-10-1	4-Methyl-2-Pentanone	9400		440	2500	ug/Kg
108-88-3	Toluene	1900		67.0	500	ug/Kg
10061-02-6	t-1,3-Dichloropropene	1800		60.0	500	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	1900		57.0	500	ug/Kg
79-00-5	1,1,2-Trichloroethane	1800		84.0	500	ug/Kg
591-78-6	2-Hexanone	9500		480	2500	ug/Kg
124-48-1	Dibromochloromethane	1800		65.0	500	ug/Kg
127-18-4	Tetrachloroethene	1800		89.0	500	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	
Project:	Fisal	Date Received:	
Client Sample ID:	VX0305MBS01	SDG No.:	Q1448
Lab Sample ID:	VX0305MBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOCMS Group2
GC Column:	DB-624UI ID : 0.18	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045131.D	1		03/05/25 10:53	VX030525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	1800		74.0	500	ug/Kg
100-41-4	Ethyl Benzene	1800		62.0	500	ug/Kg
179601-23-1	m/p-Xylenes	3800		140	1000	ug/Kg
95-47-6	o-Xylene	1900		70.0	500	ug/Kg
100-42-5	Styrene	1900		60.0	500	ug/Kg
75-25-2	Bromoform	1700		81.0	500	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1800		110	500	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.4		70 (63) - 130 (155)	97%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		70 (70) - 130 (134)	99%	SPK: 50
2037-26-5	Toluene-d8	50.5		70 (74) - 130 (123)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.2		70 (38) - 130 (136)	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	93500	5.544			
540-36-3	1,4-Difluorobenzene	165000	6.757			
3114-55-4	Chlorobenzene-d5	145000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	66100	12.018			

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_X\Data\VX030525\
 Data File : VX045131.D
 Acq On : 05 Mar 2025 10:53
 Operator : JC/MD
 Sample : VX0305MBS01
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_X/MEOH
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0305MBS01

Manual Integrations
 APPROVED

Reviewed By :John Carlone 03/06/2025
 Supervised By :Mahesh Dadoda 03/06/2025

Quant Time: Mar 06 01:01:03 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	5.544	168	93506	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	165212	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	145087	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	66055	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	5.946	65	71944	48.371	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	96.740%
35) Dibromofluoromethane	5.379	113	54636	49.456	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	98.920%
50) Toluene-d8	8.647	98	202108	50.464	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	100.920%
62) 4-Bromofluorobenzene	11.079	95	66609	50.190	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	=	100.380%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.166	85	20734	17.616	ug/l	97
3) Chloromethane	1.307	50	22972	15.948	ug/l	94
4) Vinyl Chloride	1.374	62	23869	16.704	ug/l	98
5) Bromomethane	1.593	94	8892	15.830	ug/l	99
6) Chloroethane	1.660	64	9424	14.298	ug/l	97
7) Trichlorofluoromethane	1.861	101	32881	17.382	ug/l	99
8) Diethyl Ether	2.136	74	12473	16.858	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.312	101	20190	18.578	ug/l	96
10) Methyl Iodide	2.441	142	22902	16.863	ug/l	98
11) Tert butyl alcohol	3.001	59	21510	76.350	ug/l	99
12) 1,1-Dichloroethene	2.300	96	19681	17.129	ug/l	99
13) Acrolein	2.239	56	32835	100.823	ug/l	99
14) Allyl chloride	2.654	41	36905	18.044	ug/l	99
15) Acrylonitrile	3.068	53	66561	88.153	ug/l	99
16) Acetone	2.392	43	58683	85.037	ug/l	99
17) Carbon Disulfide	2.495	76	47213	15.428	ug/l	99
18) Methyl Acetate	2.703	43	31655	19.068	ug/l	100
19) Methyl tert-butyl Ether	3.117	73	67809	17.591	ug/l	100
20) Methylene Chloride	2.782	84	23516	17.203	ug/l	97
21) trans-1,2-Dichloroethene	3.081	96	20034	17.649	ug/l	88
22) Diisopropyl ether	3.763	45	73985	17.787	ug/l	92
23) Vinyl Acetate	3.721	43	310450	89.436	ug/l	99
24) 1,1-Dichloroethane	3.599	63	40586	17.410	ug/l	98
25) 2-Butanone	4.568	43	94768	91.233	ug/l	96
26) 2,2-Dichloropropane	4.465	77	26863	24.568	ug/l	97
27) cis-1,2-Dichloroethene	4.483	96	25211	17.992	ug/l	98
28) Bromochloromethane	4.897	49	23685	21.316	ug/l	99
29) Tetrahydrofuran	5.007	42	61224	87.767	ug/l	99
30) Chloroform	5.086	83	40536	17.501	ug/l	99
31) Cyclohexane	5.464	56	35931	17.756	ug/l	99
32) 1,1,1-Trichloroethane	5.373	97	31868	17.035	ug/l	98
36) 1,1-Dichloropropene	5.684	75	25987	17.153	ug/l	97
37) Ethyl Acetate	4.721	43	34867	17.860	ug/l	98
38) Carbon Tetrachloride	5.666	117	27031	17.574	ug/l	99
39) Methylcyclohexane	7.373	83	35762	19.700	ug/l	99
40) Benzene	6.031	78	87502	18.290	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
 Data File : VX045131.D
 Acq On : 05 Mar 2025 10:53
 Operator : JC/MD
 Sample : VX0305MBS01
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_X/MEOH
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0305MBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 03/06/2025
 Supervised By : Mahesh Dadoda 03/06/2025

Quant Time: Mar 06 01:01:03 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
 Quant Title : SW846 8260
 QLast Update : Fri Feb 28 06:45:16 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	18762	17.774	ug/l	95
42) 1,2-Dichloroethane	6.086	62	31863	18.495	ug/l	99
43) Isopropyl Acetate	6.342	43	51757	17.929	ug/l	100
44) Trichloroethene	7.123	130	20398	18.158	ug/l	97
45) 1,2-Dichloropropane	7.427	63	22358	18.177	ug/l	97
46) Dibromomethane	7.580	93	16265	18.708	ug/l	99
47) Bromodichloromethane	7.818	83	31038	18.201	ug/l	94
48) Methyl methacrylate	7.696	41	26394	18.225	ug/l	99
49) 1,4-Dioxane	7.671	88	11411	373.525	ug/l	99
51) 4-Methyl-2-Pentanone	8.574	43	182039	93.917	ug/l	100
52) Toluene	8.714	92	52472	18.694	ug/l	100
53) t-1,3-Dichloropropene	8.976	75	26155	18.346	ug/l	92
54) cis-1,3-Dichloropropene	8.366	75	31173	18.751	ug/l	95
55) 1,1,2-Trichloroethane	9.153	97	21140	18.294	ug/l	98
56) Ethyl methacrylate	9.116	69	31086	17.698	ug/l	96
57) 1,3-Dichloropropane	9.305	76	37324	18.664	ug/l	98
58) 2-Chloroethyl Vinyl ether	8.238	63	87774	102.440	ug/l	98
59) 2-Hexanone	9.433	43	133626	95.150	ug/l	98
60) Dibromochloromethane	9.518	129	21747	17.999	ug/l	99
61) 1,2-Dibromoethane	9.610	107	21480	18.620	ug/l	96
64) Tetrachloroethene	9.269	164	17110	18.413	ug/l	96
65) Chlorobenzene	10.079	112	56494	18.402	ug/l	97
66) 1,1,1,2-Tetrachloroethane	10.159	131	17528	17.144	ug/l	100
67) Ethyl Benzene	10.189	91	98772	18.464	ug/l	99
68) m/p-Xylenes	10.299	106	74954	38.276	ug/l	99
69) o-Xylene	10.640	106	36609	18.536	ug/l	98
70) Styrene	10.652	104	59546	18.633	ug/l	100
71) Bromoform	10.799	173	13176	17.090	ug/l #	99
73) Isopropylbenzene	10.957	105	93801	18.193	ug/l	99
74) N-amyl acetate	10.841	43	42414	17.532	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.213	83	33942	17.940	ug/l	98
76) 1,2,3-Trichloropropane	11.238	75	29547m	19.218	ug/l	
77) Bromobenzene	11.195	156	21552	17.717	ug/l	99
78) n-propylbenzene	11.305	91	106185	18.232	ug/l	99
79) 2-Chlorotoluene	11.360	91	65081	17.546	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	76316	18.306	ug/l	99
81) trans-1,4-Dichloro-2-b...	11.018	75	7305	16.260	ug/l	87
82) 4-Chlorotoluene	11.451	91	72035	17.819	ug/l	99
83) tert-Butylbenzene	11.713	119	76247	17.801	ug/l	99
84) 1,2,4-Trimethylbenzene	11.750	105	76231	18.173	ug/l	98
85) sec-Butylbenzene	11.890	105	94189	18.357	ug/l	100
86) p-Isopropyltoluene	12.006	119	78399	18.907	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	39224	18.075	ug/l	99
88) 1,4-Dichlorobenzene	12.042	146	39547	18.013	ug/l	97
89) n-Butylbenzene	12.329	91	68548	19.194	ug/l	99
90) Hexachloroethane	12.536	117	12573	16.764	ug/l	97
91) 1,2-Dichlorobenzene	12.335	146	40732	18.711	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	6381	17.312	ug/l	99
93) 1,2,4-Trichlorobenzene	13.585	180	23180	18.700	ug/l	99
94) Hexachlorobutadiene	13.725	225	9885	19.451	ug/l	99
95) Naphthalene	13.774	128	88361	18.554	ug/l	99
96) 1,2,3-Trichlorobenzene	13.957	180	24909	19.048	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030525\
Data File : VX045131.D
Acq On : 05 Mar 2025 10:53
Operator : JC/MD
Sample : VX0305MBS01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_X/MEOH
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0305MBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/06/2025
Supervised By :Mahesh Dadoda 03/06/2025

Quant Time: Mar 06 01:01:03 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X022825W.M
Quant Title : SW846 8260
QLast Update : Fri Feb 28 06:45:16 2025
Response via : Initial Calibration

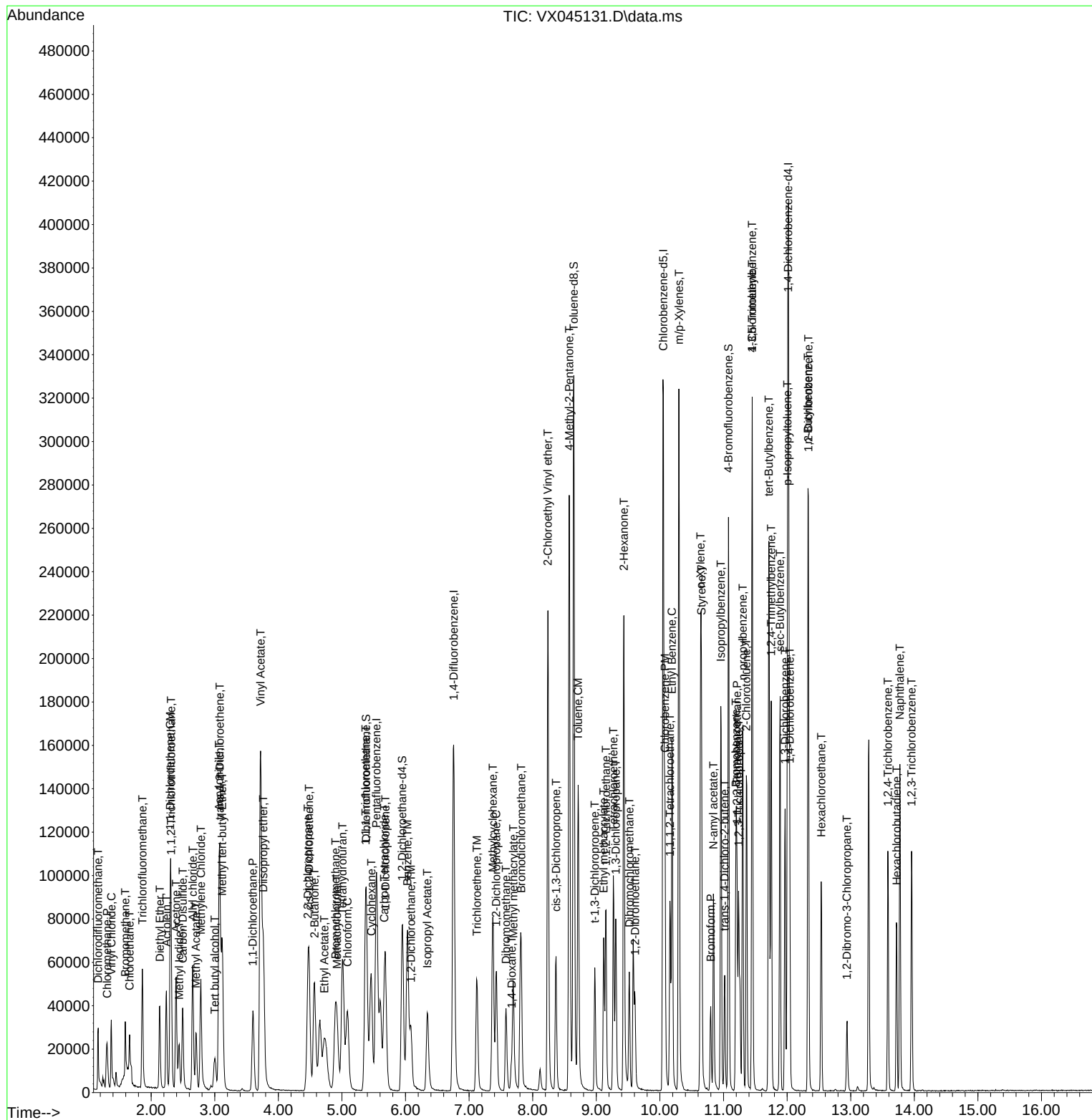
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_X
ClientSampleId :
VX0305MBS01

Manual Integrations

Reviewed By :John Carlone 03/06/2025
Supervised By :Mahesh Dadoda 03/06/2025



Report of Analysis

Client:	G Environmental	Date Collected:	
Project:	Fisal	Date Received:	
Client Sample ID:	VY0227SBS01	SDG No.:	Q1448
Lab Sample ID:	VY0227SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5	Units:	g
Soil Aliquot Vol:			uL
GC Column:	RXI-624	Final Vol:	5000
Prep Method :	ID : 0.25	Test:	VOCMS Group2
		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021348.D	1		02/27/25 11:18	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	18.5		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	19.3		0.77	5.00	ug/Kg
74-83-9	Bromomethane	19.1		1.00	5.00	ug/Kg
75-00-3	Chloroethane	19.9		1.00	5.00	ug/Kg
75-65-0	Tert butyl alcohol	88.9		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	19.9		0.78	5.00	ug/Kg
67-64-1	Acetone	110		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.5		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	19.1		0.67	5.00	ug/Kg
75-09-2	Methylene Chloride	19.9		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	19.6		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	19.5		0.63	5.00	ug/Kg
78-93-3	2-Butanone	97.4		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.9		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	19.5		0.61	5.00	ug/Kg
67-66-3	Chloroform	20.1		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	20.0		0.78	5.00	ug/Kg
71-43-2	Benzene	19.9		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.3		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	20.0		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.8		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.2		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	92.0		4.40	25.0	ug/Kg
108-88-3	Toluene	20.2		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.5		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	19.4		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	20.1		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	95.9		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	19.8		0.65	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.9		0.89	5.00	ug/Kg

Report of Analysis

Client:	G Environmental	Date Collected:	
Project:	Fisal	Date Received:	
Client Sample ID:	VY0227SBS01	SDG No.:	Q1448
Lab Sample ID:	VY0227SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021348.D	1		02/27/25 11:18	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	19.8		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.1		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	40.4		1.40	10.0	ug/Kg
95-47-6	o-Xylene	19.8		0.70	5.00	ug/Kg
100-42-5	Styrene	19.8		0.60	5.00	ug/Kg
75-25-2	Bromoform	19.9		0.81	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	18.9		1.10	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.1		70 (63) - 130 (155)	102%	SPK: 50
1868-53-7	Dibromofluoromethane	52.3		70 (70) - 130 (134)	105%	SPK: 50
2037-26-5	Toluene-d8	52.3		70 (74) - 130 (123)	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.4		70 (38) - 130 (136)	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	200000	7.707			
540-36-3	1,4-Difluorobenzene	312000	8.616			
3114-55-4	Chlorobenzene-d5	272000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	138000	13.346			

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\VY022725\
 Data File : VY021348.D
 Acq On : 27 Feb 2025 11:18
 Operator : SY/MD
 Sample : VY0227SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0227SBS01

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 02/28/2025
 Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:40:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	199987	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	311959	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	272418	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	138215	50.000	ug/l	0.00

02/28/2025
 Supervised By :Semsettin
 Yesilyurt

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	116027	51.143	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 102.280%	
35) Dibromofluoromethane	7.628	113	106867	52.252	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 104.500%	
50) Toluene-d8	10.103	98	413664	52.334	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	= 104.660%	
62) 4-Bromofluorobenzene	12.408	95	139307	52.368	ug/l	0.00
Spiked Amount	50.000	Range	30 - 143	Recovery	= 104.740%	

02/28/2025

Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.861	85	37086	19.559	ug/l	97
3) Chloromethane	2.068	50	45372	18.528	ug/l	98
4) Vinyl Chloride	2.202	62	46452	19.327	ug/l	97
5) Bromomethane	2.586	94	30476	19.081	ug/l	99
6) Chloroethane	2.733	64	29673	19.908	ug/l	98
7) Trichlorofluoromethane	3.056	101	73497	20.248	ug/l	99
8) Diethyl Ether	3.452	74	20917	19.199	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.818	101	42936	20.431	ug/l	99
10) Methyl Iodide	4.001	142	41447	18.746	ug/l	100
11) Tert butyl alcohol	4.860	59	15512	88.893	ug/l	97
12) 1,1-Dichloroethene	3.787	96	39988	19.872	ug/l	94
13) Acrolein	3.647	56	22410	167.586	ug/l	95
14) Allyl chloride	4.379	41	67291	18.861	ug/l	99
15) Acrylonitrile	5.055	53	44168	91.694	ug/l	98
16) Acetone	3.866	43	46430	106.690	ug/l	99
17) Carbon Disulfide	4.104	76	123567	18.493	ug/l	100
18) Methyl Acetate	4.385	43	19413	18.253	ug/l	97
19) Methyl tert-butyl Ether	5.116	73	101763	19.141	ug/l	99
20) Methylene Chloride	4.616	84	46825	19.898	ug/l	97
21) trans-1,2-Dichloroethene	5.110	96	43373	19.580	ug/l	97
22) Diisopropyl ether	6.019	45	143470	19.433	ug/l	98
23) Vinyl Acetate	5.958	43	413611	93.754	ug/l	99
24) 1,1-Dichloroethane	5.909	63	81302	19.539	ug/l	98
25) 2-Butanone	6.890	43	63968	97.394	ug/l	99
26) 2,2-Dichloropropane	6.878	77	75215	19.921	ug/l	100
27) cis-1,2-Dichloroethene	6.890	96	49301	19.490	ug/l	99
28) Bromochloromethane	7.244	49	34908	18.960	ug/l	99
29) Tetrahydrofuran	7.262	42	39410	91.797	ug/l	99
30) Chloroform	7.421	83	84823	20.118	ug/l	98
31) Cyclohexane	7.701	56	74866	18.717	ug/l	96
32) 1,1,1-Trichloroethane	7.616	97	76848	20.024	ug/l	98
36) 1,1-Dichloropropene	7.835	75	60971	19.846	ug/l	99
37) Ethyl Acetate	6.988	43	28033	18.344	ug/l	97
38) Carbon Tetrachloride	7.817	117	68822	19.927	ug/l	98
39) Methylcyclohexane	9.109	83	74844	19.261	ug/l	97
40) Benzene	8.079	78	180639	19.891	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
 Data File : VY021348.D
 Acq On : 27 Feb 2025 11:18
 Operator : SY/MD
 Sample : VY0227SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0227SBS01

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 02/28/2025
 Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:40:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.238	41	17060m	19.967	ug/l	02/28/2025 Supervised By :Semsettin Yesilyurt
42) 1,2-Dichloroethane	8.158	62	52273	20.288	ug/l	99
43) Isopropyl Acetate	8.195	43	54717	18.499	ug/l	99
44) Trichloroethene	8.866	130	45500	20.012	ug/l	97
45) 1,2-Dichloropropane	9.140	63	43265	19.796	ug/l	96
46) Dibromomethane	9.231	93	23940	20.039	ug/l	100
47) Bromodichloromethane	9.420	83	64230	20.164	ug/l	97
48) Methyl methacrylate	9.219	41	24954	18.041	ug/l	97
49) 1,4-Dioxane	9.225	88	4987	375.432	ug/l	94
51) 4-Methyl-2-Pentanone	9.999	43	139296	91.997	ug/l	99
52) Toluene	10.170	92	114108	20.226	ug/l	99
53) t-1,3-Dichloropropene	10.390	75	56809	19.466	ug/l	98
54) cis-1,3-Dichloropropene	9.853	75	66736	19.370	ug/l	98
55) 1,1,2-Trichloroethane	10.573	97	31323	20.127	ug/l	98
56) Ethyl methacrylate	10.438	69	41028	19.079	ug/l	97
57) 1,3-Dichloropropane	10.713	76	54720	20.037	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.707	63	96301	93.300	ug/l	99
59) 2-Hexanone	10.762	43	95328	95.864	ug/l	100
60) Dibromochloromethane	10.914	129	41937	19.786	ug/l	99
61) 1,2-Dibromoethane	11.012	107	28803	19.549	ug/l	98
64) Tetrachloroethene	10.646	164	40978	19.901	ug/l	97
65) Chlorobenzene	11.438	112	121107	19.805	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.518	131	43712	20.415	ug/l	100
67) Ethyl Benzene	11.518	91	217521	20.082	ug/l	98
68) m/p-Xylenes	11.627	106	164558	40.391	ug/l	100
69) o-Xylene	11.956	106	75583	19.803	ug/l	99
70) Styrene	11.969	104	125803	19.811	ug/l	99
71) Bromoform	12.133	173	24353	19.881	ug/l #	99
73) Isopropylbenzene	12.255	105	206205	19.845	ug/l	99
74) N-amyl acetate	12.072	43	47320	17.916	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.505	83	34737	18.942	ug/l	100
76) 1,2,3-Trichloropropane	12.554	75	25901m	18.722	ug/l	
77) Bromobenzene	12.530	156	47735	19.751	ug/l	97
78) n-propylbenzene	12.597	91	251702	19.962	ug/l	100
79) 2-Chlorotoluene	12.682	91	142369	19.674	ug/l	99
80) 1,3,5-Trimethylbenzene	12.737	105	170506	20.007	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	11755	18.885	ug/l	99
82) 4-Chlorotoluene	12.780	91	149541	19.935	ug/l	99
83) tert-Butylbenzene	12.999	119	154147	20.024	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	170349	20.098	ug/l	100
85) sec-Butylbenzene	13.176	105	225031	20.012	ug/l	99
86) p-Isopropyltoluene	13.292	119	187791	20.000	ug/l	100
87) 1,3-Dichlorobenzene	13.292	146	95671	20.011	ug/l	99
88) 1,4-Dichlorobenzene	13.371	146	93607	19.820	ug/l	98
89) n-Butylbenzene	13.621	91	175070	19.813	ug/l	100
90) Hexachloroethane	13.883	117	38407	19.583	ug/l	98
91) 1,2-Dichlorobenzene	13.657	146	82275	19.642	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	5427	18.707	ug/l	98
93) 1,2,4-Trichlorobenzene	14.925	180	46899	18.345	ug/l	99
94) Hexachlorobutadiene	15.029	225	31841	19.783	ug/l	100
95) Naphthalene	15.145	128	73424	17.339	ug/l	99
96) 1,2,3-Trichlorobenzene	15.334	180	40776	18.878	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021348.D
Acq On : 27 Feb 2025 11:18
Operator : SY/MD
Sample : VY0227SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0227SBS01

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 02/28/2025
Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:40:12 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

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

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

02/28/2025
Supervised By :Semsettin
Yesilyurt

02/28/2025

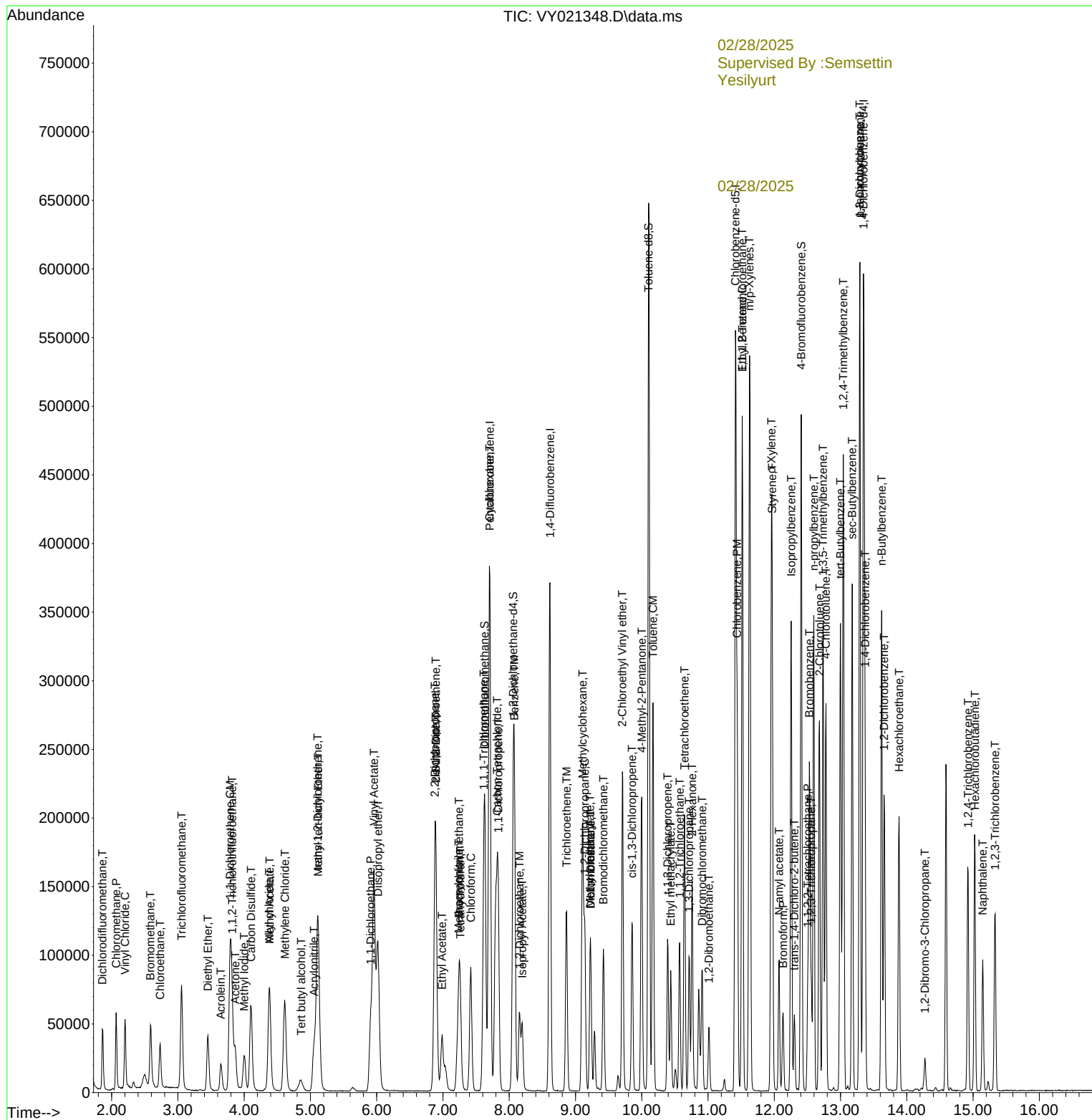
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021348.D
Acq On : 27 Feb 2025 11:18
Operator : SY/MD
Sample : VY02275BS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0227SBS01

Manual Integrations

Reviewed By :Mahesh Dadoda 02/28/2025
Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:40:12 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration



Report of Analysis

Client:	G Environmental		Date Collected:	
Project:	Fisal		Date Received:	
Client Sample ID:	VY0228SBS01		SDG No.:	Q1448
Lab Sample ID:	VY0228SBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021377.D	1		02/28/25 11:32	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	17.7		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	19.3		0.77	5.00	ug/Kg
74-83-9	Bromomethane	20.1		1.00	5.00	ug/Kg
75-00-3	Chloroethane	20.1		1.00	5.00	ug/Kg
75-65-0	Tert butyl alcohol	82.2		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.8		0.78	5.00	ug/Kg
67-64-1	Acetone	77.6		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	17.4		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	18.8		0.67	5.00	ug/Kg
75-09-2	Methylene Chloride	19.1		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	18.4		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	18.2		0.63	5.00	ug/Kg
78-93-3	2-Butanone	83.5		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.5		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	18.7		0.61	5.00	ug/Kg
67-66-3	Chloroform	18.9		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.1		0.78	5.00	ug/Kg
71-43-2	Benzene	19.1		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	19.5		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	19.6		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.0		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	19.7		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	92.3		4.40	25.0	ug/Kg
108-88-3	Toluene	19.3		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	18.6		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	18.7		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	19.7		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	91.3		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.4		0.65	5.00	ug/Kg
127-18-4	Tetrachloroethene	20.4		0.89	5.00	ug/Kg



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

Report of Analysis

Client:	G Environmental		Date Collected:	
Project:	Fisal		Date Received:	
Client Sample ID:	VY0228SBS01		SDG No.:	Q1448
Lab Sample ID:	VY0228SBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021377.D	1		02/28/25 11:32	VY022825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	19.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.1		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	39.2		1.40	10.0	ug/Kg
95-47-6	o-Xylene	19.4		0.70	5.00	ug/Kg
100-42-5	Styrene	19.6		0.60	5.00	ug/Kg
75-25-2	Bromoform	20.2		0.81	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	19.2		1.10	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	43.2		70 (63) - 130 (155)	86%	SPK: 50
1868-53-7	Dibromofluoromethane	45.7		70 (70) - 130 (134)	91%	SPK: 50
2037-26-5	Toluene-d8	44.3		70 (74) - 130 (123)	89%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.7		70 (38) - 130 (136)	87%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	169000	7.707			
540-36-3	1,4-Difluorobenzene	257000	8.616			
3114-55-4	Chlorobenzene-d5	224000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	115000	13.346			

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\VY022825\
 Data File : VY021377.D
 Acq On : 28 Feb 2025 11:32
 Operator : SY/MD
 Sample : VY0228SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0228SBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 03/03/2025
 Supervised By : Mahesh Dadoda 03/03/2025

Quant Time: Feb 28 22:18:43 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	168970	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	257471	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	224033	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.346	152	115456	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	82743	43.167	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	86.340%		
35) Dibromofluoromethane	7.640	113	77212	45.742	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	91.480%		
50) Toluene-d8	10.109	98	289320	44.349	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	88.700%		
62) 4-Bromofluorobenzene	12.408	95	95946	43.701	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	87.400%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.867	85	29723	18.553	ug/l	95
3) Chloromethane	2.068	50	36553	17.667	ug/l	99
4) Vinyl Chloride	2.202	62	39280	19.343	ug/l	93
5) Bromomethane	2.592	94	27186	20.145	ug/l	99
6) Chloroethane	2.732	64	25258	20.057	ug/l	98
7) Trichlorofluoromethane	3.056	101	61224	19.963	ug/l	96
8) Diethyl Ether	3.452	74	17417	18.921	ug/l	95
9) 1,1,2-Trichlorotrifluo...	3.812	101	34990	19.706	ug/l	100
10) Methyl Iodide	4.007	142	34422	18.427	ug/l	99
11) Tert butyl alcohol	4.866	59	12120	82.204	ug/l	99
12) 1,1-Dichloroethene	3.793	96	31916	18.772	ug/l	91
13) Acrolein	3.647	56	16459	145.677	ug/l	97
14) Allyl chloride	4.385	41	49721	16.495	ug/l	96
15) Acrylonitrile	5.061	53	36749	90.297	ug/l	99
16) Acetone	3.872	43	28550	77.647	ug/l	94
17) Carbon Disulfide	4.104	76	98237	17.401	ug/l	97
18) Methyl Acetate	4.385	43	16534	18.400	ug/l	94
19) Methyl tert-butyl Ether	5.116	73	84448	18.800	ug/l	100
20) Methylene Chloride	4.616	84	37924	19.074	ug/l	96
21) trans-1,2-Dichloroethene	5.110	96	34397	18.378	ug/l	96
22) Diisopropyl ether	6.018	45	110995	17.794	ug/l	97
23) Vinyl Acetate	5.964	43	324772	87.130	ug/l	98
24) 1,1-Dichloroethane	5.915	63	63844	18.160	ug/l	99
25) 2-Butanone	6.890	43	46319	83.468	ug/l	97
26) 2,2-Dichloropropane	6.890	77	56022	17.561	ug/l	98
27) cis-1,2-Dichloroethene	6.890	96	39898	18.668	ug/l	96
28) Bromochloromethane	7.244	49	27733	17.828	ug/l	92
29) Tetrahydrofuran	7.262	42	31461	86.734	ug/l	97
30) Chloroform	7.421	83	67278	18.886	ug/l	97
31) Cyclohexane	7.701	56	57900	17.133	ug/l	96
32) 1,1,1-Trichloroethane	7.616	97	61837	19.070	ug/l	100
36) 1,1-Dichloropropene	7.835	75	47878	18.883	ug/l	99
37) Ethyl Acetate	6.988	43	22949	18.195	ug/l	98
38) Carbon Tetrachloride	7.817	117	55703	19.541	ug/l	99
39) Methylcyclohexane	9.109	83	58155	18.134	ug/l	97
40) Benzene	8.079	78	143523	19.148	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
 Data File : VY021377.D
 Acq On : 28 Feb 2025 11:32
 Operator : SY/MD
 Sample : VY0228SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0228SBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 03/03/2025
 Supervised By : Mahesh Dadoda 03/03/2025

Quant Time: Feb 28 22:18:43 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.219	41	12586m	17.848	ug/l	
42) 1,2-Dichloroethane	8.158	62	41428	19.481	ug/l	97
43) Isopropyl Acetate	8.195	43	44479	18.220	ug/l	99
44) Trichloroethene	8.865	130	36816	19.619	ug/l	96
45) 1,2-Dichloropropane	9.140	63	34360	19.049	ug/l	99
46) Dibromomethane	9.231	93	19456	19.733	ug/l	97
47) Bromodichloromethane	9.426	83	51835	19.717	ug/l	98
48) Methyl methacrylate	9.219	41	19952	17.477	ug/l	94
49) 1,4-Dioxane	9.231	88	4114	375.255	ug/l	92
51) 4-Methyl-2-Pentanone	9.999	43	115289	92.255	ug/l	100
52) Toluene	10.170	92	89754	19.276	ug/l	99
53) t-1,3-Dichloropropene	10.396	75	44692	18.555	ug/l	96
54) cis-1,3-Dichloropropene	9.853	75	53051	18.657	ug/l	98
55) 1,1,2-Trichloroethane	10.573	97	25241	19.651	ug/l	98
56) Ethyl methacrylate	10.438	69	33119	18.661	ug/l	98
57) 1,3-Dichloropropane	10.719	76	44249	19.632	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.713	63	75597	88.741	ug/l	97
59) 2-Hexanone	10.761	43	74950	91.322	ug/l	100
60) Dibromochloromethane	10.914	129	35624	20.364	ug/l	98
61) 1,2-Dibromoethane	11.011	107	23736	19.519	ug/l	97
64) Tetrachloroethene	10.646	164	34526	20.389	ug/l	98
65) Chlorobenzene	11.444	112	99308	19.747	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.517	131	35523	20.173	ug/l	100
67) Ethyl Benzene	11.524	91	170306	19.119	ug/l	99
68) m/p-Xylenes	11.633	106	131250	39.173	ug/l	98
69) o-Xylene	11.956	106	61033	19.445	ug/l	98
70) Styrene	11.969	104	102541	19.635	ug/l	99
71) Bromoform	12.133	173	20397	20.248	ug/l #	99
73) Isopropylbenzene	12.255	105	164175	18.914	ug/l	100
74) N-amyl acetate	12.072	43	37786	17.127	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	29422	19.206	ug/l	97
76) 1,2,3-Trichloropropane	12.560	75	22194m	19.205	ug/l	
77) Bromobenzene	12.536	156	39235	19.434	ug/l	94
78) n-propylbenzene	12.597	91	196454	18.652	ug/l	98
79) 2-Chlorotoluene	12.682	91	113116	18.713	ug/l	97
80) 1,3,5-Trimethylbenzene	12.737	105	136074	19.114	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.310	75	8873	17.065	ug/l	96
82) 4-Chlorotoluene	12.779	91	115393	18.415	ug/l	98
83) tert-Butylbenzene	12.999	119	119869	18.640	ug/l	100
84) 1,2,4-Trimethylbenzene	13.048	105	135274	19.106	ug/l	99
85) sec-Butylbenzene	13.176	105	176579	18.799	ug/l	99
86) p-Isopropyltoluene	13.292	119	148920	18.987	ug/l	99
87) 1,3-Dichlorobenzene	13.292	146	77744	19.467	ug/l	100
88) 1,4-Dichlorobenzene	13.371	146	76272	19.333	ug/l	99
89) n-Butylbenzene	13.621	91	136569	18.503	ug/l	98
90) Hexachloroethane	13.883	117	30423	18.570	ug/l	97
91) 1,2-Dichlorobenzene	13.663	146	68082	19.458	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.279	75	4491	18.532	ug/l	96
93) 1,2,4-Trichlorobenzene	14.925	180	39259	18.384	ug/l	99
94) Hexachlorobutadiene	15.029	225	25857	19.232	ug/l	99
95) Naphthalene	15.151	128	61755	17.459	ug/l	98
96) 1,2,3-Trichlorobenzene	15.334	180	33733	18.696	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021377.D
Acq On : 28 Feb 2025 11:32
Operator : SY/MD
Sample : VY0228SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0228SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/03/2025
Supervised By :Mahesh Dadoda 03/03/2025

Quant Time: Feb 28 22:18:43 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

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

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

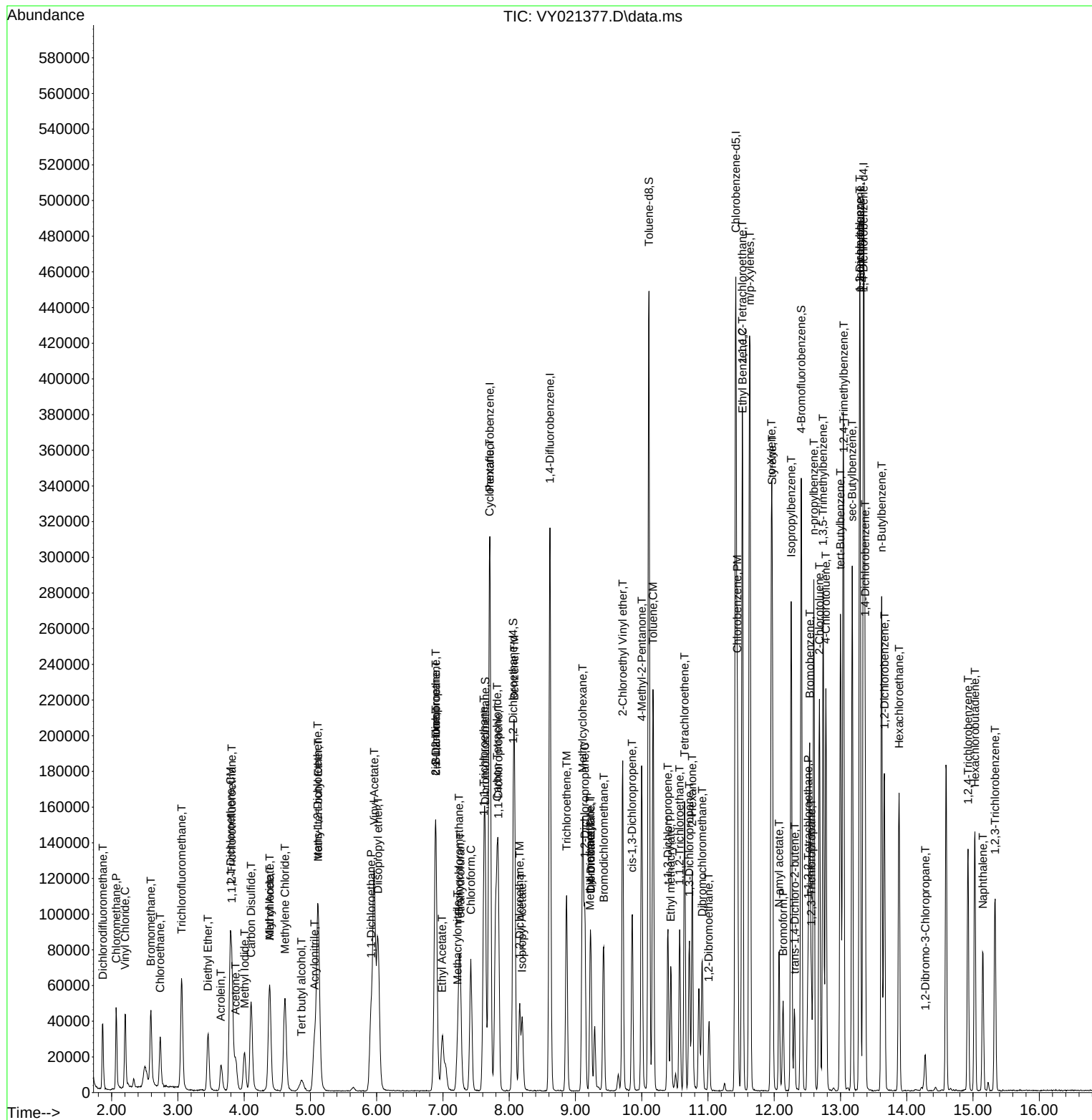
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022825\
Data File : VY021377.D
Acq On : 28 Feb 2025 11:32
Operator : SY/MD
Sample : VY0228SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/soil
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0228SBS01

Manual Integrations
APPROVED

Reviewed By : John Carlone 03/03/2025
Supervised By : Mahesh Dadoda 03/03/2025

Quant Time: Feb 28 22:18:43 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration



Report of Analysis

Client:	G Environmental	Date Collected:	
Project:	Fisal	Date Received:	
Client Sample ID:	VY0227SBSD01	SDG No.:	Q1448
Lab Sample ID:	VY0227SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021349.D	1		02/27/25 11:40	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
74-87-3	Chloromethane	18.3		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.6		0.77	5.00	ug/Kg
74-83-9	Bromomethane	18.6		1.00	5.00	ug/Kg
75-00-3	Chloroethane	19.7		1.00	5.00	ug/Kg
75-65-0	Tert butyl alcohol	96.4		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	19.5		0.78	5.00	ug/Kg
67-64-1	Acetone	100		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.4		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	19.9		0.67	5.00	ug/Kg
75-09-2	Methylene Chloride	20.8		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	19.4		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	19.3		0.63	5.00	ug/Kg
78-93-3	2-Butanone	100		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.8		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	19.7		0.61	5.00	ug/Kg
67-66-3	Chloroform	19.9		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.7		0.78	5.00	ug/Kg
71-43-2	Benzene	19.8		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.4		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	20.0		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.6		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.2		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	99.2		4.40	25.0	ug/Kg
108-88-3	Toluene	19.9		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.7		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	19.5		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	20.3		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	99.7		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.6		0.65	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.7		0.89	5.00	ug/Kg



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

Report of Analysis

Client:	G Environmental		Date Collected:	
Project:	Fisal		Date Received:	
Client Sample ID:	VY0227SBSD01		SDG No.:	Q1448
Lab Sample ID:	VY0227SBSD01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group2
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021349.D	1		02/27/25 11:40	VY022725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-90-7	Chlorobenzene	19.6		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.7		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	39.4		1.40	10.0	ug/Kg
95-47-6	o-Xylene	19.7		0.70	5.00	ug/Kg
100-42-5	Styrene	19.5		0.60	5.00	ug/Kg
75-25-2	Bromoform	19.9		0.81	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.3		1.10	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	45.2		70 (63) - 130 (155)	90%	SPK: 50
1868-53-7	Dibromofluoromethane	45.6		70 (70) - 130 (134)	91%	SPK: 50
2037-26-5	Toluene-d8	45.3		70 (74) - 130 (123)	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		70 (38) - 130 (136)	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	199000	7.707			
540-36-3	1,4-Difluorobenzene	311000	8.61			
3114-55-4	Chlorobenzene-d5	272000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	138000	13.347			

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\VY022725\
 Data File : VY021349.D
 Acq On : 27 Feb 2025 11:40
 Operator : SY/MD
 Sample : VY0227SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0227SBS01

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 02/28/2025
 Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:40:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.707	168	198659	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.610	114	310671	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	272052	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	137933	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	101944	45.236	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	90.480%		
35) Dibromofluoromethane	7.634	113	92849	45.586	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	91.180%		
50) Toluene-d8	10.103	98	356688	45.313	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	90.620%		
62) 4-Bromofluorobenzene	12.402	95	119898	45.259	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	90.520%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.861	85	35262	18.721	ug/l	98
3) Chloromethane	2.068	50	44619	18.343	ug/l	97
4) Vinyl Chloride	2.202	62	44508	18.642	ug/l	99
5) Bromomethane	2.586	94	29567	18.635	ug/l	100
6) Chloroethane	2.733	64	29123	19.670	ug/l	98
7) Trichlorofluoromethane	3.056	101	70391	19.522	ug/l	99
8) Diethyl Ether	3.452	74	21878	20.216	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.812	101	42182	20.206	ug/l	98
10) Methyl Iodide	4.001	142	43590	19.847	ug/l	99
11) Tert butyl alcohol	4.848	59	16710m	96.398	ug/l	
12) 1,1-Dichloroethene	3.787	96	38944	19.483	ug/l	98
13) Acrolein	3.653	56	24700	185.946	ug/l	94
14) Allyl chloride	4.379	41	65599	18.510	ug/l	99
15) Acrylonitrile	5.055	53	47280	98.811	ug/l	99
16) Acetone	3.867	43	44126	102.074	ug/l	98
17) Carbon Disulfide	4.104	76	122176	18.407	ug/l	97
18) Methyl Acetate	4.385	43	20494	19.398	ug/l	97
19) Methyl tert-butyl Ether	5.116	73	105075	19.896	ug/l	97
20) Methylene Chloride	4.616	84	48638	20.806	ug/l	94
21) trans-1,2-Dichloroethene	5.110	96	42797	19.449	ug/l	95
22) Diisopropyl ether	6.012	45	143925	19.625	ug/l	99
23) Vinyl Acetate	5.958	43	422766	96.470	ug/l	99
24) 1,1-Dichloroethane	5.915	63	79851	19.319	ug/l	97
25) 2-Butanone	6.890	43	65440	100.301	ug/l	93
26) 2,2-Dichloropropane	6.878	77	72271	19.269	ug/l	99
27) cis-1,2-Dichloroethene	6.884	96	49527	19.710	ug/l	98
28) Bromochloromethane	7.244	49	36677	20.054	ug/l	98
29) Tetrahydrofuran	7.256	42	42111	98.745	ug/l	99
30) Chloroform	7.415	83	83409	19.915	ug/l	96
31) Cyclohexane	7.695	56	72200	18.172	ug/l	97
32) 1,1,1-Trichloroethane	7.616	97	75049	19.686	ug/l	99
36) 1,1-Dichloropropene	7.835	75	59900	19.578	ug/l	99
37) Ethyl Acetate	6.982	43	29786	19.572	ug/l	98
38) Carbon Tetrachloride	7.817	117	68272	19.849	ug/l	99
39) Methylcyclohexane	9.109	83	74465	19.243	ug/l	96
40) Benzene	8.079	78	179474	19.844	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
 Data File : VY021349.D
 Acq On : 27 Feb 2025 11:40
 Operator : SY/MD
 Sample : VY0227SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0227SBS01

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 02/28/2025
 Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:40:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
 Quant Title : SW846 8260
 QLast Update : Wed Feb 26 02:09:13 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.220	41	15267	17.942	ug/l #	90
42) 1,2-Dichloroethane	8.158	62	52390	20.417	ug/l	99
43) Isopropyl Acetate	8.195	43	58264	19.779	ug/l	99
44) Trichloroethene	8.866	130	45194	19.959	ug/l	100
45) 1,2-Dichloropropane	9.140	63	42605	19.575	ug/l	100
46) Dibromomethane	9.225	93	24136	20.287	ug/l	99
47) Bromodichloromethane	9.420	83	64023	20.183	ug/l	98
48) Methyl methacrylate	9.219	41	27400	19.891	ug/l	99
49) 1,4-Dioxane	9.225	88	5250	396.870	ug/l	95
51) 4-Methyl-2-Pentanone	10.000	43	149583	99.200	ug/l	100
52) Toluene	10.170	92	111889	19.915	ug/l	100
53) t-1,3-Dichloropropene	10.390	75	57123	19.655	ug/l	99
54) cis-1,3-Dichloropropene	9.853	75	66848	19.483	ug/l	98
55) 1,1,2-Trichloroethane	10.573	97	31392	20.255	ug/l	98
56) Ethyl methacrylate	10.438	69	42049	19.635	ug/l	99
57) 1,3-Dichloropropane	10.713	76	55897	20.553	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.707	63	101862	99.097	ug/l	98
59) 2-Hexanone	10.762	43	98713	99.680	ug/l	99
60) Dibromochloromethane	10.908	129	43397	20.559	ug/l	99
61) 1,2-Dibromoethane	11.012	107	29498	20.104	ug/l	99
64) Tetrachloroethene	10.646	164	40481	19.686	ug/l	97
65) Chlorobenzene	11.438	112	119791	19.616	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.518	131	43652	20.414	ug/l	98
67) Ethyl Benzene	11.518	91	213261	19.715	ug/l	99
68) m/p-Xylenes	11.627	106	160355	39.412	ug/l	98
69) o-Xylene	11.957	106	74908	19.653	ug/l	99
70) Styrene	11.969	104	123889	19.536	ug/l	99
71) Bromoform	12.133	173	24357	19.911	ug/l #	95
73) Isopropylbenzene	12.255	105	202320	19.511	ug/l	99
74) N-amyl acetate	12.066	43	50118	19.015	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.505	83	37100	20.272	ug/l	98
76) 1,2,3-Trichloropropane	12.554	75	25467m	18.446	ug/l	
77) Bromobenzene	12.530	156	46970	19.474	ug/l	99
78) n-propylbenzene	12.597	91	244088	19.398	ug/l	100
79) 2-Chlorotoluene	12.682	91	141363	19.575	ug/l	100
80) 1,3,5-Trimethylbenzene	12.737	105	166093	19.529	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.304	75	12177	19.603	ug/l	99
82) 4-Chlorotoluene	12.780	91	146247	19.536	ug/l	100
83) tert-Butylbenzene	12.999	119	150694	19.615	ug/l	99
84) 1,2,4-Trimethylbenzene	13.042	105	168485	19.919	ug/l	99
85) sec-Butylbenzene	13.176	105	220676	19.665	ug/l	99
86) p-Isopropyltoluene	13.292	119	182981	19.528	ug/l	99
87) 1,3-Dichlorobenzene	13.286	146	93913	19.684	ug/l	99
88) 1,4-Dichlorobenzene	13.365	146	92534	19.632	ug/l	99
89) n-Butylbenzene	13.615	91	171802	19.483	ug/l	99
90) Hexachloroethane	13.883	117	37407	19.112	ug/l	99
91) 1,2-Dichlorobenzene	13.657	146	82600	19.760	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.273	75	5991	20.694	ug/l	92
93) 1,2,4-Trichlorobenzene	14.919	180	48418	18.978	ug/l	99
94) Hexachlorobutadiene	15.023	225	30957	19.273	ug/l	99
95) Naphthalene	15.145	128	78577	18.594	ug/l	100
96) 1,2,3-Trichlorobenzene	15.328	180	41048	19.042	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021349.D
Acq On : 27 Feb 2025 11:40
Operator : SY/MD
Sample : VY0227SBSD01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0227SBSD01

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 02/28/2025
Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:40:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration

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

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

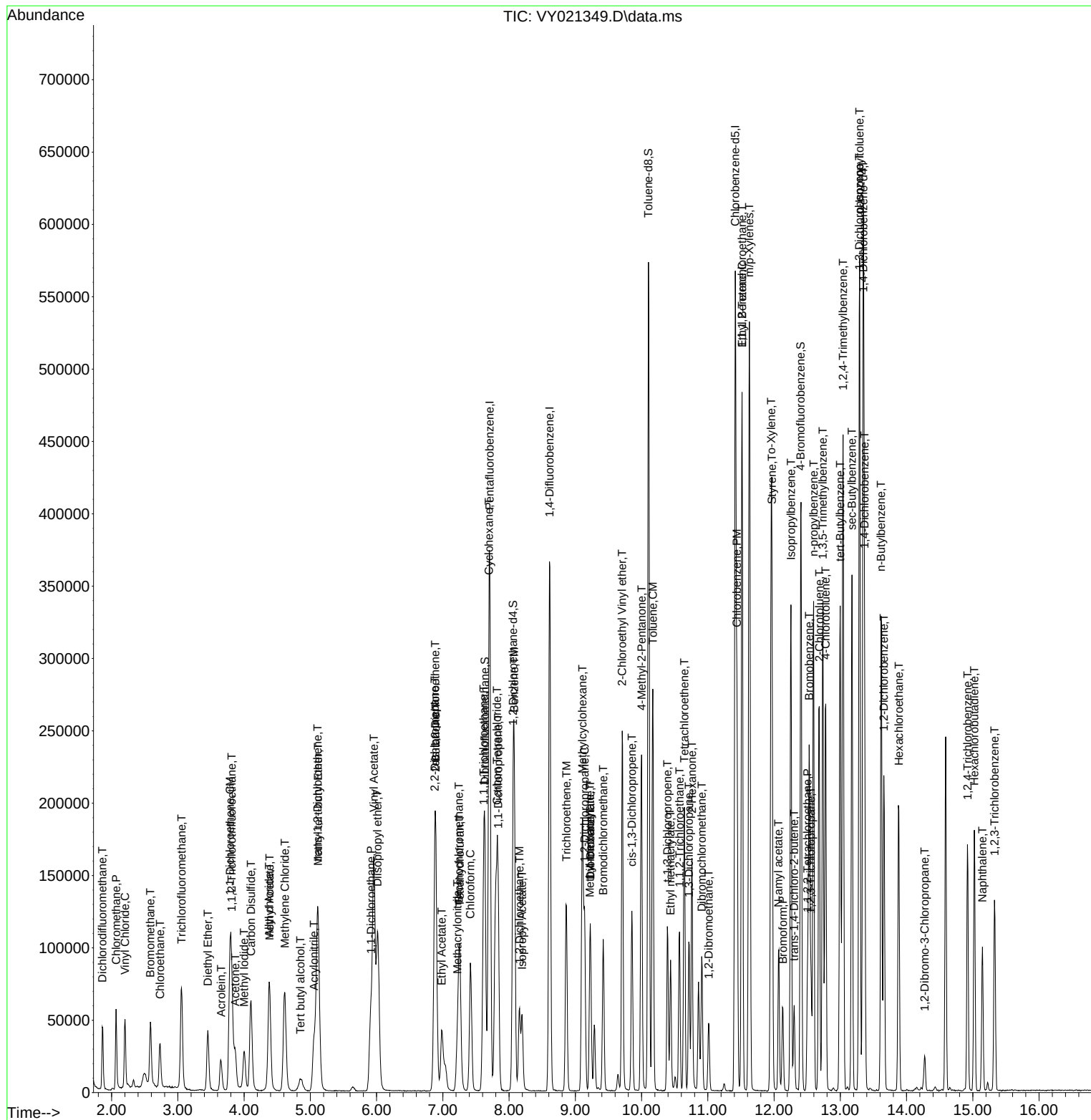
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY022725\
Data File : VY021349.D
Acq On : 27 Feb 2025 11:40
Operator : SY/MD
Sample : VY02275B5D01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0227SBSD01

Manual Integrations

Reviewed By :Mahesh Dadoda 02/28/2025
Supervised By :Semsettin Yesilyurt 02/28/2025

Quant Time: Feb 28 00:40:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y022525S.M
Quant Title : SW846 8260
QLast Update : Wed Feb 26 02:09:13 2025
Response via : Initial Calibration



Manual Integration Report

Sequence:

VX022825

Instrument

MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC001	VX045068.D	1,2,3-Trichloropropane	JOHN	2/28/2025 10:05:09 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC001	VX045068.D	1,4-Dichlorobenzene	JOHN	2/28/2025 10:05:09 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC001	VX045068.D	Carbon Tetrachloride	JOHN	2/28/2025 10:05:09 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC001	VX045068.D	Chloroethane	JOHN	2/28/2025 10:05:09 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC001	VX045068.D	Ethyl Acetate	JOHN	2/28/2025 10:05:09 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC001	VX045068.D	Methacrylonitrile	JOHN	2/28/2025 10:05:09 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC001	VX045068.D	Methyl methacrylate	JOHN	2/28/2025 10:05:09 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC005	VX045069.D	1,2,3-Trichloropropane	JOHN	2/28/2025 10:05:14 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC005	VX045069.D	Tert butyl alcohol	JOHN	2/28/2025 10:05:14 AM	MMDadoda	2/28/2025 11:09:31 AM	Peak Integrated by Software
VSTDICC020	VX045070.D	1,2,3-Trichloropropane	JOHN	2/28/2025 10:05:21 AM	MMDadoda	2/28/2025 11:09:33 AM	Peak Integrated by Software
VSTDICCC050	VX045071.D	1,2,3-Trichloropropane	JOHN	2/28/2025 10:05:25 AM	MMDadoda	2/28/2025 11:09:35 AM	Peak Integrated by Software
VSTDICC100	VX045072.D	1,2,3-Trichloropropane	JOHN	2/28/2025 10:05:30 AM	MMDadoda	2/28/2025 11:09:37 AM	Peak Integrated by Software
VSTDICC150	VX045073.D	1,2,3-Trichloropropane	JOHN	2/28/2025 10:05:33 AM	MMDadoda	2/28/2025 11:09:42 AM	Peak Integrated by Software

Manual Integration Report

Sequence:

VX022825

Instrument

MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICV050	VX045075.D	1,2,3-Trichloropropane	JOHN	2/28/2025 10:05:38 AM	MMDadoda	2/28/2025 11:09:44 AM	Peak Integrated by Software
VSTDCCC050	VX045077.D	1,2,3-Trichloropropane	JOHN	3/3/2025 8:20:45 AM	MMDadoda	3/3/2025 1:49:43 PM	Peak Integrated by Software
VSTDCCC050	VX045077.D	Tert butyl alcohol	JOHN	3/3/2025 8:20:45 AM	MMDadoda	3/3/2025 1:49:43 PM	Peak Integrated by Software
VSTDCCC050	VX045098.D	1,2,3-Trichloropropane	JOHN	3/3/2025 8:20:59 AM	MMDadoda	3/3/2025 1:49:50 PM	Peak Integrated by Software

Manual Integration Report

Sequence:

VX030525

Instrument

MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX045127.D	1,2,3-Trichloropropane	JOHN	3/6/2025 8:19:47 AM	MMDadoda	3/6/2025 2:56:18 PM	Peak Integrated by Software
VX0305MBS01	VX045131.D	1,2,3-Trichloropropane	JOHN	3/6/2025 8:19:56 AM	MMDadoda	3/6/2025 2:56:28 PM	Peak Integrated by Software
VSTDCCC050	VX045153.D	1,2,3-Trichloropropane	JOHN	3/6/2025 8:21:33 AM	MMDadoda	3/6/2025 2:56:19 PM	Peak Integrated by Software

Manual Integration Report

Sequence:

VY022525

Instrument

MSVOA_y

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VY021309.D	1,2,3-Trichloropropane	Romaben	2/26/2025 10:45:25 AM	MMDadoda	2/26/2025 1:44:30 PM	Peak Integrated by Software
VSTDICC005	VY021309.D	Methacrylonitrile	Romaben	2/26/2025 10:45:25 AM	MMDadoda	2/26/2025 1:44:30 PM	Peak Integrated by Software
VSTDICC010	VY021310.D	1,2,3-Trichloropropane	Romaben	2/26/2025 10:45:29 AM	MMDadoda	2/26/2025 1:44:32 PM	Peak Integrated by Software
VSTDICC020	VY021311.D	1,2,3-Trichloropropane	Romaben	2/26/2025 10:45:33 AM	MMDadoda	2/26/2025 1:44:34 PM	Peak Integrated by Software
VSTDICCC050	VY021312.D	1,2,3-Trichloropropane	Romaben	2/26/2025 10:45:52 AM	MMDadoda	2/26/2025 1:44:36 PM	Peak Integrated by Software
VSTDICC150	VY021314.D	1,2,3-Trichloropropane	Romaben	2/26/2025 10:45:40 AM	MMDadoda	2/26/2025 1:44:39 PM	Peak Integrated by Software
VSTDICC100	VY021316.D	1,2,3-Trichloropropane	Romaben	2/26/2025 10:45:43 AM	MMDadoda	2/26/2025 1:44:41 PM	Peak Integrated by Software
VSTDICV050	VY021317.D	1,2,3-Trichloropropane	Romaben	2/26/2025 10:45:47 AM	MMDadoda	2/26/2025 1:44:42 PM	Peak Integrated by Software

Manual Integration Report

Sequence:	VY022725	Instrument	MSVOA_y

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VY021346.D	1,2,3-Trichloropropane	MMDadoda	2/28/2025 11:07:30 AM	SAM	2/28/2025 11:10:54 AM	Peak Integrated by Software
VY0227SBS01	VY021348.D	1,2,3-Trichloropropane	MMDadoda	2/28/2025 11:07:33 AM	SAM	2/28/2025 11:10:55 AM	Peak Integrated by Software
VY0227SBS01	VY021348.D	Methacrylonitrile	MMDadoda	2/28/2025 11:07:33 AM	SAM	2/28/2025 11:10:55 AM	Peak Integrated by Software
VY0227SBSD0 1	VY021349.D	1,2,3-Trichloropropane	MMDadoda	2/28/2025 11:07:34 AM	SAM	2/28/2025 11:10:56 AM	Peak Integrated by Software
VY0227SBSD0 1	VY021349.D	Tert butyl alcohol	MMDadoda	2/28/2025 11:07:34 AM	SAM	2/28/2025 11:10:56 AM	Peak Integrated by Software
VSTDCCC050	VY021373.D	1,2,3-Trichloropropane	MMDadoda	2/28/2025 11:07:40 AM	SAM	2/28/2025 11:10:58 AM	Peak Integrated by Software

Manual Integration Report

Sequence:	VY022825	Instrument	MSVOA_y

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VY021375.D	1,2,3-Trichloropropane	JOHN	3/3/2025 12:11:25 PM	MMDadoda	3/3/2025 1:50:26 PM	Peak Integrated by Software
VY0228SBS01	VY021377.D	1,2,3-Trichloropropane	JOHN	3/3/2025 12:11:30 PM	MMDadoda	3/3/2025 1:50:26 PM	Peak Integrated by Software
VY0228SBS01	VY021377.D	Methacrylonitrile	JOHN	3/3/2025 12:11:30 PM	MMDadoda	3/3/2025 1:50:26 PM	Peak Integrated by Software
VSTDCCC050	VY021394.D	1,2,3-Trichloropropane	JOHN	3/3/2025 12:11:49 PM	MMDadoda	3/3/2025 1:50:32 PM	Peak Integrated by Software
VSTDCCC050	VY021394.D	Methacrylonitrile	JOHN	3/3/2025 12:11:49 PM	MMDadoda	3/3/2025 1:50:32 PM	Peak Integrated by Software

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX022825

Review By	Mahesh Dadoda	Review On	2/28/2025 11:09:50 AM
Supervise By	Semsettin Yesilyurt	Supervise On	2/28/2025 11:11:09 AM
SubDirectory	VX022825	HP Acquire Method	HP Processing Method 82X022825W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP133187,VP133189		
Initial Calibration Stds	VP133194,VP133195,VP133196,VP133197,VP133198,VP133199		
CCC	VP133188,VP133190		
Internal Standard/PEM			
ICV/I.BLK	VP133200		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX045067.D	28 Feb 2025 01:03	JC/MD	Ok
2	VSTDICC001	VX045068.D	28 Feb 2025 01:27	JC/MD	Ok,M
3	VSTDICC005	VX045069.D	28 Feb 2025 02:13	JC/MD	Ok,M
4	VSTDICC020	VX045070.D	28 Feb 2025 02:37	JC/MD	Ok,M
5	VSTDICCC050	VX045071.D	28 Feb 2025 03:00	JC/MD	Ok,M
6	VSTDICC100	VX045072.D	28 Feb 2025 03:23	JC/MD	Ok,M
7	VSTDICC150	VX045073.D	28 Feb 2025 03:47	JC/MD	Ok,M
8	IBLK	VX045074.D	28 Feb 2025 04:10	JC/MD	Ok
9	VSTDICV050	VX045075.D	28 Feb 2025 04:33	JC/MD	Ok,M
10	BFB	VX045076.D	28 Feb 2025 10:03	JC/MD	Ok
11	VSTDCCC050	VX045077.D	28 Feb 2025 10:32	JC/MD	Ok,M
12	VX0228MBL01	VX045078.D	28 Feb 2025 11:00	JC/MD	Ok
13	VX0228WBL01	VX045079.D	28 Feb 2025 11:23	JC/MD	Ok
14	VX0228WBS01	VX045080.D	28 Feb 2025 11:46	JC/MD	Ok,M
15	VX0228WBSD01	VX045081.D	28 Feb 2025 12:13	JC/MD	Ok,M
16	Q1401-03	VX045082.D	28 Feb 2025 12:37	JC/MD	Ok
17	Q1401-06	VX045083.D	28 Feb 2025 13:00	JC/MD	Ok
18	Q1423-01	VX045084.D	28 Feb 2025 13:23	JC/MD	Ok
19	Q1423-03	VX045085.D	28 Feb 2025 13:47	JC/MD	Ok
20	Q1403-01	VX045086.D	28 Feb 2025 14:10	JC/MD	Ok
21	Q1403-02	VX045087.D	28 Feb 2025 14:33	JC/MD	Ok

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX022825

Review By	Maresh Dadoda	Review On	2/28/2025 11:09:50 AM
Supervise By	Semsettin Yesilyurt	Supervise On	2/28/2025 11:11:09 AM
SubDirectory	VX022825	HP Acquire Method	HP Processing Method 82X022825W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP133187,VP133189		
Initial Calibration Stds	VP133194,VP133195,VP133196,VP133197,VP133198,VP133199		
CCC	VP133188,VP133190		
Internal Standard/PEM			
ICV/I.BLK	VP133200		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

22	Q1435-01	VX045088.D	28 Feb 2025 14:57	JC/MD	Ok
23	Q1403-04	VX045089.D	28 Feb 2025 15:20	JC/MD	Ok
24	Q1462-02	VX045090.D	28 Feb 2025 15:44	JC/MD	Ok
25	Q1469-01	VX045091.D	28 Feb 2025 16:07	JC/MD	Ok
26	Q1469-02	VX045092.D	28 Feb 2025 16:31	JC/MD	Ok
27	Q1469-03	VX045093.D	28 Feb 2025 16:54	JC/MD	Ok
28	Q1469-04	VX045094.D	28 Feb 2025 17:17	JC/MD	Ok
29	Q1403-03	VX045095.D	28 Feb 2025 17:41	JC/MD	Ok
30	Q1462-01	VX045096.D	28 Feb 2025 18:04	JC/MD	Ok,M
31	IBLK	VX045097.D	28 Feb 2025 18:27	JC/MD	Ok
32	VSTDCCC050	VX045098.D	28 Feb 2025 18:50	JC/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX030525

Review By	John Carlone	Review On	3/6/2025 8:28:41 AM
Supervise By	Maresh Dadoda	Supervise On	3/6/2025 2:56:36 PM
SubDirectory	VX030525	HP Acquire Method	HP Processing Method 82X022825W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133217		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133218,VP133219		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX045126.D	05 Mar 2025 08:40	JC/MD	Ok
2	VSTDCCC050	VX045127.D	05 Mar 2025 09:12	JC/MD	Ok,M
3	VX0305MBL01	VX045128.D	05 Mar 2025 09:39	JC/MD	Ok
4	VX0305WBL01	VX045129.D	05 Mar 2025 10:03	JC/MD	Ok
5	VX0305WBS01	VX045130.D	05 Mar 2025 10:26	JC/MD	Ok,M
6	VX0305MBS01	VX045131.D	05 Mar 2025 10:53	JC/MD	Ok,M
7	Q1480-17	VX045132.D	05 Mar 2025 11:16	JC/MD	Ok
8	Q1448-04ME	VX045133.D	05 Mar 2025 11:40	JC/MD	Ok
9	IBLK	VX045134.D	05 Mar 2025 12:03	JC/MD	Ok
10	VX0305WBSD01	VX045135.D	05 Mar 2025 12:26	JC/MD	Ok,M
11	Q1478-04DL	VX045136.D	05 Mar 2025 12:50	JC/MD	Ok
12	Q1478-06DL	VX045137.D	05 Mar 2025 13:13	JC/MD	Ok
13	Q1478-02DL	VX045138.D	05 Mar 2025 13:36	JC/MD	Not Ok
14	Q1478-08	VX045139.D	05 Mar 2025 13:59	JC/MD	Not Ok
15	VX0305MBSD01	VX045140.D	05 Mar 2025 14:23	JC/MD	Ok,M
16	Q1448-04MEDL	VX045141.D	05 Mar 2025 14:46	JC/MD	Not Ok
17	IBLK	VX045142.D	05 Mar 2025 15:09	JC/MD	Ok
18	Q1478-08	VX045143.D	05 Mar 2025 15:32	JC/MD	Not Ok
19	Q1478-02DL	VX045144.D	05 Mar 2025 15:56	JC/MD	Ok
20	Q1478-08	VX045145.D	05 Mar 2025 16:19	JC/MD	Ok
21	Q1501-03	VX045146.D	05 Mar 2025 16:42	JC/MD	Ok

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QCBatch ID # VX030525

Review By	John Carlone	Review On	3/6/2025 8:28:41 AM
Supervise By	Mahesh Dadoda	Supervise On	3/6/2025 2:56:36 PM
SubDirectory	VX030525	HP Acquire Method	HP Processing Method 82X022825W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133217		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133218,VP133219		

22	Q1501-07	VX045147.D	05 Mar 2025 17:05	JC/MD	Ok
23	Q1501-04	VX045148.D	05 Mar 2025 17:28	JC/MD	Not Ok
24	Q1488-15	VX045149.D	05 Mar 2025 17:52	JC/MD	Ok
25	Q1488-13	VX045150.D	05 Mar 2025 18:15	JC/MD	Ok
26	Q1488-14	VX045151.D	05 Mar 2025 18:38	JC/MD	Dilution
27	Q1494-01	VX045152.D	05 Mar 2025 19:01	JC/MD	ReRun
28	VSTDCCC050	VX045153.D	05 Mar 2025 19:24	JC/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_Y**

Daily Analysis Runlog For Sequence/QCBatch ID # VY022525

Review By	Mahesh Dadoda	Review On	2/26/2025 1:45:35 PM		
Supervise By	Semsettin Yesilyurt	Supervise On	2/26/2025 1:46:55 PM		
SubDirectory	VY022525	HP Acquire Method	MSVOA_Y	HP Processing Method	82y022525s.m
STD. NAME		STD REF.#			
Tune/Reschk		VP133154			
Initial Calibration Stds		VP133137,VP133140,VP133143,VP133146,VP133147,VP133149			
CCC					
Internal Standard/PEM		VP131783			
ICV/I.BLK		VP133150			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VY021308.D	25 Feb 2025 12:10	SY/MD	Ok
2	VSTDICC005	VY021309.D	25 Feb 2025 12:40	SY/MD	Ok,M
3	VSTDICC010	VY021310.D	25 Feb 2025 13:03	SY/MD	Ok,M
4	VSTDICC020	VY021311.D	25 Feb 2025 13:26	SY/MD	Ok,M
5	VSTDICCC050	VY021312.D	25 Feb 2025 14:48	SY/MD	Ok,M
6	VSTDICC100	VY021313.D	25 Feb 2025 15:34	SY/MD	Not Ok
7	VSTDICC150	VY021314.D	25 Feb 2025 15:57	SY/MD	Ok,M
8	VIBLK	VY021315.D	25 Feb 2025 16:24	SY/MD	Ok
9	VSTDICC100	VY021316.D	25 Feb 2025 16:49	SY/MD	Ok,M
10	VSTDICV050	VY021317.D	25 Feb 2025 17:31	SY/MD	Ok,M
11	VIBLK	VY021318.D	25 Feb 2025 17:54	SY/MD	Ok

M : Manual Integration

Instrument ID: **MSVOA_Y**

Daily Analysis Runlog For Sequence/QC Batch ID # VY022725

Review By	Mahesh Dadoda	Review On	2/28/2025 11:07:46 AM
Supervise By	Semsettin Yesilyurt	Supervise On	2/28/2025 11:11:02 AM
SubDirectory	VY022725	HP Acquire Method	HP Processing Method 82y022225s.m
STD. NAME	STD REF.#		
Tune/Reschk	VP133167		
Initial Calibration Stds	VP133165,VP133166		
CCC			
Internal Standard/PEM			
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VY021345.D	27 Feb 2025 09:41	SY/MD	Ok
2	VSTDCCC050	VY021346.D	27 Feb 2025 10:13	SY/MD	Ok,M
3	VY0227SBL01	VY021347.D	27 Feb 2025 10:42	SY/MD	Ok
4	VY0227SBS01	VY021348.D	27 Feb 2025 11:18	SY/MD	Ok,M
5	VY0227SBSD01	VY021349.D	27 Feb 2025 11:40	SY/MD	Ok,M
6	Q1428-01	VY021350.D	27 Feb 2025 12:04	SY/MD	ReRun
7	Q1442-03	VY021351.D	27 Feb 2025 12:28	SY/MD	Ok
8	Q1416-01RE	VY021352.D	27 Feb 2025 12:51	SY/MD	Confirms
9	Q1428-01RE	VY021353.D	27 Feb 2025 13:14	SY/MD	Confirms
10	Q1418-01	VY021354.D	27 Feb 2025 13:38	SY/MD	Not Ok
11	Q1415-03RE	VY021355.D	27 Feb 2025 14:01	SY/MD	Confirms
12	Q1422-02	VY021356.D	27 Feb 2025 14:25	SY/MD	ReRun
13	Q1422-01	VY021357.D	27 Feb 2025 14:48	SY/MD	ReRun
14	Q1421-09	VY021358.D	27 Feb 2025 15:12	SY/MD	ReRun
15	Q1421-07	VY021359.D	27 Feb 2025 15:35	SY/MD	ReRun
16	Q1421-01	VY021360.D	27 Feb 2025 15:58	SY/MD	Ok
17	Q1427-01RE	VY021361.D	27 Feb 2025 16:22	SY/MD	Confirms
18	Q1420-07	VY021362.D	27 Feb 2025 16:45	SY/MD	Ok
19	Q1411-03	VY021363.D	27 Feb 2025 17:09	SY/MD	Not Ok
20	Q1411-01	VY021364.D	27 Feb 2025 17:32	SY/MD	Ok
21	Q1440-01	VY021365.D	27 Feb 2025 17:55	SY/MD	ReRun

Instrument ID: **MSVOA_Y**

Daily Analysis Runlog For Sequence/QC Batch ID # VY022725

Review By	Maresh Dadoda	Review On	2/28/2025 11:07:46 AM
Supervise By	Semsettin Yesilyurt	Supervise On	2/28/2025 11:11:02 AM
SubDirectory	VY022725	HP Acquire Method	HP Processing Method 82y022225s.m
STD. NAME	STD REF.#		
Tune/Reschk	VP133167		
Initial Calibration Stds	VP133165,VP133166		
CCC			
Internal Standard/PEM			
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

22	Q1448-01	VY021366.D	27 Feb 2025 18:19	SY/MD	ReRun
23	Q1448-02	VY021367.D	27 Feb 2025 18:42	SY/MD	ReRun
24	Q1448-03	VY021368.D	27 Feb 2025 19:06	SY/MD	ReRun
25	Q1448-04	VY021369.D	27 Feb 2025 19:29	SY/MD	Dilution
26	Q1448-05	VY021370.D	27 Feb 2025 19:52	SY/MD	ReRun
27	Q1421-02MS	VY021371.D	27 Feb 2025 20:15	SY/MD	Ok,M
28	Q1421-03MSD	VY021372.D	27 Feb 2025 20:38	SY/MD	Ok,M
29	VSTDCCC050	VY021373.D	27 Feb 2025 21:01	SY/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_Y**

Daily Analysis Runlog For Sequence/QC Batch ID # VY022825

Review By	John Carlone	Review On	3/3/2025 12:12:17 PM		
Supervise By	Maresh Dadoda	Supervise On	3/3/2025 1:51:10 PM		
SubDirectory	VY022825	HP Acquire Method	MSVOA_Y	HP Processing Method	82y022525s.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP133182			
CCC		VP133183,VP133184			
Internal Standard/PEM		VP131783			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VY021374.D	28 Feb 2025 09:03	SY/MD	Ok
2	VSTDCCC050	VY021375.D	28 Feb 2025 09:44	SY/MD	Ok,M
3	VY0228SBL01	VY021376.D	28 Feb 2025 10:59	SY/MD	Ok
4	VY0228SBS01	VY021377.D	28 Feb 2025 11:32	SY/MD	Ok,M
5	VY0228SBS01	VY021378.D	28 Feb 2025 11:55	SY/MD	Ok,M
6	Q1421-07RE	VY021379.D	28 Feb 2025 12:56	SY/MD	Confirms
7	Q1422-01RE	VY021380.D	28 Feb 2025 13:20	SY/MD	Confirms
8	Q1422-02	VY021381.D	28 Feb 2025 15:31	SY/MD	Ok
9	Q1448-01RE	VY021382.D	28 Feb 2025 15:55	SY/MD	Confirms
10	Q1448-02RE	VY021383.D	28 Feb 2025 16:18	SY/MD	Confirms
11	Q1448-03RE	VY021384.D	28 Feb 2025 16:41	SY/MD	Confirms
12	Q1448-05RE	VY021385.D	28 Feb 2025 17:05	SY/MD	Confirms
13	Q1440-01	VY021386.D	28 Feb 2025 17:28	SY/MD	Ok
14	Q1441-01	VY021387.D	28 Feb 2025 17:52	SY/MD	ReRun
15	Q1458-02	VY021388.D	28 Feb 2025 18:15	SY/MD	Ok,M
16	Q1463-01	VY021389.D	28 Feb 2025 18:38	SY/MD	ReRun
17	Q1457-01	VY021390.D	28 Feb 2025 19:02	SY/MD	Ok
18	Q1463-03	VY021391.D	28 Feb 2025 19:25	SY/MD	ReRun
19	Q1463-04	VY021392.D	28 Feb 2025 19:49	SY/MD	ReRun
20	Q1463-05	VY021393.D	28 Feb 2025 20:12	SY/MD	ReRun
21	VSTDCCC050	VY021394.D	28 Feb 2025 20:35	SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX022825

Review By	Mahesh Dadoda	Review On	2/28/2025 11:09:50 AM
Supervise By	Semsettin Yesilyurt	Supervise On	2/28/2025 11:11:09 AM
SubDirectory	VX022825	HP Acquire Method	HP Processing Method 82X022825W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133187,VP133189
Initial Calibration Stds	VP133194,VP133195,VP133196,VP133197,VP133198,VP133199
CCC	VP133188,VP133190
Internal Standard/PEM	
ICV/I.BLK	VP133200
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX045067.D	28 Feb 2025 01:03		JC/MD	Ok
2	VSTDIC001	VSTDIC001	VX045068.D	28 Feb 2025 01:27		JC/MD	Ok,M
3	VSTDIC005	VSTDIC005	VX045069.D	28 Feb 2025 02:13		JC/MD	Ok,M
4	VSTDIC020	VSTDIC020	VX045070.D	28 Feb 2025 02:37		JC/MD	Ok,M
5	VSTDIC050	VSTDIC050	VX045071.D	28 Feb 2025 03:00		JC/MD	Ok,M
6	VSTDIC100	VSTDIC100	VX045072.D	28 Feb 2025 03:23		JC/MD	Ok,M
7	VSTDIC150	VSTDIC150	VX045073.D	28 Feb 2025 03:47		JC/MD	Ok,M
8	IBLK	IBLK	VX045074.D	28 Feb 2025 04:10		JC/MD	Ok
9	VSTDICV050	ICVVX022825	VX045075.D	28 Feb 2025 04:33		JC/MD	Ok,M
10	BFB	BFB	VX045076.D	28 Feb 2025 10:03		JC/MD	Ok
11	VSTDCCC050	VSTDCCC050	VX045077.D	28 Feb 2025 10:32	V12668	JC/MD	Ok,M
12	VX0228MBL01	VX0228MBL01	VX045078.D	28 Feb 2025 11:00		JC/MD	Ok
13	VX0228WBL01	VX0228WBL01	VX045079.D	28 Feb 2025 11:23		JC/MD	Ok
14	VX0228WBS01	VX0228WBS01	VX045080.D	28 Feb 2025 11:46		JC/MD	Ok,M
15	VX0228WBSD01	VX0228WBSD01	VX045081.D	28 Feb 2025 12:13		JC/MD	Ok,M
16	Q1401-03	BP-VPB-192-GW-840-8	VX045082.D	28 Feb 2025 12:37	vial B pH<2	JC/MD	Ok
17	Q1401-06	BP-VPB-192-GW-900-9	VX045083.D	28 Feb 2025 13:00	vial B pH<2	JC/MD	Ok
18	Q1423-01	BP-VPB-192-TB-20250	VX045084.D	28 Feb 2025 13:23	vial B pH<2 TB	JC/MD	Ok

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX022825

Review By	Maresh Dadoda	Review On	2/28/2025 11:09:50 AM
Supervise By	Semsettin Yesilyurt	Supervise On	2/28/2025 11:11:09 AM
SubDirectory	VX022825	HP Acquire Method	HP Processing Method 82X022825W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP133187,VP133189		
Initial Calibration Stds	VP133194,VP133195,VP133196,VP133197,VP133198,VP133199		
CCC	VP133188,VP133190		
Internal Standard/PEM			
ICV/I.BLK	VP133200		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

19	Q1423-03	BP-VPB-192-EB-20250	VX045085.D	28 Feb 2025 13:47	vial B pH<2 EB	JC/MD	Ok
20	Q1403-01	Storage-Blank-SOIL-RE	VX045086.D	28 Feb 2025 14:10	vial B pH<2	JC/MD	Ok
21	Q1403-02	Storage-Blank-WATER-	VX045087.D	28 Feb 2025 14:33	vial B pH<2	JC/MD	Ok
22	Q1435-01	286107	VX045088.D	28 Feb 2025 14:57	vial A pH<2	JC/MD	Ok
23	Q1403-04	Storage-Blank-SAMPLE	VX045089.D	28 Feb 2025 15:20	vial B pH<2	JC/MD	Ok
24	Q1462-02	FB	VX045090.D	28 Feb 2025 15:44	vial A pH<2 FB	JC/MD	Ok
25	Q1469-01	Storage-Blank-SOIL-RE	VX045091.D	28 Feb 2025 16:07	vial A pH<2	JC/MD	Ok
26	Q1469-02	Storage-Blank-WATER-	VX045092.D	28 Feb 2025 16:31	vial A pH<2	JC/MD	Ok
27	Q1469-03	Storage-Blank-WATER-	VX045093.D	28 Feb 2025 16:54	vial A pH<2	JC/MD	Ok
28	Q1469-04	Storage-Blank-SAMPLE	VX045094.D	28 Feb 2025 17:17	vial A pH<2	JC/MD	Ok
29	Q1403-03	Storage-Blank-WATER-	VX045095.D	28 Feb 2025 17:41	vial B pH<2	JC/MD	Ok
30	Q1462-01	MW2	VX045096.D	28 Feb 2025 18:04	vial A pH<2	JC/MD	Ok,M
31	IBLK	IBLK	VX045097.D	28 Feb 2025 18:27		JC/MD	Ok
32	VSTDCCC050	VSTDCCC050EC	VX045098.D	28 Feb 2025 18:50		JC/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX030525

Review By	John Carlone	Review On	3/6/2025 8:28:41 AM
Supervise By	Maresh Dadoda	Supervise On	3/6/2025 2:56:36 PM
SubDirectory	VX030525	HP Acquire Method	HP Processing Method 82X022825W.M

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP133217
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133218,VP133219

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX045126.D	05 Mar 2025 08:40		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX045127.D	05 Mar 2025 09:12	pH#Lot#V12668	JC/MD	Ok,M
3	VX0305MBL01	VX0305MBL01	VX045128.D	05 Mar 2025 09:39		JC/MD	Ok
4	VX0305WBL01	VX0305WBL01	VX045129.D	05 Mar 2025 10:03		JC/MD	Ok
5	VX0305WBS01	VX0305WBS01	VX045130.D	05 Mar 2025 10:26		JC/MD	Ok,M
6	VX0305MBS01	VX0305MBS01	VX045131.D	05 Mar 2025 10:53		JC/MD	Ok,M
7	Q1480-17	TP-3	VX045132.D	05 Mar 2025 11:16		JC/MD	Ok
8	Q1448-04ME	P3ME	VX045133.D	05 Mar 2025 11:40		JC/MD	Ok
9	IBLK	IBLK	VX045134.D	05 Mar 2025 12:03		JC/MD	Ok
10	VX0305WBSD01	VX0305WBSD01	VX045135.D	05 Mar 2025 12:26		JC/MD	Ok,M
11	Q1478-04DL	IDW-AQ-DRUM-616-02	VX045136.D	05 Mar 2025 12:50	vial B pH<2	JC/MD	Ok
12	Q1478-06DL	IDW-AQ-DRUM-614-02	VX045137.D	05 Mar 2025 13:13	vial B pH<2	JC/MD	Ok
13	Q1478-02DL	IDW-AQ-DRUM-610-02	VX045138.D	05 Mar 2025 13:36	Not req.	JC/MD	Not Ok
14	Q1478-08	IDW-AQ-DRUM-612-02	VX045139.D	05 Mar 2025 13:59	Need lower dilution	JC/MD	Not Ok
15	VX0305MBSD01	VX0305MBSD01	VX045140.D	05 Mar 2025 14:23		JC/MD	Ok,M
16	Q1448-04MEDL	P3MEDL	VX045141.D	05 Mar 2025 14:46	Not req.	JC/MD	Not Ok
17	IBLK	IBLK	VX045142.D	05 Mar 2025 15:09		JC/MD	Ok
18	Q1478-08	IDW-AQ-DRUM-612-02	VX045143.D	05 Mar 2025 15:32	Need lower dilution	JC/MD	Not Ok

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX030525

Review By	John Carlone	Review On	3/6/2025 8:28:41 AM
Supervise By	Maresh Dadoda	Supervise On	3/6/2025 2:56:36 PM
SubDirectory	VX030525	HP Acquire Method	HP Processing Method 82X022825W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133217		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133218,VP133219		

19	Q1478-02DL	IDW-AQ-DRUM-610-02	VX045144.D	05 Mar 2025 15:56	vial B pH<2	JC/MD	Ok
20	Q1478-08	IDW-AQ-DRUM-612-02	VX045145.D	05 Mar 2025 16:19	vial A pH<2	JC/MD	Ok
21	Q1501-03	EB01-030525	VX045146.D	05 Mar 2025 16:42	vial A pH<2 EB	JC/MD	Ok
22	Q1501-07	TB01-030525	VX045147.D	05 Mar 2025 17:05	vial A pH<2 TB	JC/MD	Ok
23	Q1501-04	BR-05-465-030525	VX045148.D	05 Mar 2025 17:28	Need Straight Run	JC/MD	Not Ok
24	Q1488-15	TB03042025	VX045149.D	05 Mar 2025 17:52	vial A pH<2 TB	JC/MD	Ok
25	Q1488-13	ENV-102-GW01	VX045150.D	05 Mar 2025 18:15	vial A pH<2	JC/MD	Ok
26	Q1488-14	ENV-104-GW01	VX045151.D	05 Mar 2025 18:38	vial A pH<2 Need 4X	JC/MD	Dilution
27	Q1494-01	PURGE-WATER	VX045152.D	05 Mar 2025 19:01	vial A pH<2 E flag in previous sample	JC/MD	ReRun
28	VSTDCCC050	VSTDCCC050EC	VX045153.D	05 Mar 2025 19:24		JC/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY022525

Review By	Mahesh Dadoda	Review On	2/26/2025 1:45:35 PM		
Supervise By	Semsettin Yesilyurt	Supervise On	2/26/2025 1:46:55 PM		
SubDirectory	VY022525	HP Acquire Method	MSVOA_Y	HP Processing Method	82y022525s.m

STD. NAME	STD REF.#
Tune/Reschk	VP133154
Initial Calibration Stds	VP133137,VP133140,VP133143,VP133146,VP133147,VP133149
CCC	
Internal Standard/PEM	VP131783
ICV/I.BLK	VP133150
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	Sampleld	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY021308.D	25 Feb 2025 12:10		SY/MD	Ok
2	VSTDIC005	VSTDIC005	VY021309.D	25 Feb 2025 12:40		SY/MD	Ok,M
3	VSTDIC010	VSTDIC010	VY021310.D	25 Feb 2025 13:03		SY/MD	Ok,M
4	VSTDIC020	VSTDIC020	VY021311.D	25 Feb 2025 13:26	Acrolein fail for method	SY/MD	Ok,M
5	VSTDIC050	VSTDIC050	VY021312.D	25 Feb 2025 14:48		SY/MD	Ok,M
6	VSTDIC100	VSTDIC100	VY021313.D	25 Feb 2025 15:34	Not used	SY/MD	Not Ok
7	VSTDIC150	VSTDIC150	VY021314.D	25 Feb 2025 15:57		SY/MD	Ok,M
8	VIBLK	VIBLK	VY021315.D	25 Feb 2025 16:24		SY/MD	Ok
9	VSTDIC100	VSTDIC100	VY021316.D	25 Feb 2025 16:49		SY/MD	Ok,M
10	VSTDICV050	ICVVY022525	VY021317.D	25 Feb 2025 17:31	ICV Failed for comp. #10	SY/MD	Ok,M
11	VIBLK	VIBLK	VY021318.D	25 Feb 2025 17:54		SY/MD	Ok

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY022725

Review By	Mahesh Dadoda	Review On	2/28/2025 11:07:46 AM
Supervise By	Semsettin Yesilyurt	Supervise On	2/28/2025 11:11:02 AM
SubDirectory	VY022725	HP Acquire Method	HP Processing Method 82y022225s.m

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133167 VP133165,VP133166

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY021345.D	27 Feb 2025 09:41		SY/MD	Ok
2	VSTDCCC050	VSTDCCC050	VY021346.D	27 Feb 2025 10:13		SY/MD	Ok,M
3	VY0227SBL01	VY0227SBL01	VY021347.D	27 Feb 2025 10:42		SY/MD	Ok
4	VY0227SBS01	VY0227SBS01	VY021348.D	27 Feb 2025 11:18		SY/MD	Ok,M
5	VY0227SBSD01	VY0227SBSD01	VY021349.D	27 Feb 2025 11:40		SY/MD	Ok,M
6	Q1428-01	NB-07-022525	VY021350.D	27 Feb 2025 12:04	Vial-A ISTD Fail	SY/MD	ReRun
7	Q1442-03	351	VY021351.D	27 Feb 2025 12:28	Vial-A	SY/MD	Ok
8	Q1416-01RE	OK-01-022425RE	VY021352.D	27 Feb 2025 12:51	Vial-B ISTD Fail	SY/MD	Confirms
9	Q1428-01RE	NB-07-022525RE	VY021353.D	27 Feb 2025 13:14	Vial-B Internal Standard Fail	SY/MD	Confirms
10	Q1418-01	TR-06-02242025	VY021354.D	27 Feb 2025 13:38	Vial-B Not purge	SY/MD	Not Ok
11	Q1415-03RE	B-163-SB02RE	VY021355.D	27 Feb 2025 14:01	Vial-B Internal standard fail;Not match for com.#20	SY/MD	Confirms
12	Q1422-02	B-154-SB02	VY021356.D	27 Feb 2025 14:25	Vial-A Internal standard fail	SY/MD	ReRun
13	Q1422-01	B-154-SB01	VY021357.D	27 Feb 2025 14:48	Vial-A Internal standard fail	SY/MD	ReRun
14	Q1421-09	P001-CLAY-CF02-01	VY021358.D	27 Feb 2025 15:12	Internal Standard Fail	SY/MD	ReRun
15	Q1421-07	P001-CLAY-CF01-02	VY021359.D	27 Feb 2025 15:35	Vial-A Internal standard fail	SY/MD	ReRun
16	Q1421-01	P001-CLAY-CF01-01	VY021360.D	27 Feb 2025 15:58	Vial-A Internal standard fail	SY/MD	Ok
17	Q1427-01RE	VNJ-227RE	VY021361.D	27 Feb 2025 16:22	Vial-B Internal standard fail;Surrogate fail	SY/MD	Confirms

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY022725

Review By	Maresh Dadoda	Review On	2/28/2025 11:07:46 AM
Supervise By	Semsettin Yesilyurt	Supervise On	2/28/2025 11:11:02 AM
SubDirectory	VY022725	HP Acquire Method	HP Processing Method 82y022225s.m
STD. NAME	STD REF.#		
Tune/Reschk	VP133167		
Initial Calibration Stds	VP133165,VP133166		
CCC			
Internal Standard/PEM			
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

18	Q1420-07	TP-2-WC-VOC	VY021362.D	27 Feb 2025 16:45	Vial-B	SY/MD	Ok
19	Q1411-03	HR-03-02212025	VY021363.D	27 Feb 2025 17:09	Vial-B Not purge	SY/MD	Not Ok
20	Q1411-01	HR-02-02212025	VY021364.D	27 Feb 2025 17:32	Vial-B Internal standard fail	SY/MD	Ok
21	Q1440-01	OR-02-022625	VY021365.D	27 Feb 2025 17:55	Vial-A Internal standard fail	SY/MD	ReRun
22	Q1448-01	PSP1	VY021366.D	27 Feb 2025 18:19	Vial-A Internal standard fail	SY/MD	ReRun
23	Q1448-02	P1	VY021367.D	27 Feb 2025 18:42	Vial-A Internal standard fail	SY/MD	ReRun
24	Q1448-03	P2	VY021368.D	27 Feb 2025 19:06	Vial-A Internal standard fail	SY/MD	ReRun
25	Q1448-04	P3	VY021369.D	27 Feb 2025 19:29	Vial-A Internal standard fail;Need MeOH	SY/MD	Dilution
26	Q1448-05	P4	VY021370.D	27 Feb 2025 19:52	Vial-A Internal standard fail	SY/MD	ReRun
27	Q1421-02MS	P001-CLAY-CF01-01M	VY021371.D	27 Feb 2025 20:15	Vial-A Internal standard fail	SY/MD	Ok,M
28	Q1421-03MSD	P001-CLAY-CF01-01M	VY021372.D	27 Feb 2025 20:38	Vial-A Internal standard fail	SY/MD	Ok,M
29	VSTDCCC050	VSTDCCC050EC	VY021373.D	27 Feb 2025 21:01		SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY022825

Review By	John Carlone	Review On	3/3/2025 12:12:17 PM
Supervise By	Maresh Dadoda	Supervise On	3/3/2025 1:51:10 PM
SubDirectory	VY022825	HP Acquire Method	MSVOA_Y HP Processing Method 82y022525s.m

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP133182
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133183,VP133184 VP131783

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY021374.D	28 Feb 2025 09:03		SY/MD	Ok
2	VSTDCCC050	VSTDCCC050	VY021375.D	28 Feb 2025 09:44	CCAL failed low for comp. #11; CCAL failed high for comp. #16	SY/MD	Ok,M
3	VY0228SBL01	VY0228SBL01	VY021376.D	28 Feb 2025 10:59		SY/MD	Ok
4	VY0228SBS01	VY0228SBS01	VY021377.D	28 Feb 2025 11:32		SY/MD	Ok,M
5	VY0228SBSD01	VY0228SBSD01	VY021378.D	28 Feb 2025 11:55		SY/MD	Ok,M
6	Q1421-07RE	P001-CLAY-CF01-02RE	VY021379.D	28 Feb 2025 12:56	Vial-B Internal Standard Fail	SY/MD	Confirms
7	Q1422-01RE	B-154-SB01RE	VY021380.D	28 Feb 2025 13:20	Vial-B Internal Standard Fail	SY/MD	Confirms
8	Q1422-02	B-154-SB02	VY021381.D	28 Feb 2025 15:31	Vial-B	SY/MD	Ok
9	Q1448-01RE	PSP1RE	VY021382.D	28 Feb 2025 15:55	Vial-B CCAL failed low for comp. #11	SY/MD	Confirms
10	Q1448-02RE	P1RE	VY021383.D	28 Feb 2025 16:18	Vial-B CCAL failed low for comp. #11	SY/MD	Confirms
11	Q1448-03RE	P2RE	VY021384.D	28 Feb 2025 16:41	Vial-B CCAL failed low for comp. #11;Not match for comp. #20	SY/MD	Confirms
12	Q1448-05RE	P4RE	VY021385.D	28 Feb 2025 17:05	Vial-B CCAL failed low for comp. #11; CCAL failed high for comp. #16;Not match for comp. #11,16,20	SY/MD	Confirms
13	Q1440-01	OR-02-022625	VY021386.D	28 Feb 2025 17:28	Vial-B	SY/MD	Ok
14	Q1441-01	HD-02-022625	VY021387.D	28 Feb 2025 17:52	Vial-B Internal Standard Fail	SY/MD	ReRun
15	Q1458-02	SP-SOIL-VOC	VY021388.D	28 Feb 2025 18:15	vial-A	SY/MD	Ok,M

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY022825

Review By	John Carlone	Review On	3/3/2025 12:12:17 PM
Supervise By	Maresh Dadoda	Supervise On	3/3/2025 1:51:10 PM
SubDirectory	VY022825	HP Acquire Method	MSVOA_Y HP Processing Method 82y022525s.m
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133182		
CCC	VP133183,VP133184		
Internal Standard/PEM	VP131783		
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

16	Q1463-01	T1	VY021389.D	28 Feb 2025 18:38	Vial-A CCAL failed low for comp. #11	SY/MD	ReRun
17	Q1457-01	HR-0-02272025	VY021390.D	28 Feb 2025 19:02	Vial-A	SY/MD	Ok
18	Q1463-03	T3	VY021391.D	28 Feb 2025 19:25	Vial-A Internal Standard Fail; CCAL failed low for comp. #11; CCAL failed high for comp.#16	SY/MD	ReRun
19	Q1463-04	T4	VY021392.D	28 Feb 2025 19:49	Vial-A CCAL failed low for comp. #11	SY/MD	ReRun
20	Q1463-05	T5	VY021393.D	28 Feb 2025 20:12	Vial-A Internal Standard Fail; CCAL failed low for comp. #11; CCAL failed high for comp.#16	SY/MD	ReRun
21	VSTDCCC050	VSTDCCC050EC	VY021394.D	28 Feb 2025 20:35		SY/MD	Ok,M

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 2/27/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 02/26/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 02/27/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB134817

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
Q1440-01	OR-02-022625	5	1.15	8.81	9.96	9.06	89.8	
Q1440-02	OR-02-022625-E2	6	1.12	8.87	9.99	9.03	89.2	
Q1441-01	HD-02-022625	7	1.18	8.44	9.62	8.61	88.0	
Q1441-02	HD-02-022625-E2	8	1.15	8.82	9.97	8.76	86.3	
Q1442-01	280	1	1.00	1.00	2.00	2.00	100.0	debris
Q1442-02	281	2	1.15	8.50	9.65	9.00	92.4	
Q1442-03	351	3	1.15	8.81	9.96	8.86	87.5	
Q1442-04	351-E2	4	1.13	8.55	9.68	8.58	87.1	
Q1443-01	3733	9	1.15	0.85	2.00	2.00	100.0	debris
Q1444-01	HIH5032-1-1	10	1.00	1.00	2.00	2.00	100.0	oilc
Q1444-02	HIH5032-1-2	11	1.00	1.00	2.00	2.00	100.0	oilc
Q1445-01	FDH119M-1-1	12	1.00	1.00	2.00	2.00	100.0	oilc
Q1445-02	FDH119M-1-2	13	1.00	1.00	2.00	2.00	100.0	oilc
Q1445-03	FDH119M-2-1	14	1.00	1.00	2.00	2.00	100.0	oilc
Q1445-04	FDH119M-2-2	15	1.00	1.00	2.00	2.00	100.0	oilc
Q1445-05	BC274767-1-1	16	1.00	1.00	2.00	2.00	100.0	oilc
Q1445-06	BC274767-1-2	17	1.00	1.00	2.00	2.00	100.0	oilc
Q1445-07	029015-1-1	18	1.00	1.00	2.00	2.00	100.0	oilc
Q1445-08	029015-1-2	19	1.00	1.00	2.00	2.00	100.0	oilc
Q1447-01	WC1	20	1.16	8.60	9.76	9.11	92.4	
Q1448-01	PSP1	21	1.15	8.50	9.65	8.73	89.2	
Q1448-02	P1	22	1.17	8.42	9.59	8.69	89.3	
Q1448-03	P2	23	1.16	8.53	9.69	8.84	90.0	
Q1448-04	P3	24	1.15	8.79	9.94	8.78	86.8	
Q1448-05	P4	25	1.12	8.75	9.87	8.82	88.0	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

15145

WorkList Name : %1-022625

WorkList ID : 187879

Department : Wet-Chemistry

Date : 02-26-2025 07:54:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1440-01	OR-02-022625	Solid	Percent Solids	Cool 4 deg C	PSEG05	H41	02/26/2025	Chemtech -SO
Q1440-02	OR-02-022625-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	H41	02/26/2025	Chemtech -SO
Q1441-01	HD-02-022625	Solid	Percent Solids	Cool 4 deg C	PSEG05	H31	02/26/2025	Chemtech -SO
Q1441-02	HD-02-022625-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	H31	02/26/2025	Chemtech -SO
Q1442-01	280	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1442-02	281	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1442-03	351	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1442-04	351-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	02/26/2025	Chemtech -SO
Q1443-01	3733	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	02/26/2025	Chemtech -SO
Q1444-01	HIH5032-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1444-02	HIH5032-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1445-01	FDH119M-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1445-02	FDH119M-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1445-03	FDH119M-2-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1445-04	FDH119M-2-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1445-05	BC274767-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1445-06	BC274767-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1445-07	029015-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1445-08	029015-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	02/26/2025	Chemtech -SO
Q1447-01	WC1	Solid	Percent Solids	Cool 4 deg C	GENV01	H33	02/23/2025	Chemtech -SO
Q1448-01	PSP1	Solid	Percent Solids	Cool 4 deg C	GENV01	H33	02/25/2025	Chemtech -SO

Date/Time 02/26/25 15:45

Raw Sample Received by: 88 CWCJ

Raw Sample Relinquished by: 88 CWCJ

Date/Time 02/26/25

Raw Sample Received by: 88 CWCJ

Raw Sample Relinquished by: 88 CWCJ

WORKLIST(Hardcopy Internal Chain)

JB 134817

WorkList Name : %1-022625

WorkList ID : 187879

Department : Wet-Chemistry

Date : 02-26-2025 07:54:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1448-02	P1	Solid	Percent Solids	Cool 4 deg C	GENV01	H33	02/25/2025	Chemtech -SO
Q1448-03	P2	Solid	Percent Solids	Cool 4 deg C	GENV01	H33	02/25/2025	Chemtech -SO
Q1448-04	P3	Solid	Percent Solids	Cool 4 deg C	GENV01	H33	02/25/2025	Chemtech -SO
Q1448-05	P4	Solid	Percent Solids	Cool 4 deg C	GENV01	H33	02/25/2025	Chemtech -SO

Date/Time 02/26/25 15:45

Raw Sample Received by: JB (WC)

Raw Sample Relinquished by: CP SM

Date/Time 02/26/25 17:30

Raw Sample Received by: CP SM

Raw Sample Relinquished by: JB (WC)

Prep Standard - Chemical Standard Summary

Order ID : Q1448

Test : VOCMS Group2

Prepbatch ID :

Sequence ID/Qc Batch ID: VX030525,VY022725,vy022825,

Standard ID :

VP130432,VP131746,VP131767,VP131783,VP132035,VP132036,VP132096,VP132098,VP132613,VP132614,VP133036,VP133037,VP133165,VP133166,VP133167,VP133174,VP133175,VP133178,VP133179,VP133182,VP133183,VP133184,VP133217,VP133218,VP133219,

Chemical ID :

V13391,V13446,V13457,V13460,V13465,V13466,V13706,V13707,V14145,V14154,V14175,V14176,V14289,V14433,V14439,V14521,V14522,V14613,V14614,V14624,V14630,V14631,V14632,V14633,V14722,V14723,V14724,V14744,V14754,V14756,V14801,V14809,V14814,V14842,V14872,V14873,V14874,V14875,W 3112,

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	VP130432	09/20/2024	02/28/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								09/26/2024

FROM 0.10000ml of V13707 + 24.90000ml of V14145 = 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>
247	8260 Internal Standard, 250PPM	VP131746	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								11/23/2024

FROM 0.50000ml of V14289 + 49.50000ml of V14154 = 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>
218	BFB, 25PPM	VP131767	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
11/27/2024								

FROM 0.50000ml of V13391 + 49.50000ml of V14154 = 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>
1917	8260 Internal standard 50 ppm	VP131783	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
11/27/2024								

FROM 0.02000ml of V14289 + 9.98000ml of V14154 = Final Quantity: 10.000 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>
1810	8260 Working Std(2-CVE)-800ppm	VP132035	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/12/2024
<u>FROM</u> 1.00000ml of V14630 + 1.00000ml of V14631 + 1.00000ml of V14632 + 1.00000ml of V14633 + 46.00000ml of V14614 = 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	VP132036	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/12/2024
<u>FROM</u> 7.50000ml of V14614 + 12.50000ml of VP132035 = 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>
719	8260 Working STD (BCM)-First source, 400PPM	VP132096	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda
12/19/2024								
<u>FROM</u>	1.00000ml of V13465 + 1.00000ml of V13466 + 1.50000ml of V13457 + 1.50000ml of V13460 + 20.00000ml of V14614 = 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>
257	8260 Calibration Working STD Mix-First source, 160PPM	VP132613	01/20/2025	02/28/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/29/2025
<u>FROM</u>	0.40000ml of V13446 + 1.00000ml of V14175 + 1.00000ml of V14176 + 1.00000ml of V14433 + 1.00000ml of V14439 + 1.00000ml of V14521 + 1.00000ml of V14522 + 1.00000ml of V14722 + 1.00000ml of V14754 + 1.00000ml of V14756 + 1.00000ml of V14801 + 1.00000ml of V14814 + 1.50000ml of V14723 + 1.50000ml of V14724 + 10.60000ml of V14624 = 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	VP132614	01/20/2025	02/28/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/29/2025
<u>FROM</u>	5.62500ml of V14624 + 9.37500ml of VP132613 = 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>
51	8260 Working STD (Acrolein) -first source, 800PPM	VP133036	02/14/2025	03/13/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 02/18/2025

FROM 1.00000ml of V14872 + 1.00000ml of V14873 + 1.00000ml of V14874 + 1.00000ml of V14875 + 21.00000ml of V14624 = 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>
56	8260 Working STD (Acrolein) -first source, 500PPM	VP133037	02/14/2025	03/13/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 02/18/2025

FROM 5.62500ml of V14624 + 9.37500ml of VP133036 = 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>
773	50 PPB CCC, 8260-SOIL	VP133165	02/27/2025	02/28/2025	Romaben Patel	None	None	Mahesh Dadoda 03/07/2025
<u>FROM</u>	4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00250ml of VP132614 + 0.00250ml of VP133037 + 0.00500ml of VP131783 = 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	VP133166	02/27/2025	02/28/2025	Romaben Patel	None	None	Mahesh Dadoda 03/07/2025
<u>FROM</u> 4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00250ml of VP132614 + 0.00250ml of VP133037 + 0.00500ml of VP131783 = 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>
732	BFB TUNE CHECK - SOIL	VP133167	02/27/2025	02/28/2025	Romaben Patel	None	None	Maresh Dadoda
								03/07/2025

FROM 4.99800ml of W3112 + 0.00200ml of VP131767 = 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>
617	8260 Surrogate, 400PPM	VP133174	02/27/2025	08/27/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								03/04/2025

FROM 0.40000ml of V13706 + 24.60000ml of V14613 = 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>
249	8260 Surrogate, 100PPM	VP133175	02/27/2025	08/27/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								03/04/2025

FROM 0.10000ml of V13706 + 24.90000ml of V14613 = 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>
257	8260 Calibration Working STD Mix-First source, 160PPM	VP133178	02/27/2025	03/31/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								03/04/2025

FROM 0.40000ml of V14842 + 1.00000ml of V14175 + 1.00000ml of V14176 + 1.00000ml of V14433 + 1.00000ml of V14439 + 1.00000ml of V14521 + 1.00000ml of V14522 + 1.00000ml of V14724 + 1.00000ml of V14744 + 1.00000ml of V14754 + 1.00000ml of V14809 + 1.00000ml of V14814 + 1.50000ml of V14722 + 1.50000ml of V14723 + 10.60000ml of V14613 = 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>
244	8260 Calibration Working STD Mix-First source, 100PPM	VP133179	02/27/2025	03/31/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda 03/04/2025

FROM 5.62500ml of V14613 + 9.37500ml of VP133178 = Final Quantity: 15.000 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	VP133182	02/28/2025	03/01/2025	Amit Patel	None	None	Maresh Dadoda 03/04/2025

FROM 4.99800ml of W3112 + 0.00200ml of VP131767 = 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	VP133183	02/28/2025	02/28/2025	Amit Patel	None	None	Mahesh Dadoda
03/04/2025								
<u>FROM</u>	4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00250ml of VP132614 + 0.00250ml of VP133037 + 0.00250ml of VP133175 + 0.00250ml of VP133179 + 0.00500ml of VP131783 = 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>
589	BFB TUNE CHECK	VP133217	03/05/2025	03/06/2025	John Carlone	None	None	Maresh Dadoda
								03/07/2025

FROM 39.98400ml of W3112 + 0.01600ml of VP131767 = Final Quantity: 40.000 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>
620	50 PPB CCC, 8260-Water	VP133218	03/05/2025	03/06/2025	John Carlone	None	None	Maresh Dadoda
								03/07/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP132096 + 0.00500ml of VP133174 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP133036 + 0.01250ml of VP133178 = Final Quantity: 40.000 ml

[illegible]

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	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0181905	02/28/2025	01/10/2025 / SAM	01/23/2023 / SAM	V13446

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	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13457

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	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13460

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	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13465

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	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13466

CHEMICAL RECEIPT LOG BOOK

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]	A0196865	02/27/2026	02/27/2025 / SAM	04/12/2023 / SAM	V13706

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]	A0196865	06/10/2025	06/10/2024 / SAM	04/12/2023 / SAM	V13707

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)	22L0562016	02/28/2025	08/29/2024 / SAM	02/06/2024 / SAM	V14145

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)	22L0562016	05/18/2025	11/18/2024 / pedro	02/06/2024 / SAM	V14154

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	07/10/2025	01/10/2025 / SAM	02/20/2024 / SAM	V14175

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	07/10/2025	01/10/2025 / SAM	02/20/2024 / SAM	V14176

CHEMICAL RECEIPT LOG BOOK

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	11/22/2025	11/22/2024 / SAM	04/15/2024 / SAM	V14289

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	A0209618	07/10/2025	01/10/2025 / SAM	08/15/2024 / SAM	V14433

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	A0209618	07/10/2025	01/10/2025 / SAM	08/15/2024 / SAM	V14439

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	07/10/2025	01/10/2025 / SAM	09/18/2024 / SAM	V14521

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	07/10/2025	01/10/2025 / SAM	09/18/2024 / SAM	V14522

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)	22L0562016	08/27/2025	02/27/2025 / SAM	11/26/2024 / SAM	V14613

CHEMICAL RECEIPT LOG BOOK

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)	22L0562016	06/10/2025	12/10/2024 / SAM	11/26/2024 / SAM	V14614

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)	23I0762004	07/13/2025	01/13/2025 / SAM	11/26/2024 / SAM	V14624

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14630

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14631

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14632

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14633

CHEMICAL RECEIPT LOG BOOK

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	A02110618	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14722

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	A02110618	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14723

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	A02110618	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14724

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	08/27/2025	02/27/2025 / SAM	12/17/2024 / SAM	V14744

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	05/31/2031	01/10/2025 / SAM	12/17/2024 / SAM	V14754

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	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14756

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	A0220563	06/30/2026	01/10/2025 / SAM	01/08/2025 / SAM	V14801

LOTS

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	07/10/2025	01/10/2025 / SAM	01/08/2025 / SAM	V14809

LOTS

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	07/10/2025	01/10/2025 / SAM	01/08/2025 / SAM	V14814

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	08/27/2025	02/27/2025 / SAM	01/21/2025 / SAM	V14842

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	021325	03/13/2025	02/14/2025 / SAM	02/14/2025 / SAM	V14872

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	021325	03/13/2025	02/14/2025 / SAM	02/14/2025 / SAM	V14873

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	021325	03/13/2025	02/14/2025 / SAM	02/14/2025 / SAM	V14874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	021325	03/13/2025	02/14/2025 / SAM	02/14/2025 / SAM	V14875

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

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



Material No.: 9077-02
Batch No.: 23I0762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
Revision No.: 0

Certificate of Analysis

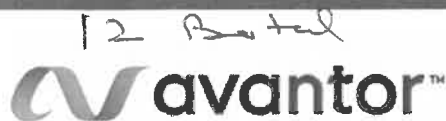
Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.5 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.01
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	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

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



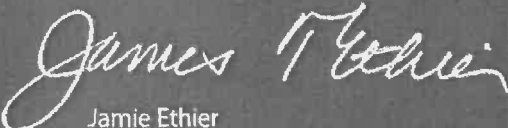
Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

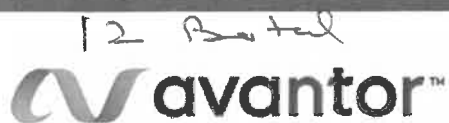
Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	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


Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



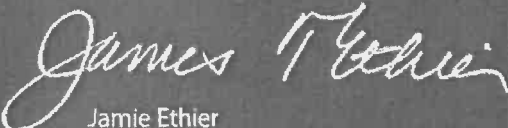
Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

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	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
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


Jamie Ethier
Vice President Global Quality



5 J14



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 021325
Description: Acrolein

Expiration Date: 031325
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Water 072324Q

✓ 14872 to
✓ 14876

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Weight(s) shown below were combined and diluted to (mL): 10.0

Formulated By:	Anthony Mahoney	021325	DATE
Reviewed By:	Pedro L. Rentas	021325	DATE

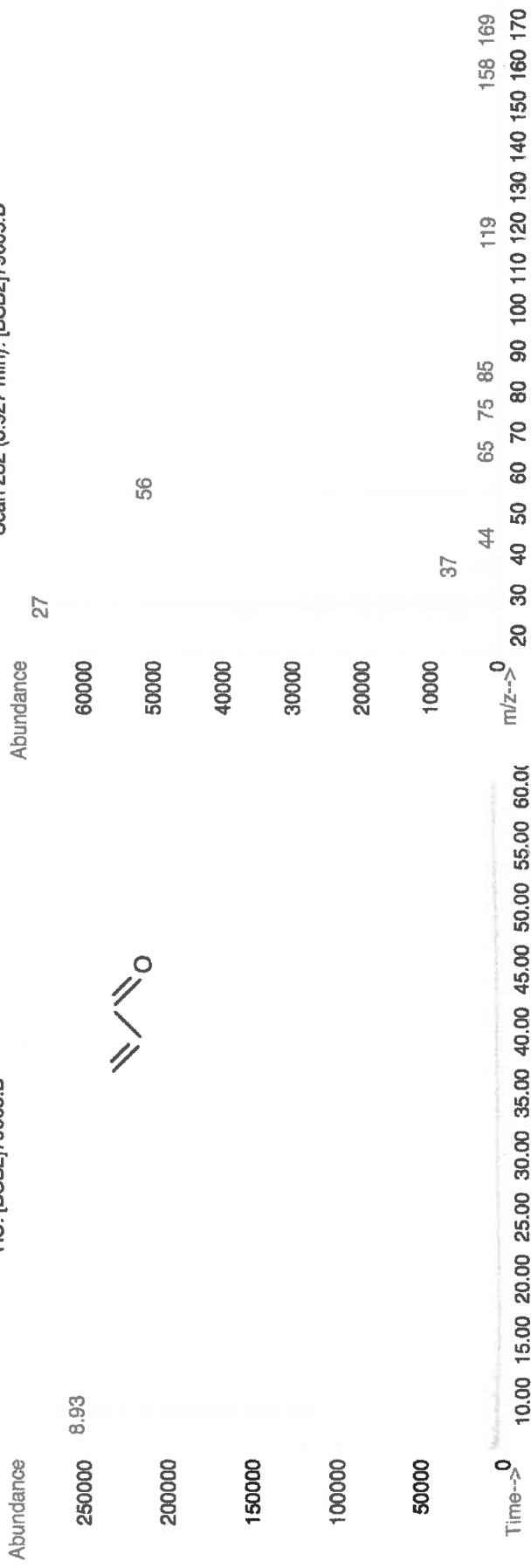
SDS Information			
Compound	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)
1. Acrolein	52.6	107-02-8	0.1 ppm

ori-rat 46mg/kg

Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode). Column: Vocol (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 Rentas. 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 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).

Safety Data Sheet (SDS)
GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

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

P271	Use in ventilated area	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)	H315	Causes skin and eye irritation.
P302,332	If on skin, wash with soap and water		P280	Use gloves, eye protection/face shield
			P305,351,338	If in eyes, remove contacts, rinse with water

Signal Word: DANGER



See Certified Weight Report For Other Analytes Present At Trace Quantities.
INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice
If inhaled
If in case of skin contact
If 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

Suitable extinguishing media
Protective equipment for fire
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Wear self contained breathing apparatus for fire fighting if necessary.
Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions
Environmental precautions
Clean up
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
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
Storage Conditions
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.
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

Water
CAS#: 7732-18-5
TWA: 500 ppm
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	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Vapor Density (AIR = 1)		NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water		Completely miscible		
Appearance and Odor				

CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
NA

Conditions to avoid
NA

Materials to avoid
NA

Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat
NA

LC50 Inhalation - Rat
NA

LD50 Dermal - Guinea pig
NA

Causes skin irritation.

Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50
NA

EC50
NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

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 users 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 Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



5 JUL



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 021325
Description: Acrolein

Expiration Date: 031325
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Solvent(s): Lot#
Water 072324Q

✓ 14872 to
✓ 14876

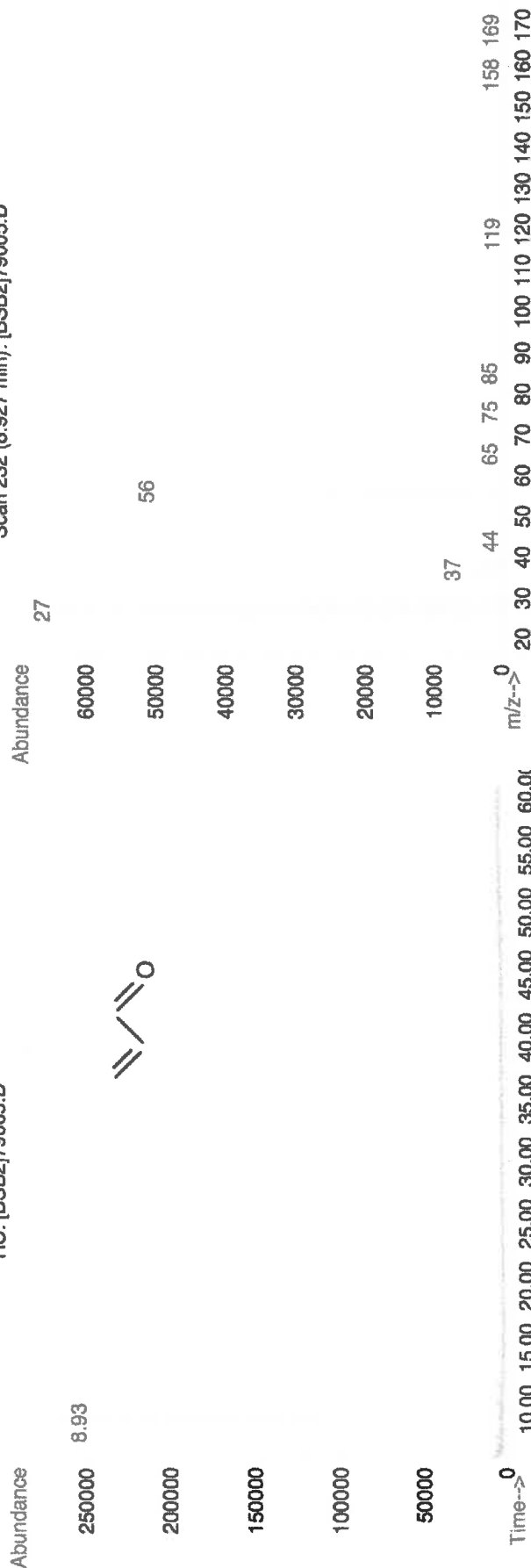
Formulated By:	Anthony Mahoney	021325	DATE
Reviewed By:	Pedro L. Rentas	021325	DATE

SDS Information			
Expanded			
Compound	Uncertainty	(Solvent Safety Info. On Attached pg.)	LDSO
	(+/-) (µg/mL)	CAS#	OSHA PEL (TWA)

1. Acrolein	5	103755V10F	5000	0.05166	0.05178	5011.8	52.6	107-02-8	0.1 ppm	ori-rat 46mg/kg

Method: GC6MSD-1. Detector: Mass Selective Detector (Scan mode). Column: Vocol (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 Rentas. 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 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).

Safety Data Sheet (SDS)
GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

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

P271	Use in ventilated area	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)	H315	Causes skin and eye irritation.
P302,332	If on skin, wash with soap and water		P280	Use gloves, eye protection/face shield
			P305,351,338	If in eyes, remove contacts, rinse with water

Signal Word: DANGER



See Certified Weight Report For Other Analytes Present At Trace Quantities.
INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice
If inhaled
If in case of skin contact
If 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

Suitable extinguishing media
Protective equipment for fire
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Wear self contained breathing apparatus for fire fighting if necessary.
Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions
Environmental precautions
Clean up
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
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
Storage Conditions
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.
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

Water
CAS#: 7732-18-5
TWA: 500 ppm
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	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Vapor Density (AIR = 1)		NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water		Completely miscible		
Appearance and Odor				

CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
NA

Conditions to avoid
NA

Materials to avoid
NA

Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat
NA

LC50 Inhalation - Rat
NA

LD50 Dermal - Guinea pig
NA

Causes skin irritation.

Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50
NA

EC50
NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

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 users 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 Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM

5 J14



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 021325
Description: Acrolein

Expiration Date: 031325
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Solvent(s): Lot#
Water 072324Q

✓ 14872 to
✓ 14876

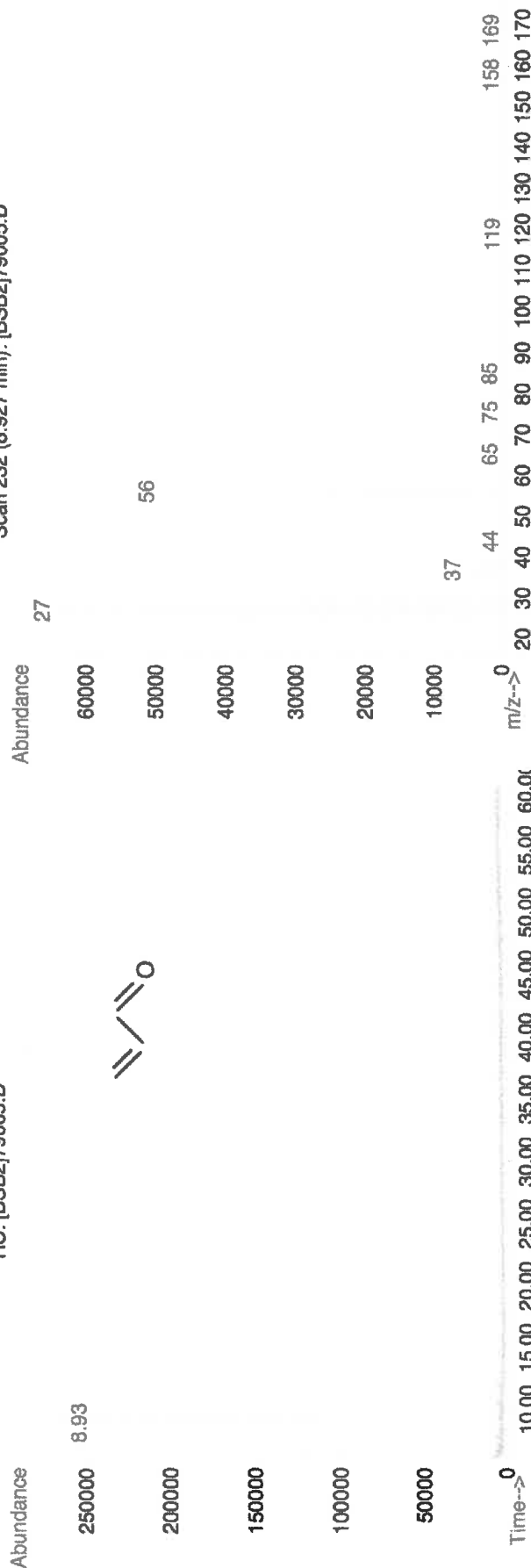
Formulated By:	Anthony Mahoney	021325	DATE
Reviewed By:	Pedro L. Rentas	021325	DATE

SDS Information			
Expanded			
Compound	Uncertainty	(Solvent Safety Info. On Attached pg.)	LDSO
	(+/-) (µg/mL)	CAS#	OSHA PEL (TWA)

1. Acrolein	5	103755V10F	5000	0.05166	0.05178	5011.8	52.6	107-02-8	0.1 ppm	ori-rat 46mg/kg

Method: GC6MSD-1. Detector: Mass Selective Detector (Scan mode). Column: Vocol (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 Rentas. 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 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).

Safety Data Sheet (SDS)
GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

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

P271 Use in ventilated area	P302,332 If on skin, wash with soap and water	H315 Causes skin and eye irritation.	P280 Use gloves, eye protection/face shield	P305,351,338 If in eyes, remove contacts, rinse with water
Signal Word: DANGER				



See Certified Weight Report For Other Analytes Present At Trace Quantities.
INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice
If inhaled
If in case of skin contact
If 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

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.
Hazardous Decomposition products
Carbon oxides

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
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

Water
CAS#: 7732-18-5
TWA: 500 ppm
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	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Vapor Density (AIR = 1)		NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water		Completely miscible		
Appearance and Odor				

CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
NA

Conditions to avoid
NA

Materials to avoid
NA

Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat
NA

LC50 Inhalation - Rat
NA

LD50 Dermal - Guinea pig
NA

Causes skin irritation.

Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50
NA

EC50
NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

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 users 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 Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



5 J14



CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:

91980
021325
Acrolein

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test ID#:

031325
Refrigerate (4 °C)
5000
6UTB

Solvent(s):
Water

Lot#
072324Q

✓ 14872 to
✓ 14876

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Weight(s) shown below were combined and diluted to (mL):

10.0

5E-05 Balance Uncertainty

0.001 Flask Uncertainty

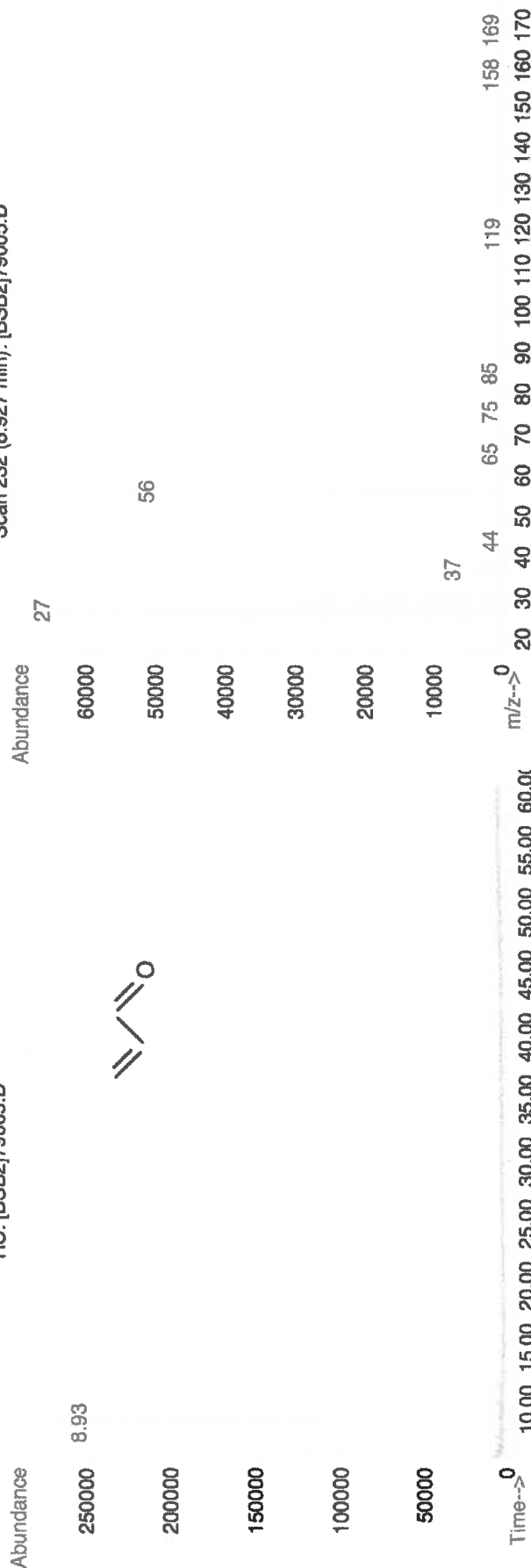
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (±) (µg/mL)	CAS#	OSHA PEL (TWA)	LDSO

1. Acrolein 5 10375SV10F 5000 97 0.5 0.05166 0.05178 5011.8 52.6 107-02-8 0.1 ppm ori-rat 46mg/kg

Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode), Column: Vocol (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 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).

Safety Data Sheet (SDS)
GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

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

P271 Use in ventilated area	P302,332 If on skin, wash with soap and water	H315 Causes skin and eye irritation.	P280 Use gloves, eye protection/face shield	P305,351,338 If in eyes, remove contacts, rinse with water
Signal Word: DANGER				



See Certified Weight Report For Other Analytes Present At Trace Quantities.
INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice
If inhaled
If in case of skin contact
If 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

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.
Hazardous Decomposition products
Carbon oxides

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
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

Water
CAS#: 7732-18-5
TWA: 500 ppm
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	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Vapor Density (AIR = 1)		NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water		NA		
Completely miscible				
Appearance and Odor				

CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

NA

Conditions to avoid

NA

Materials to avoid

NA

Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat

NA

LC50 Inhalation - Rat

NA

LD50 Dermal - Guinea pig

NA

Causes skin irritation.

Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50

NA

EC50

NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

Proper shipping name: Water

IATA

Not dangerous goods

Proper shipping name: Water

Section XV. REGULATORY INFORMATION

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 users 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 Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



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#: 8UTB

Solvent(s): **Methanol**
Lot#: **EG359-USQ12**

Weight(s) shown below were combined and diluted to (mL): **100.0** **0.021** Balance Uncertainty: **5E-05** Flask Uncertainty: **0.021**

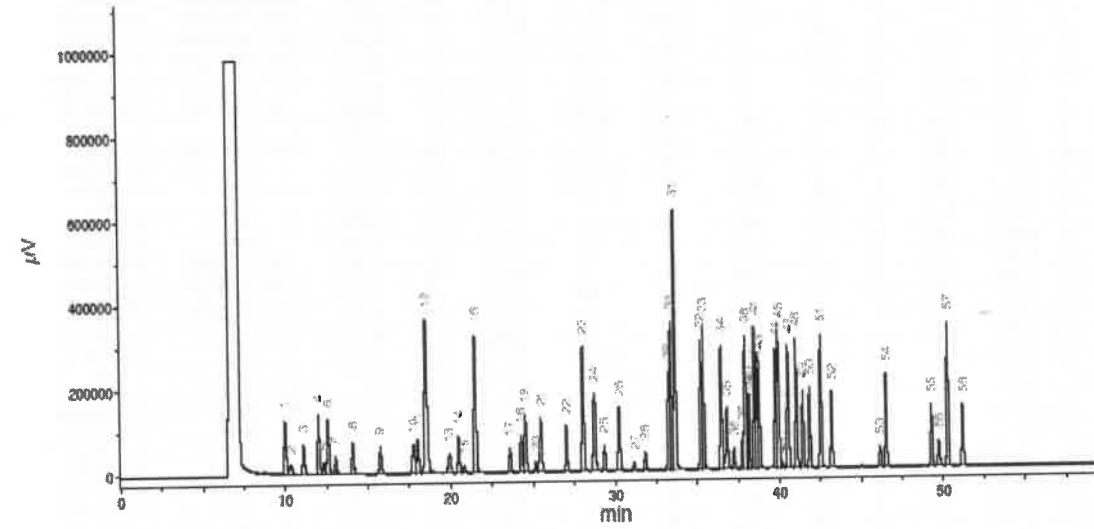
		021624
Formulated By:	Prashant Chauhan	DATE
		021624
Reviewed By:	Pedro L. Rentes	DATE

Compound	(RM#)	Lot	Di.	Initial	Initial	Nominal	Purity	Purity	Uncertainty	Target	Actual	Actual	Expanded	SDS Information			
														(Solvent Safety Info. On Attached pg.)			
														Part Number	Number	Factor	Vol. (mL)
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	
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	
Carbon disulfide	(0060)	MKCR8581	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	
cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A	
trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A	
Diethyl ether	(0153)	IK18CA5000K	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A	
Ethyl methacrylate	(0381)	06126PK	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	or-rat 14800mg/kg	
Iodomethane	(0489)	5HBF8718V	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 70mg/kg	
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 3480mg/kg	
Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	126-98-7	1 ppm (3mg/m3/8H) (skin)	or-rat 1200mg/kg	
Methyl acrylate	(1075)	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	
Methyl methacrylate	(0404)	MKBW5137V	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 7872mg/kg	
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 700mg/kg	
2-Nitropropane	(0461)	14002JK	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	79-46-9	10 ppm (35mg/m3/8H)	or-rat 720mg/kg	
Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A	
1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7800mg/m3/8H)	or-rat 43g/kg	
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 910mg/kg	
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 840mg/kg	
cis-1,2-Dichloroethane	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A	
trans-1,2-Dichloroethane	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	N/A	
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	
1,1-Dichloroethene	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	
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	
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	
Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-68-3	50 ppm (240mg/m3) (CL)	or-rat 900mg/kg	
Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-85-3	N/A	or-rat 105mg/kg	
1,1-Dichloroethane	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	
2,2-Dichloropropane	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	
Tetrachloroethane	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.8	127-18-4	25 ppm (170mg/m3/8H) (final)	or-rat 2629mg/kg	
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	
1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-6	0.001 ppm	or-rat 170mg/kg	
1,2-Dibromomethane	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	
1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-08-2	50 ppm (8H)	or-rat 870mg/kg	
1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2000.2	22.9	78-57-5	75 ppm (350mg/m3/8H)	or-rat 1947mg/kg	
1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	un-rat 3600mg/kg	
1,1-Dichloropropane	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	22.9	563-56-6	N/A	N/A	
cis-1,3-Dichloropropene	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	
trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A	
Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	22.9	87-68-3	0.02 ppm (0.24mg/m3/8H)	or-rat 82mg/kg	
1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	or-rat 670mg/kg	
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	
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 (46mg/m3/8H) (skin)	or-rat 836mg/kg	
2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	80 ppm (270mg/m3/8H)	or-rat 2400mg/kg	
Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (50mg/m3/8H)	or-rat 149.6mg/kg	
Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	104-51-8	1 ppm	or-rat 4694mg/kg	
n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-98-1	N/A	or-rat 2699mg/kg	
Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A	
Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	or-rat >2000mg/kg	
Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-8	N/A	or-rat 4750mg/kg	
Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	91-20-3	10 ppm (50mg/m3/8H)	or-rat 490mg/kg	
Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	or-rat 5000mg/kg	
2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-98-3	200 ppm	or-rat 5000mg/kg	
2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	or-rat 1390mg/kg	
2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 750mg/kg	
3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	95-63-6	N/A	or-rat 5g/kg	
Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	106-67-8	N/A	or-rat 5000mg/kg	
tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.6	22.9	98-06-6	100 ppm (435mg/m3/8H)	or-rat 5g/kg	
sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	N/A	
Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-49-8	75 ppm (350mg/m3/8H)	or-rat 2240mg/kg	
Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	108-90-7	50 ppm (250mg/m3/8H)	or-rat 2290mg/kg	
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	
2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	or-rat 500mg/kg	
3-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 500mg/kg	
4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.1					

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	10.33
3	1,1-Dichloroethane	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethane	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.24
11	cis-1,2-Dichloroethane	18.00
12	Methacrylonitrile/methyl acrylate/Chloroform	18.46
13	Isobutane/1,1,1-Trichloroethane	19.01
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.49
17	Trichloroethane	23.58
18	1,2-Dichloropropane	24.38
19	Methyl methacrylate	24.52
20	Bromochloromethane	25.13
21	Dibromomethane/2-Hitroprene	25.46
22	cis-1,3-Dichloropropane	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropane	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromomethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.66
32	o-Xylene	35.22
33	Styrene	35.39
34	Isopropylbenzene/Bromofonn	36.18
35	cis-1,4-Dichloro-3-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.93
39	trans-1,4-Dichloro-3-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.80
42	2-Chlorotoluene	38.82
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.74
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.53
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.46
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
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, 2023

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	CAS#: 67-56-1	> 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 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#: 8UTB

Solvent(s): **Methanol**
Lot#: **EG359-USQ12**

Weight(s) shown below were combined and diluted to (mL): **100.0** **0.021** Balance Uncertainty: **5E-05** Flask Uncertainty: **0.021**

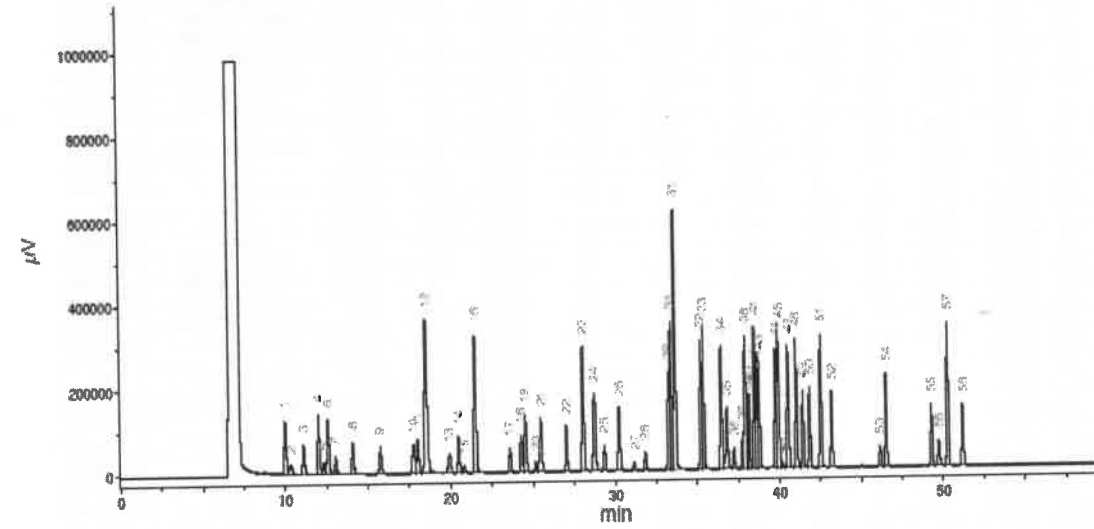
		021624
Formulated By:	Prashant Chauhan	DATE
		021624
Reviewed By:	Pedro L. Rentes	DATE

Compound	(RM#)	Lot	Di.	Initial	Initial	Nominal	Purity	Purity	Uncertainty	Target	Actual	Actual	Expanded	SDS Information			
														(Solvent Safety Info. On Attached pg.)			
														Part Number	Number	Factor	Vol. (mL)
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	
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	
Carbon disulfide	(0060)	MKCR8581	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	
cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A	
trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A	
Diethyl ether	(0153)	IK18CA5000K	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A	
Ethyl methacrylate	(0381)	06126PK	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	or-rat 14800mg/kg	
Iodomethane	(0489)	5HBF8718V	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 70mg/kg	
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 3480mg/kg	
Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	126-98-7	1 ppm (3mg/m3/8H) (skin)	or-rat 1200mg/kg	
Methyl acrylate	(1075)	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	
Methyl methacrylate	(0404)	MKBW5137V	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 7872mg/kg	
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 700mg/kg	
2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	79-46-9	10 ppm (35mg/m3/8H)	or-rat 720mg/kg	
Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A	
1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7800mg/m3/8H)	or-rat 43g/kg	
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 910mg/kg	
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 840mg/kg	
cis-1,2-Dichloroethane	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A	
trans-1,2-Dichloroethane	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	N/A	
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	
1,1-Dichloroethene	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	
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	
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	
Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	or-rat 900mg/kg	
Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-85-3	N/A	or-rat 105mg/kg	
1,1-Dichloroethane	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	
2,2-Dichloropropane	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	
Tetrachloroethane	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.8	127-18-4	25 ppm (170mg/m3/8H) (final)	or-rat 2629mg/kg	
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	
1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-6	0.001 ppm	or-rat 170mg/kg	
1,2-Dibromomethane	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	
1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-08-2	50 ppm (8H)	or-rat 870mg/kg	
1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2000.2	22.9	78-57-5	75 ppm (350mg/m3/8H)	or-rat 1947mg/kg	
1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	un-rat 3600mg/kg	
1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	22.9	563-56-6	N/A	N/A	
cis-1,3-Dichloropropene	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	
trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A	
Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	22.9	87-68-3	0.02 ppm (0.24mg/m3/8H)	or-rat 82mg/kg	
1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	or-rat 670mg/kg	
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	
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 (46mg/m3/8H) (skin)	or-rat 830mg/kg	
2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	or-rat 2400mg/kg	
Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (50mg/m3/8H)	or-rat 149.6mg/kg	
Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	104-51-8	1 ppm	or-rat 4694mg/kg	
n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-98-1	N/A	or-rat 2699mg/kg	
Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A	
Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	or-rat >2000mg/kg	
Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	or-rat 4750mg/kg	
Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	or-rat 490mg/kg	
Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	or-rat 5000mg/kg	
2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	or-rat 5000mg/kg	
2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	or-rat 1390mg/kg	
2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 750mg/kg	
3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	95-63-6	N/A	or-rat 5g/kg	
Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	106-67-8	N/A	or-rat 5000mg/kg	
tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.6	22.9	98-06-6	100 ppm (435mg/m3/8H)	or-rat 5g/kg	
sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	N/A	
Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-49-8	75 ppm (350mg/m3/8H)	or-rat 2240mg/kg	
Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	108-90-7	75 ppm (350mg/m3/8H)	or-rat 2290mg/kg	
Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-49-8	50 ppm (250mg/m3/8H)	or-rat 3900mg/kg	
2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	or-rat 2100mg/kg	
3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.7	22.9	96-50-1	50 ppm (300mg/m3) (CL)	or-rat 500mg/kg	
4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA							

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	10.33
3	1,1-Dichloroethane	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethane	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.24
11	cis-1,2-Dichloroethane	18.00
12	Methacrylonitrile/methyl acrylate/Chloroform	18.46
13	Isobutane/1,1,1-Trichloroethane	19.01
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.49
17	Trichloroethane	23.58
18	1,2-Dichloropropane	24.38
19	Methyl methacrylate	24.52
20	Bromochloromethane	25.13
21	Dibromomethane/2-Hydropropane	25.46
22	cis-1,3-Dichloropropane	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropane	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromomethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.66
32	o-Xylene	35.22
33	Styrene	35.39
34	Isopropylbenzene/Bromoforn	36.18
35	cis-1,4-Dichloro-3-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.93
39	trans-1,4-Dichloro-3-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.80
42	2-Chlorotoluene	38.82
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.74
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.53
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.46
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
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, 2023

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	CAS#: 67-56-1	> 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

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

5E-05 Balance Uncertainty

0.001 Flask Uncertainty

10.0

Weight(s) shown below were combined and diluted to (mL):

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	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	ori-rat 46mg/kg

Method: GC/MSD-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



56

150000

40000

30000

100000

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 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



Dec 09/17/24

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

5E-05 Balance Uncertainty

0.001 Flask Uncertainty

10.0

Weight(s) shown below were combined and diluted to (mL):

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)	(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: GC/MSD-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 56

150000

100000

50000

Time-->

10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00 65.00 70.00 75.00 80.00 85.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00 160.00 170.00

- 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).



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

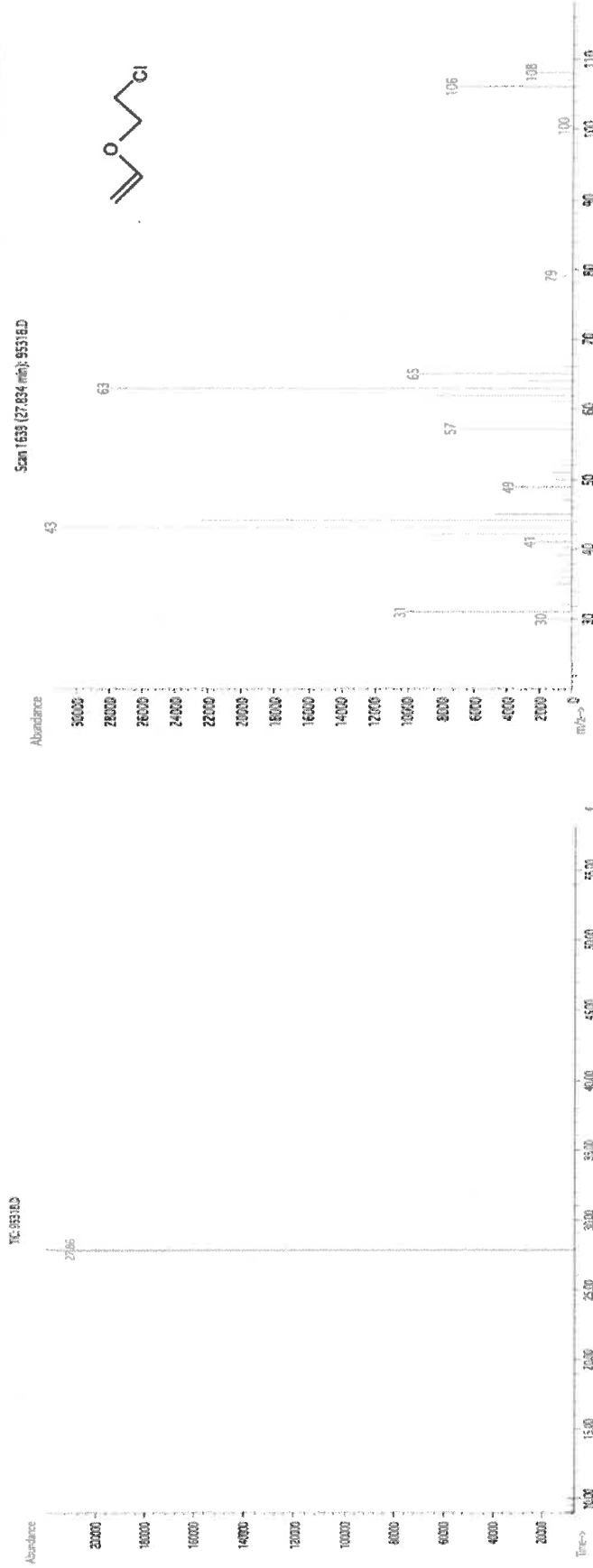
✓ 14630 to
✓ 14649

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 (%)	Purity Uncertainty	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: GC6MSD-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).

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.



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

✓ 14630 to
✓ 14649

Weight(s) shown below were combined and diluted to (mL):

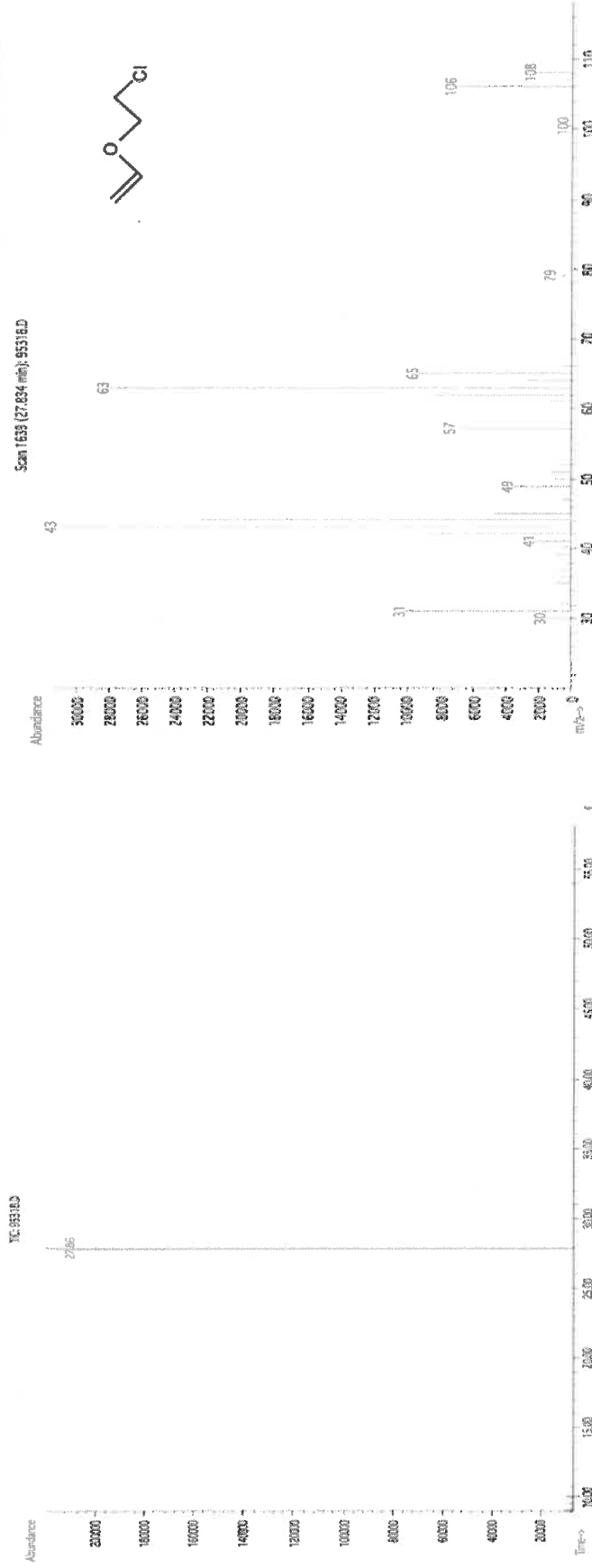
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Expanded Uncertainty (Solvent Safety Info. On Attached pg.)
Uncertainty (±) (µg/mL) CAS# OSHA PEL (TWA) LDSO

SDS Information

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: GC6MSD-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).

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	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 WEIGHT REPORT

Part Number:
Lot Number:
Description:

95318
120524
2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test ID#:

120527
Refrigerate (4 °C)
10000
6UTB

Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

50.0

✓ 14630 to
✓ 14649

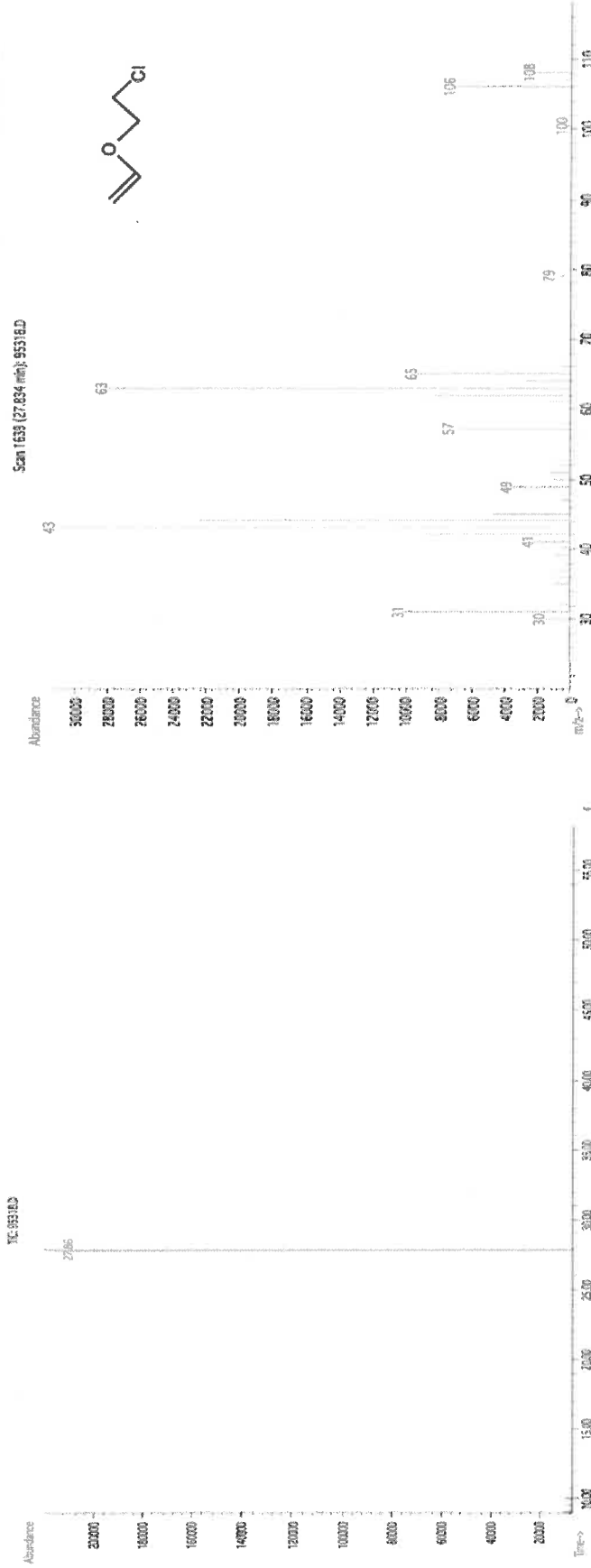
Formulated By: Prashant Chauhan 120524
Reviewed By: Pedro L. Rentas 120524

SDS Information

Expanded Uncertainty (Solvent Safety Info. On Attached pg.)
Uncertainty (±) (µg/mL) CAS# OSHA PEL (TWA) LD50

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	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: GC6MSD-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).

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 Rosotto Dr. Hamden CT. 06514	Emergency Telephone International Date Prepared/Revised	1-352-323-3500 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))	CAS#	% (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.



Dec 12/6/24
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

✓ 14630 to
✓ 14649

Weight(s) shown below were combined and diluted to (mL):

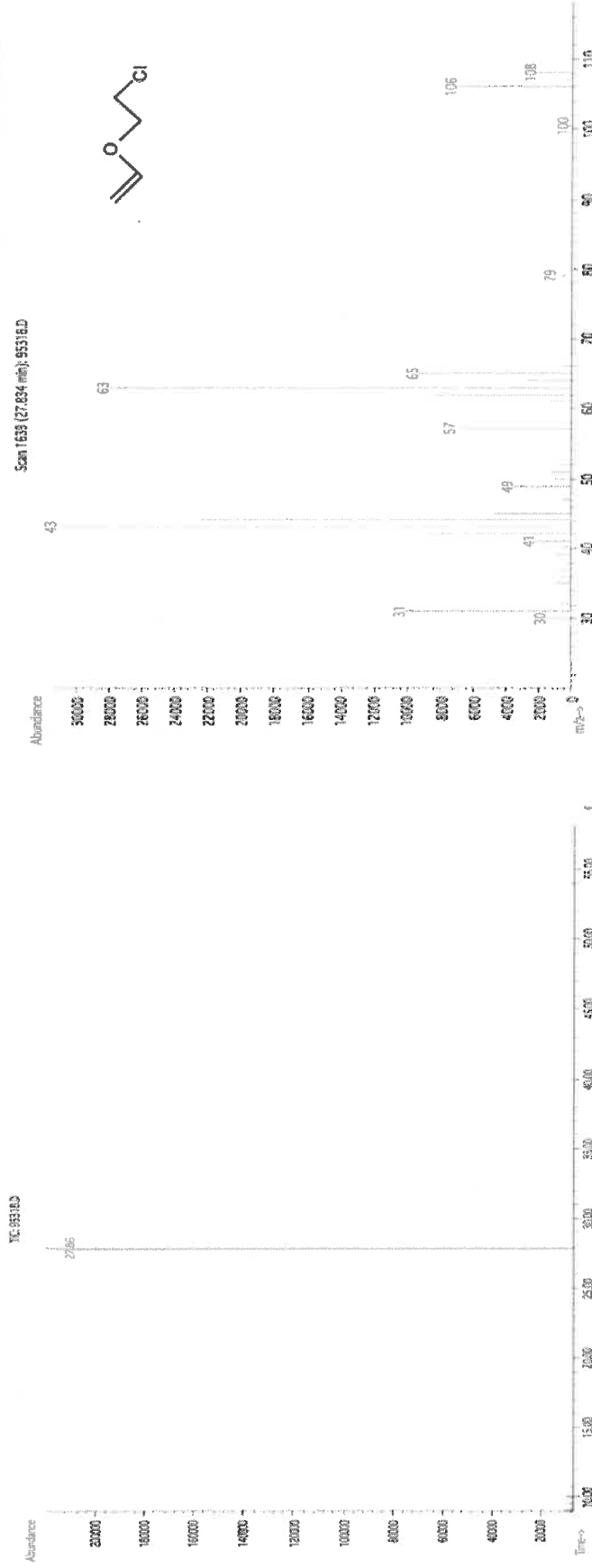
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Expanded Uncertainty (Solvent Safety Info. On Attached pg.)
Uncertainty (±) (µg/mL) CAS# OSHA PEL (TWA) LDSO

SDS Information

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: GC6MSD-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).

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 Rosotto Dr. Hamden CT. 06514	Emergency Telephone International Date Prepared/Revised	1-352-323-3500 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))	CAS#	% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1
		> 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: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



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.: A0181905
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 : February 28, 2025 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	tert-Butanol (TBA)	50,126.0 µg/mL	+/-	293.4988	µg/mL	Gravimetric
	CAS # 75-65-0		+/-	1,073.7654	µg/mL	Unstressed
	Purity 99%		+/-	1,104.9494	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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:

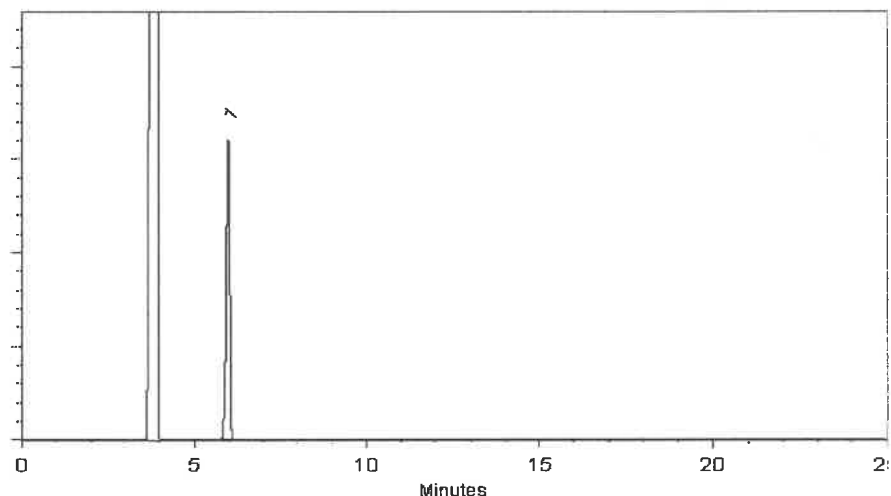
200°C

Det. Temp:

250°C

Det. Type:

FID



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.

John Friedline - Operations Technician I

Date Mixed: 16-Feb-2022

Balance: B442140311

Marlene Cowan - Operations Tech I

Date Passed: 21-Feb-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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.



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:

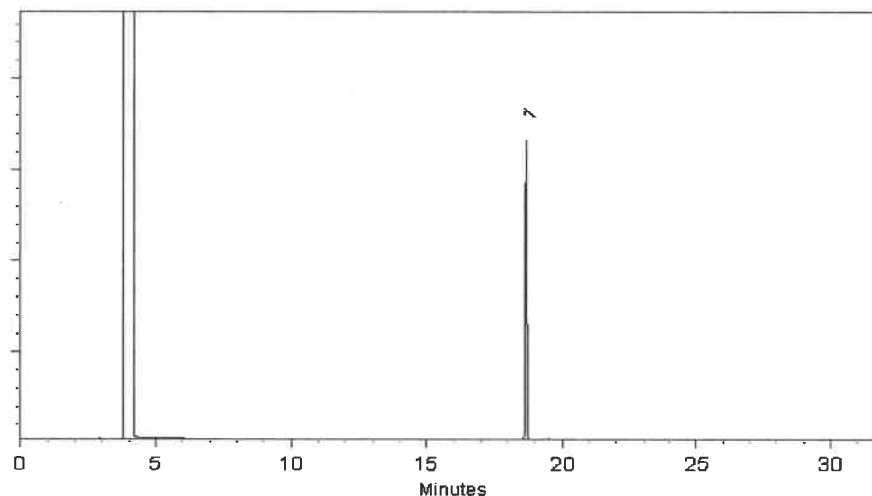
FID

Split Vent:

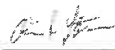
40 ml/min

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.



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. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 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	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* 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:

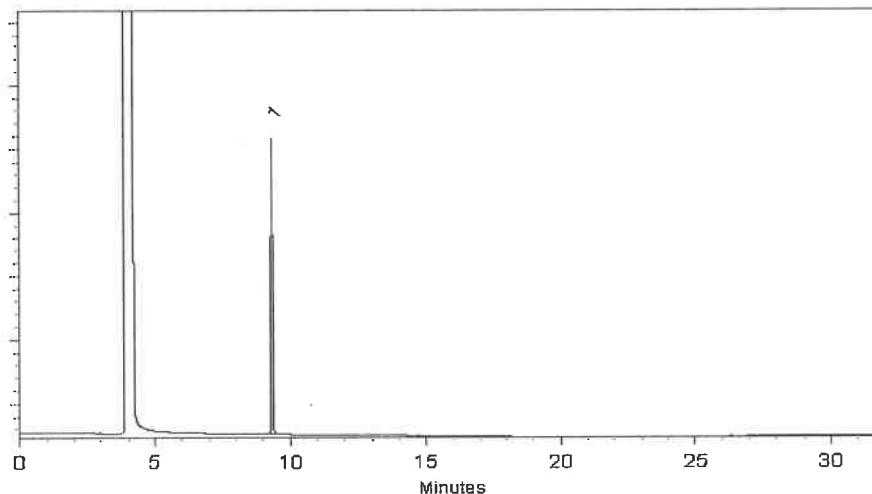
FID

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.


Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022 Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-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. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 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	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* 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:

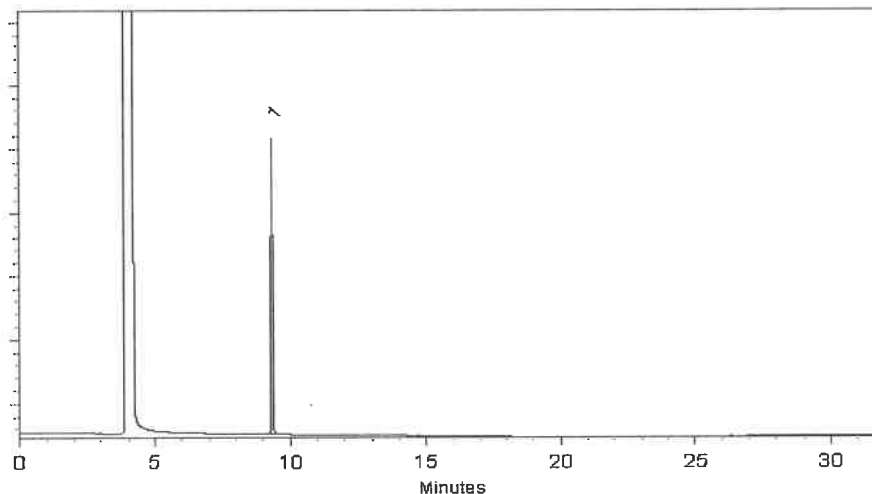
FID

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.


Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022 Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-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. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 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	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* 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:

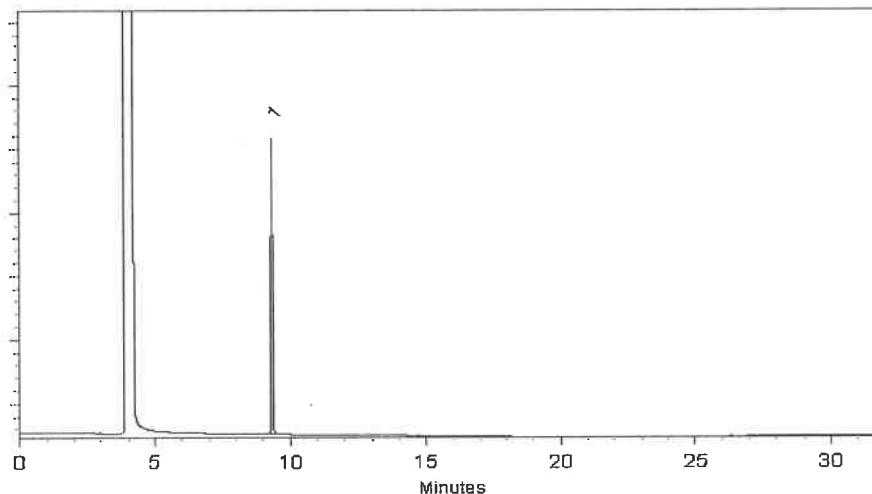
FID

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.


Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022 Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-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. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 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	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* 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:

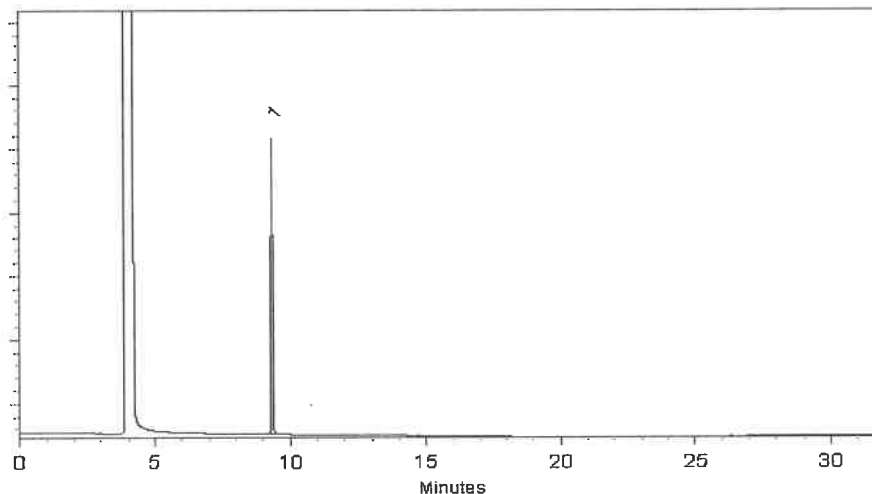
FID

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.


Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022 Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-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. : 555582 **Lot No.:** A0196865

Description : Custom 8260A/B Surrogate Mix
Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol,
1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **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	1,2-Dichloroethane-d4	17060-07-0	PR-32845	99%	25,036.0 µg/mL	+/- 1,417.9179
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	25,132.0 µg/mL	+/- 1,423.3549
3	Dibromofluoromethane	1868-53-7	022013	99%	25,040.0 µg/mL	+/- 1,418.1445
4	Toluene-d8	2037-26-5	PR-33397	99%	25,028.0 µg/mL	+/- 1,417.4648

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Russ Bookhamer - Operations Technician I

Date Mixed: 11-Apr-2023

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

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. : 555582 **Lot No.:** A0196865

Description : Custom 8260A/B Surrogate Mix
Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol,
1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **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	1,2-Dichloroethane-d4	17060-07-0	PR-32845	99%	25,036.0 µg/mL	+/- 1,417.9179
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	25,132.0 µg/mL	+/- 1,423.3549
3	Dibromofluoromethane	1868-53-7	022013	99%	25,040.0 µg/mL	+/- 1,418.1445
4	Toluene-d8	2037-26-5	PR-33397	99%	25,028.0 µg/mL	+/- 1,417.4648

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Russ Bookhamer - Operations Technician I

Date Mixed: 11-Apr-2023

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

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. : 30489 **Lot No.:** A0209618

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 : September 30, 2025 **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	SHBP3100	99%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* 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:

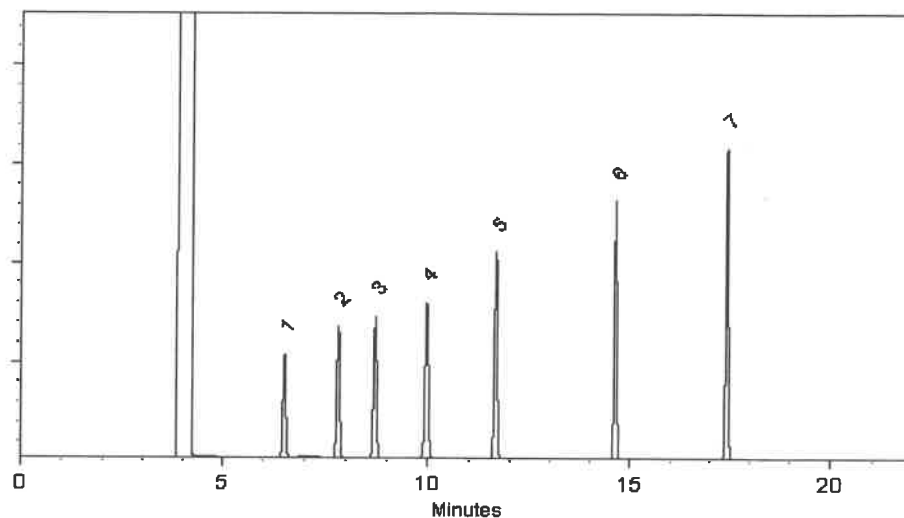
FID

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.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 28-Mar-2024

Balance Serial # B707717271

Dillon Murphy
Dillon Murphy - Operations Technician I

Date Passed: 01-Apr-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



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.:** A0209618
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 : September 30, 2025 **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	SHBP3100	99%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* 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:

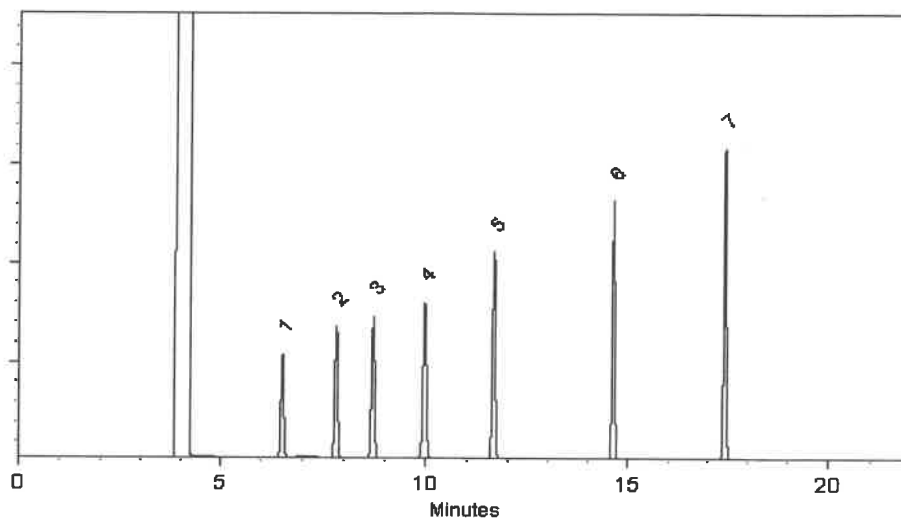
FID

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.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 28-Mar-2024

Balance Serial # B707717271

Dillon Murphy
Dillon Murphy - Operations Technician I

Date Passed: 01-Apr-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.



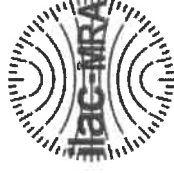
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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: 11275.10105



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

Dec 12/17/24
30 v. 4
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus
V14697-to-14726



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.:** A0210618
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 : July 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	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* 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:

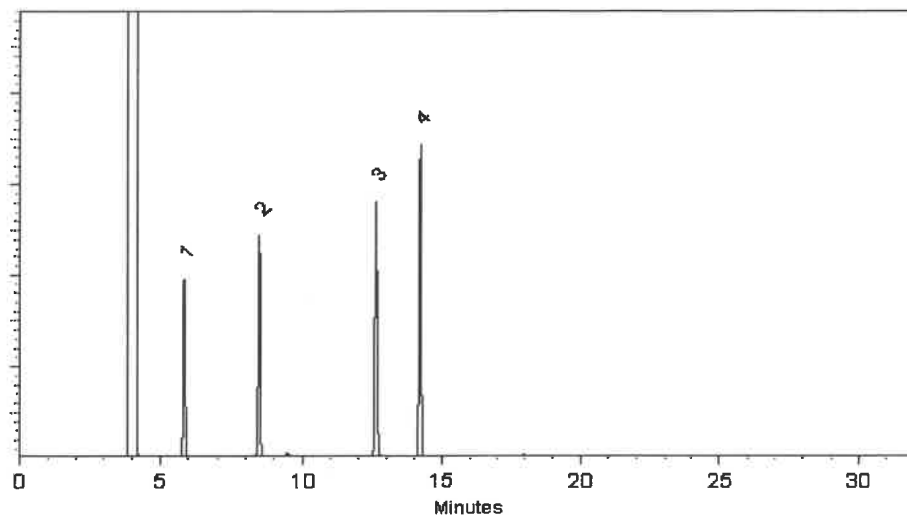
FID

Split Vent:

40 ml/min

Inj. Vol

1µl

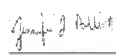


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-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

Dec 12/17/24
30 v. 4
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus
V14697-to-14726



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.:** A0210618
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 : July 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	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* 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:

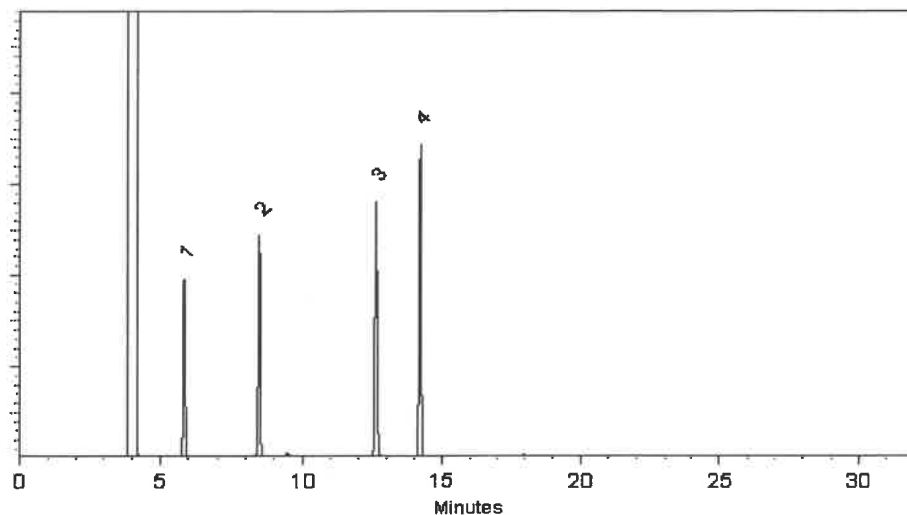
FID

Split Vent:

40 ml/min

Inj. Vol

1µl

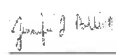


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-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

Dec 12/17/24
30 v. 4
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis
chromatographic plus
V14697-to-14726



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.:** A0210618
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 : July 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	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* 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:

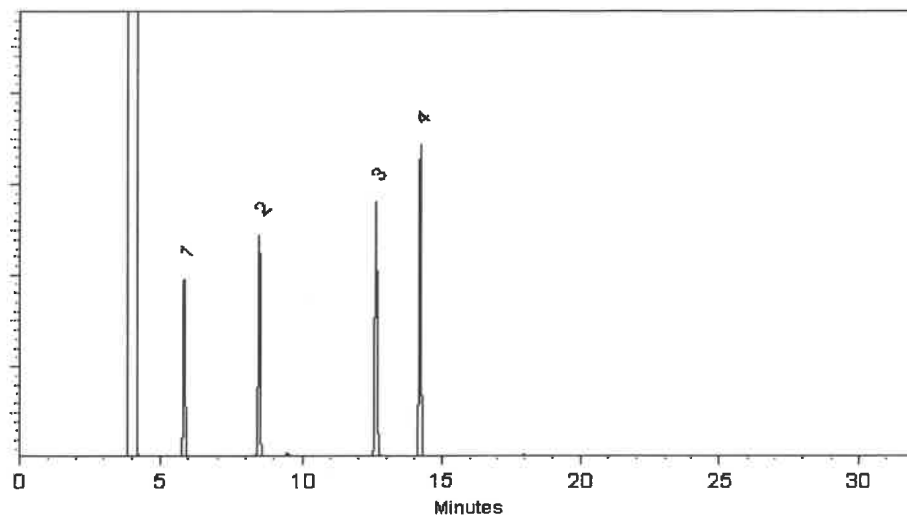
FID

Split Vent:

40 ml/min

Inj. Vol

1µl

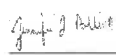


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-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
CERTIFIED REFERENCE MATERIAL

30 ml
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:

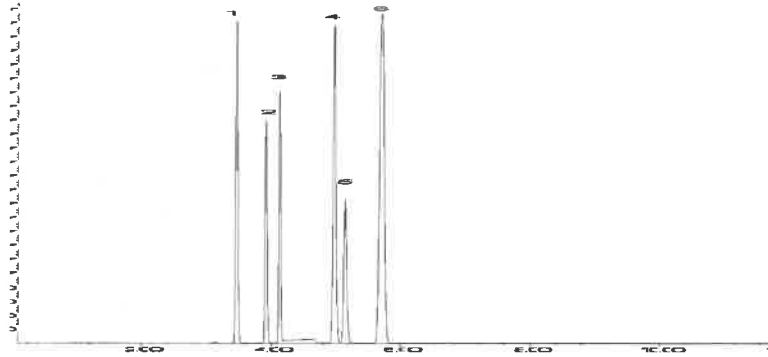
MSD

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
CERTIFIED REFERENCE MATERIAL

30 ml
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:

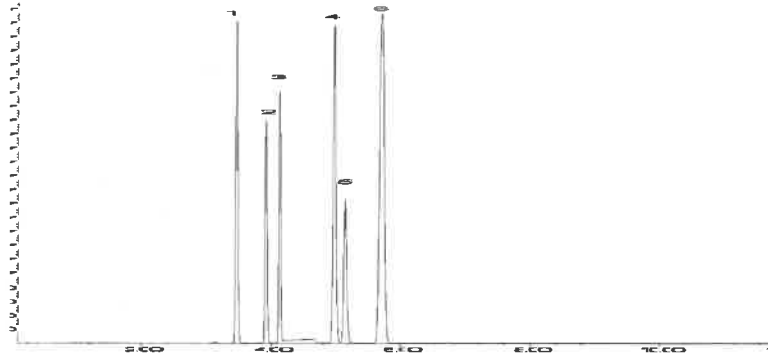
MSD

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:

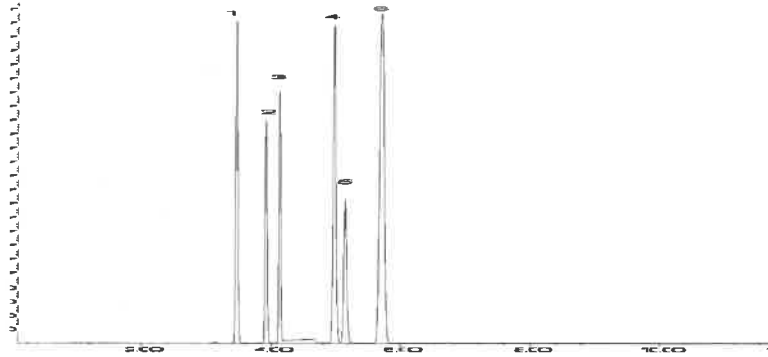
MSD

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:

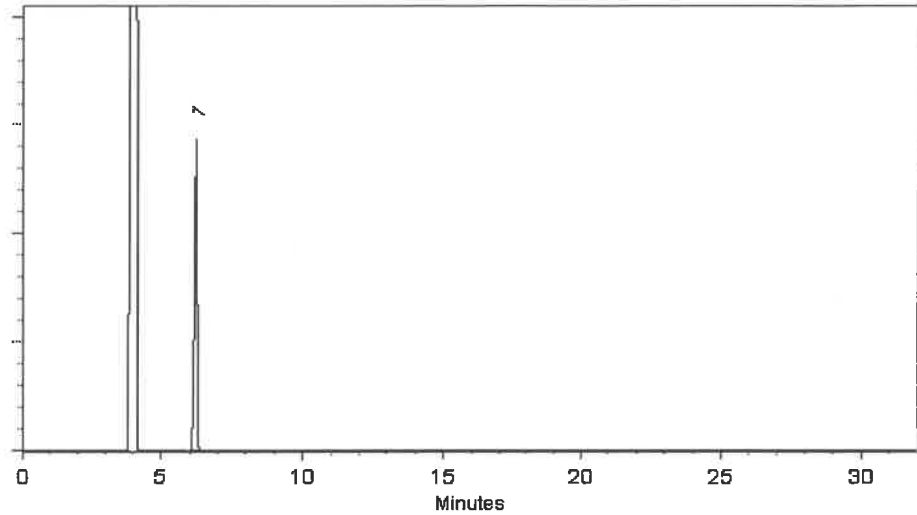
FID

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:

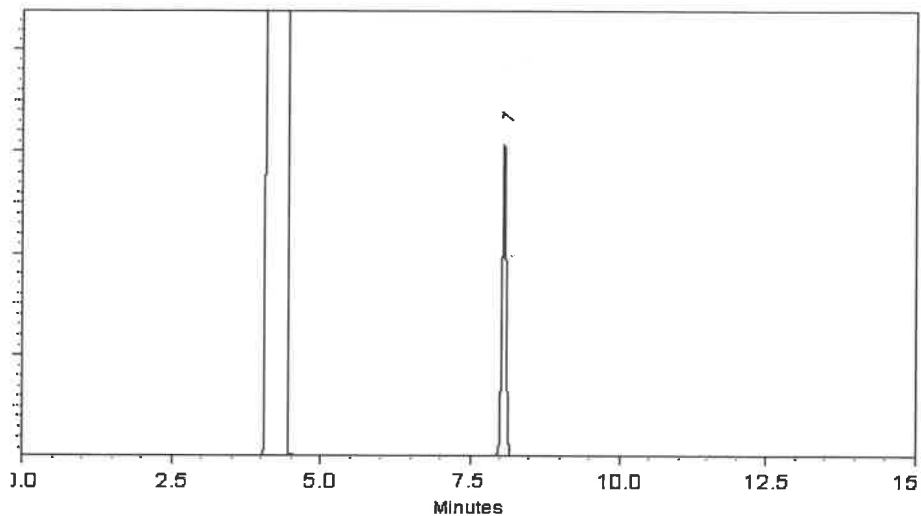
FID

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 Pollock 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

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:

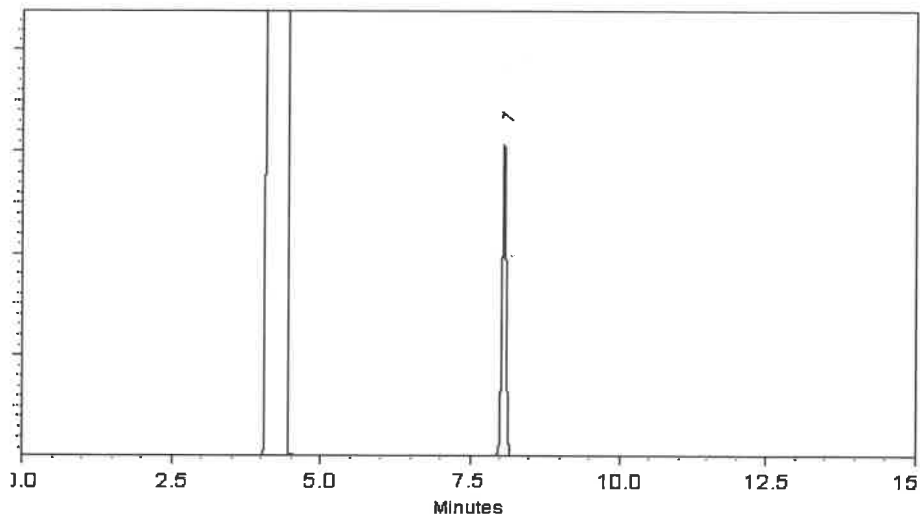
FID

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 Pollock 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

10 vol Rec 01/08/25
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

✓ 14793 to 14802



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-FL **Lot No.:** A0220563
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%	8,060.0 µg/mL	+/- 278.5905

* 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:

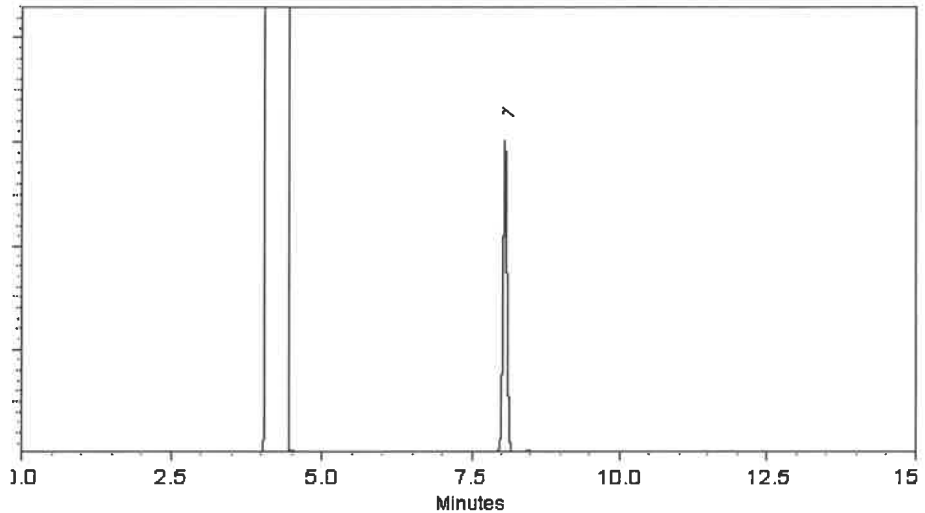
FID

Split Vent:

40 ml/min

Inj. Vol

1µl

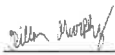


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckal - Mix Technician

Date Mixed: 30-Dec-2024

Balance Serial # B345965662


Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED
By Jennifer Pothier at 7:11 am, Jan 03, 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.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
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	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
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

Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
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	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
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

Jamie Ethier
Vice President Global Quality



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: GenVironment
ADDRESS: 8 CARRAGE
CITY: Shelburne STATE: NJ ZIP: 0787
ATTENTION:
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: FISAL
PROJECT NO.: LOCATION:
PROJECT MANAGER: BL
e-mail: gary@genvironment
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: GenVironment PO#:
ADDRESS: 8 CARRAGE
CITY: Shelburne STATE: NJ ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) STANDARD 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 hardcopy

VOC-HM-PAH
1 2 3 4 5 6 7 8 9

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9		
1.	DSP1	Sol	X		2/25/13	1225	5	X										
2.	P1					1230	1	X										
3.	P2					1230	1	X										
4.	P3					1245	1	X										
5.	P4	Sol	X		2/25/13	1300	5	X										
6.																		
7.																		
8.																		
9.																		
10.																		

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

RELINQUISHED BY SAMPLER: 1. <u>[Signature]</u>	DATE/TIME: <u>2.26.25 14:15</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>2-1</u> °C
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME:	RECEIVED BY: 2. <u>[Signature]</u>	Comments: <u>[Signature]</u>
RELINQUISHED BY SAMPLER: 3. <u>[Signature]</u>	DATE/TIME:	RECEIVED BY: 3. <u>[Signature]</u>	Page <u>1</u> of <u>1</u> CLIENT: ☐ Hand Delivered ☐ Other Shipment Complete ☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1448 GENV01
Client Name : G Environmental
Client Contact : Gary Landis
Invoice Name : G Environmental
Invoice Contact : Gary Landis

Order Date : 2/26/2025 2:42:13 PM
Project Name : Fisal
Receive DateTime : 2/26/2025 2:15:00 PM
Purchase Order :

Project Mgr :
Report Type : Level 1 NJ Reduce
EDD Type : Excel NJ
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1448-01	PSP1	Solid ~~02/25/2025~~	12:25					
			* 02/26/2025 *	VOCMS Group2		8260D		10 Bus. Days
Q1448-02	P1	Solid ~~02/25/2025~~	12:30					
				VOCMS Group2		8260D		10 Bus. Days
Q1448-03	P2	Solid ~~02/25/2025~~	12:20					
				VOCMS Group2		8260D		10 Bus. Days
Q1448-04	P3	Solid ~~02/25/2025~~	12:45					
				VOCMS Group2		8260D		10 Bus. Days
Q1448-05	P4	Solid ~~02/25/2025~~	13:00					
				VOCMS Group2		8260D		10 Bus. Days

Relinquished By :

Date / Time : 2-26-25 1505

Received By :

Date / Time : 02/26/25 15:05

Storage Area : VOA Refridgerator Room

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1449 GENV01

Client Name : G Environmental

Client Contact : Gary Landis

Invoice Name : G Environmental

Invoice Contact : Gary Landis

Order Date : 2/26/2025 2:43:35 PM

Project Name : 3015G

Receive DateTime : 2/26/2025 2:15:00 PM

Purchase Order :

Project Mgr :

Report Type : ~~Low~~ **NJ Reduce**

EDD Type : Excel NJ

Hard Copy Date :

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1449-01	MW2	Water	02/25/2025	13:55	VOCMS Group2		8260-Low		10 Bus. Days

Relinquished By :

Date / Time :

[Signature]
2-26-25 1505

Received By :

Date / Time :

[Signature]
02/26/25 15:05 R4 4

Storage Area : VOA Refridgerator Room