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Cover Page

Order ID : P1747

Project ID : Walter Gladwin Recreation Center, Bronx, NY

Client : LiRo Engineers, Inc.

Lab Sample Number	Client Sample Number
P1747-01	MW-01
P1747-02	MW-01-DUP
P1747-03	MW-01
P1747-04	MW-02
P1747-05	TWP-04
P1747-06	TRIP-BLANK-1
P1747-07	MW-01
P1747-08	MW-01-DUP
P1747-09	MW-02
P1747-10	TWP-04

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: 3/27/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

LiRo Engineers, Inc.
Project Name: Walter Gladwin Recreation Center, Bronx, NY
Project # N/A
Chemtech Project # P1747
Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:
10 Water samples were received on 03/13/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Anions Group1, CBOD5, Chloride, Dissolved ICP-TAL Metals, Dissolved Mercury, DISSOLVED METALS-TAL, Flash Point, Hexavalent Chromium, Mercury, Metals ICP-TAL, METALS-NYCD, METALS-TAL, Non-Polar Material, NYCDischarge, PCB, Pesticide-TCL, Phenolics, SVOC-NYCD, SVOC-TCL BNA -20, TKN, Total Nitrogen, TS, TSS, VOC-NYCD and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis of VOC-TCLVOA-10 was based on method 8260D..

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.

The %RSD is greater than 15% in the Initial Calibration method (82N030524W.M) for Methylene Chloride this compound is passing on Linear Regression.

The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

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

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Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

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

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

Signature_____

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DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P1747

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: PATEL VAISHALI **Date:** 03/27/2024

2nd Level QA Review Signature: _____ **Date:** _____

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LAB CHRONICLE

OrderID:	P1747	**OrderDate:**	3/13/2024 12:28:00 PM
Client:	LiRo Engineers, Inc.	**Project:**	Walter Gladwin Recreation Center, Bronx, NY
Contact:	Steve Frank	**Location:**	I21,I31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P1747-01	**MW-01**	**Water**			**03/12/24**			**03/13/24**
			VOC-TCLVOA-10	8260-Low			03/14/24	
P1747-02	**MW-01-DUP**	**Water**			**03/12/24**			**03/13/24**
			VOC-TCLVOA-10	8260-Low			03/14/24	
P1747-03	**MW-01**	**Water**			**03/13/24**			**03/13/24**
			VOC-NYCD	624.1			03/14/24	
P1747-04	**MW-02**	**Water**			**03/12/24**			**03/13/24**
			VOC-TCLVOA-10	8260-Low			03/14/24	
P1747-05	**TWP-04**	**Water**			**03/12/24**			**03/13/24**
			VOC-TCLVOA-10	8260-Low			03/14/24	
P1747-06	**TRIP-BLANK-1**	**Water**			**03/12/24**			**03/13/24**
			VOC-TCLVOA-10	8260-Low			03/14/24	

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Hit Summary Sheet
SW-846

SDG No.: P1747

Client: LiRo Engineers, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**MW-01**							
P1747-01	MW-01	Water	Chloroform	31.0		0.26	1.00	ug/L
P1747-01	MW-01	Water	Bromodichloromethane	2.90		0.24	1.00	ug/L
			Total Voc :	33.9				
			Total Concentration:	33.9				
Client ID:	**MW-01-DUP**							
P1747-02	MW-01-DUP	Water	Acetone	2.30	J	1.40	5.00	ug/L
P1747-02	MW-01-DUP	Water	Chloroform	31.4		0.26	1.00	ug/L
P1747-02	MW-01-DUP	Water	Bromodichloromethane	2.90		0.24	1.00	ug/L
			Total Voc :	36.6				
			Total Concentration:	36.6				
Client ID:	**TWP-04**							
P1747-05	TWP-04	Water	Acetone	2.60	J	1.40	5.00	ug/L
			Total Voc :	2.60				
			Total Concentration:	2.60				

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QC SUMMARY

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Surrogate Summary

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
P1747-01	MW-01	1,2-Dichloroethane-d4	50	52.5	105	74	125
		Dibromofluoromethane	50	52.5	105	75	124
		Toluene-d8	50	52.2	104	86	113
		4-Bromofluorobenzene	50	46.9	94	64	133
P1747-02	MW-01-DUP	1,2-Dichloroethane-d4	50	53.3	107	74	125
		Dibromofluoromethane	50	52.0	104	75	124
		Toluene-d8	50	52.3	105	86	113
		4-Bromofluorobenzene	50	44.7	89	64	133
P1747-04	MW-02	1,2-Dichloroethane-d4	50	53.6	107	74	125
		Dibromofluoromethane	50	52.2	104	75	124
		Toluene-d8	50	51.7	103	86	113
		4-Bromofluorobenzene	50	46.3	93	64	133
P1747-05	TWP-04	1,2-Dichloroethane-d4	50	53.4	107	74	125
		Dibromofluoromethane	50	52.9	106	75	124
		Toluene-d8	50	51.9	104	86	113
		4-Bromofluorobenzene	50	46.8	94	64	133
P1747-06	TRIP-BLANK-1	1,2-Dichloroethane-d4	50	49.5	99	74	125
		Dibromofluoromethane	50	51.3	103	75	124
		Toluene-d8	50	52.0	104	86	113
		4-Bromofluorobenzene	50	44.4	89	64	133
VN0314WBL01	VN0314WBL01	1,2-Dichloroethane-d4	50	52.4	105	74	125
		Dibromofluoromethane	50	51.6	103	75	124
		Toluene-d8	50	51.8	104	86	113
		4-Bromofluorobenzene	50	44.9	90	64	133
VN0314WBS01	VN0314WBS01	1,2-Dichloroethane-d4	50	53.3	107	74	125
		Dibromofluoromethane	50	53.2	106	75	124
		Toluene-d8	50	52.3	105	86	113
		4-Bromofluorobenzene	50	51.4	103	64	133
VN0314WBSD0	VN0314WBSD01	1,2-Dichloroethane-d4	50	54.6	109	74	125
		Dibromofluoromethane	50	52.7	105	75	124
		Toluene-d8	50	51.4	103	86	113
		4-Bromofluorobenzene	50	52.2	104	64	133

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low **Datafile :** VN081404.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0314WBS01	Dichlorodifluoromethane	20	20.2	ug/L	101			69	116	
	Chloromethane	20	18.4	ug/L	92			65	116	
	Vinyl chloride	20	18.1	ug/L	91			65	117	
	Bromomethane	20	18.5	ug/L	93			58	125	
	Chloroethane	20	19.2	ug/L	96			56	128	
	Trichlorofluoromethane	20	19.6	ug/L	98			73	115	
	1,1,2-Trichlorotrifluoroethane	20	19.7	ug/L	99			80	112	
	1,1-Dichloroethene	20	19.1	ug/L	96			74	110	
	Acetone	100	100	ug/L	100			60	125	
	Carbon disulfide	20	17.0	ug/L	85			64	112	
	Methyl tert-butyl Ether	20	19.1	ug/L	96			78	114	
	Methyl Acetate	20	23.5	ug/L	117			67	125	
	Methylene Chloride	20	20.4	ug/L	102			72	114	
	trans-1,2-Dichloroethene	20	17.6	ug/L	88			75	108	
	1,1-Dichloroethane	20	20.0	ug/L	100			78	112	
	Cyclohexane	20	18.9	ug/L	95			75	110	
	2-Butanone	100	100	ug/L	100			65	122	
	Carbon Tetrachloride	20	20.4	ug/L	102			77	113	
	cis-1,2-Dichloroethene	20	19.5	ug/L	98			77	110	
	Bromochloromethane	20	22.0	ug/L	110			70	124	
	Chloroform	20	20.8	ug/L	104			79	113	
	1,1,1-Trichloroethane	20	20.6	ug/L	103			80	108	
	Methylcyclohexane	20	18.3	ug/L	92			72	115	
	Benzene	20	19.2	ug/L	96			82	109	
	1,2-Dichloroethane	20	20.6	ug/L	103			80	115	
	Trichloroethene	20	19.0	ug/L	95			77	113	
	1,2-Dichloropropane	20	19.7	ug/L	99			83	111	
	Bromodichloromethane	20	20.5	ug/L	103			83	110	
	4-Methyl-2-Pentanone	100	100	ug/L	100			74	118	
	Toluene	20	19.8	ug/L	99			82	110	
	t-1,3-Dichloropropene	20	19.7	ug/L	99			79	110	
	cis-1,3-Dichloropropene	20	19.7	ug/L	99			82	110	
	1,1,2-Trichloroethane	20	20.0	ug/L	100			83	112	
	2-Hexanone	100	100	ug/L	100			73	117	
	Dibromochloromethane	20	21.0	ug/L	105			82	110	
	1,2-Dibromoethane	20	19.8	ug/L	99			81	110	
	Tetrachloroethene	20	19.7	ug/L	99			67	123	
	Chlorobenzene	20	19.8	ug/L	99			82	109	
	Ethyl Benzene	20	19.3	ug/L	97			83	109	
	m/p-Xylenes	40	38.2	ug/L	96			82	110	
	o-Xylene	20	18.9	ug/L	95			83	109	
	Styrene	20	20.1	ug/L	101			80	111	
	Bromoform	20	20.0	ug/L	100			79	109	
	Isopropylbenzene	20	19.8	ug/L	99			83	112	
	1,1,2,2-Tetrachloroethane	20	19.5	ug/L	98			76	118	
	1,3-Dichlorobenzene	20	18.6	ug/L	93			82	108	
	1,4-Dichlorobenzene	20	19.1	ug/L	96			82	107	
	1,2-Dichlorobenzene	20	19.0	ug/L	95			82	109	
	1,2-Dibromo-3-Chloropropane	20	18.8	ug/L	94			68	112	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low **Datafile :** VN081404.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0314WBS01	1,2,4-Trichlorobenzene	20	18.7	ug/L	94			55	133	
	1,2,3-Trichlorobenzene	20	18.6	ug/L	93			59	129	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low **Datafile :** VN081405.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0314WBSD01	Dichlorodifluoromethane	20	20.6	ug/L	103	2		69	116	20
	Chloromethane	20	17.5	ug/L	88	4		65	116	20
	Vinyl chloride	20	18.0	ug/L	90	1		65	117	20
	Bromomethane	20	18.1	ug/L	91	2		58	125	20
	Chloroethane	20	18.2	ug/L	91	5		56	128	20
	Trichlorofluoromethane	20	19.1	ug/L	96	2		73	115	20
	1,1,2-Trichlorotrifluoroethane	20	18.6	ug/L	93	6		80	112	20
	1,1-Dichloroethene	20	18.6	ug/L	93	3		74	110	20
	Acetone	100	99.8	ug/L	100	0		60	125	20
	Carbon disulfide	20	16.7	ug/L	84	1		64	112	20
	Methyl tert-butyl Ether	20	20.0	ug/L	100	4		78	114	20
	Methyl Acetate	20	23.7	ug/L	119	2		67	125	20
	Methylene Chloride	20	19.9	ug/L	100	2		72	114	20
	trans-1,2-Dichloroethene	20	18.0	ug/L	90	2		75	108	20
	1,1-Dichloroethane	20	19.8	ug/L	99	1		78	112	20
	Cyclohexane	20	17.4	ug/L	87	9		75	110	20
	2-Butanone	100	98.0	ug/L	98	2		65	122	20
	Carbon Tetrachloride	20	20.3	ug/L	102	0		77	113	20
	cis-1,2-Dichloroethene	20	19.2	ug/L	96	2		77	110	20
	Bromochloromethane	20	21.1	ug/L	106	4		70	124	20
	Chloroform	20	20.4	ug/L	102	2		79	113	20
	1,1,1-Trichloroethane	20	19.7	ug/L	99	4		80	108	20
	Methylcyclohexane	20	18.2	ug/L	91	1		72	115	20
	Benzene	20	19.4	ug/L	97	1		82	109	20
	1,2-Dichloroethane	20	21.1	ug/L	106	3		80	115	20
	Trichloroethene	20	19.9	ug/L	100	5		77	113	20
	1,2-Dichloropropane	20	19.6	ug/L	98	1		83	111	20
	Bromodichloromethane	20	20.8	ug/L	104	1		83	110	20
	4-Methyl-2-Pentanone	100	100	ug/L	100	0		74	118	20
	Toluene	20	19.7	ug/L	99	0		82	110	20
	t-1,3-Dichloropropene	20	20.1	ug/L	101	2		79	110	20
	cis-1,3-Dichloropropene	20	20.1	ug/L	101	2		82	110	20
	1,1,2-Trichloroethane	20	21.2	ug/L	106	6		83	112	20
	2-Hexanone	100	100	ug/L	100	0		73	117	20
	Dibromochloromethane	20	21.3	ug/L	106	1		82	110	20
	1,2-Dibromoethane	20	20.7	ug/L	104	5		81	110	20
	Tetrachloroethene	20	19.1	ug/L	96	3		67	123	20
	Chlorobenzene	20	19.3	ug/L	97	2		82	109	20
	Ethyl Benzene	20	19.1	ug/L	96	1		83	109	20
	m/p-Xylenes	40	38.9	ug/L	97	1		82	110	20
	o-Xylene	20	19.1	ug/L	96	1		83	109	20
	Styrene	20	20.2	ug/L	101	0		80	111	20
	Bromoform	20	20.4	ug/L	102	2		79	109	20
	Isopropylbenzene	20	18.7	ug/L	94	5		83	112	20
	1,1,2,2-Tetrachloroethane	20	19.3	ug/L	97	1		76	118	20
	1,3-Dichlorobenzene	20	18.4	ug/L	92	1		82	108	20
	1,4-Dichlorobenzene	20	18.4	ug/L	92	4		82	107	20
	1,2-Dichlorobenzene	20	18.3	ug/L	92	3		82	109	20
	1,2-Dibromo-3-Chloropropane	20	18.7	ug/L	94	0		68	112	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low **Datafile :** VN081405.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0314WBSD01	1,2,4-Trichlorobenzene	20	18.0	ug/L	90	4		55	133	20
	1,2,3-Trichlorobenzene	20	17.8	ug/L	89	4		59	129	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0314WBL01

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG NO.: P1747

Lab File ID: VN081403.D Lab Sample ID: VN0314WBL01

Date Analyzed: 03/14/2024 Time Analyzed: 12:20

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

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0314WBS01	VN0314WBS01	VN081404.D	03/14/2024
VN0314WBSD01	VN0314WBSD01	VN081405.D	03/14/2024
TRIP-BLANK-1	P1747-06	VN081410.D	03/14/2024
MW-01	P1747-01	VN081412.D	03/14/2024
MW-01-DUP	P1747-02	VN081413.D	03/14/2024
MW-02	P1747-04	VN081414.D	03/14/2024
TWP-04	P1747-05	VN081415.D	03/14/2024

COMMENTS:

Raw Data: **VN081302.D**

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG NO.: P1747

Lab File ID: VN081302.D BFB Injection Date: 03/05/2024

Instrument ID: MSVOA_N BFB Injection Time: 09:31

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.3
75	30.0 - 60.0% of mass 95	52.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.7 (1.1) 1
174	50.0 - 100.0% of mass 95	69.3
175	5.0 - 9.0% of mass 174	5 (7.2) 1
176	95.0 - 101.0% of mass 174	67.1 (96.9) 1
177	5.0 - 9.0% of mass 176	3.7 (5.5) 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
VSTDICC100	VSTDICC100	VN081304.D	03/05/2024	12:00
VSTDICCC050	VSTDICCC050	VN081305.D	03/05/2024	12:24
VSTDICC020	VSTDICC020	VN081306.D	03/05/2024	12:48
VSTDICC010	VSTDICC010	VN081307.D	03/05/2024	13:12
VSTDICC005	VSTDICC005	VN081308.D	03/05/2024	13:36
VSTDICC001	VSTDICC001	VN081309.D	03/05/2024	13:59

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG NO.: P1747

Lab File ID: VN081400.D BFB Injection Date: 03/14/2024

Instrument ID: MSVOA_N BFB Injection Time: 10:49

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.1
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	7.1
173	Less than 2.0% of mass 174	0.3 (0.4) 1
174	50.0 - 100.0% of mass 95	71
175	5.0 - 9.0% of mass 174	5.3 (7.5) 1
176	95.0 - 101.0% of mass 174	68.2 (96.1) 1
177	5.0 - 9.0% of mass 176	4.5 (6.6) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN081401.D	03/14/2024	11:22
VN0314WBL01	VN0314WBL01	VN081403.D	03/14/2024	12:20
VN0314WBS01	VN0314WBS01	VN081404.D	03/14/2024	12:44
VN0314WBSD01	VN0314WBSD01	VN081405.D	03/14/2024	13:18
TRIP-BLANK-1	P1747-06	VN081410.D	03/14/2024	15:17
MW-01	P1747-01	VN081412.D	03/14/2024	16:05
MW-01-DUP	P1747-02	VN081413.D	03/14/2024	16:29
MW-02	P1747-04	VN081414.D	03/14/2024	16:53
TWP-04	P1747-05	VN081415.D	03/14/2024	17:17

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG NO.: P1747

Lab File ID: VN081401.D Date Analyzed: 03/14/2024

Instrument ID: MSVOA_N Time Analyzed: 11:22

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

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	340353	8.22	595569	9.10	547809	11.87
UPPER LIMIT	680706	8.724	1191140	9.6	1095620	12.365
LOWER LIMIT	170177	7.724	297785	8.6	273905	11.365
EPA SAMPLE NO.						
MW-01	303621	8.23	551652	9.11	483758	11.87
MW-01-DUP	297408	8.23	548071	9.11	467622	11.87
MW-02	287608	8.23	536366	9.11	459785	11.87
TWP-04	293736	8.23	538371	9.11	468090	11.87
TRIP-BLANK-1	344974	8.22	628116	9.11	532846	11.87
VN0314WBL01	317492	8.23	583725	9.11	501625	11.87
VN0314WBS01	299990	8.23	553441	9.11	502583	11.87
VN0314WBSD01	294169	8.23	534919	9.11	486415	11.87

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

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

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG NO.: P1747

Lab File ID: VN081401.D Date Analyzed: 03/14/2024

Instrument ID: MSVOA_N Time Analyzed: 11:22

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

	IS4 AREA #	RT #				
12 HOUR STD	252603	13.794				
UPPER LIMIT	505206	14.294				
LOWER LIMIT	126302	13.294				
EPA SAMPLE NO.						
MW-01	192317	13.79				
MW-01-DUP	179160	13.79				
MW-02	179683	13.79				
TWP-04	182546	13.79				
TRIP-BLANK-1	205915	13.79				
VN0314WBL01	187883	13.79				
VN0314WBS01	222348	13.79				
VN0314WBSD01	221293	13.79				

IS4 = 1,4-Dichlorobenzene-d4

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

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

CHEMTECH

SAMPLE DATA

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01	SDG No.:	P1747
Lab Sample ID:	P1747-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081412.D	1		03/14/24 16:05	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.34	U	0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	1.40	U	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.60	U	0.60	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
74-97-5	Bromochloromethane	0.18	U	0.18	1.00	ug/L
67-66-3	Chloroform	31.0		0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	2.90		0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.18	U	0.18	1.00	ug/L

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01	SDG No.:	P1747
Lab Sample ID:	P1747-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081412.D	1		03/14/24 16:05	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.5		74 - 125	105%	SPK: 50
1868-53-7	Dibromofluoromethane	52.4		75 - 124	105%	SPK: 50
2037-26-5	Toluene-d8	52.2		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.9		64 - 133	94%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	304000	8.23			
540-36-3	1,4-Difluorobenzene	552000	9.106			
3114-55-4	Chlorobenzene-d5	484000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	192000	13.794			

Raw Data: **VN081412.D**

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01	SDG No.:	P1747
Lab Sample ID:	P1747-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081412.D	1		03/14/24 16:05	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081412.D
Acq On : 14 Mar 2024 16:05
Operator : JC\MD
Sample : P1747-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Quant Time: Mar 15 01:14:22 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

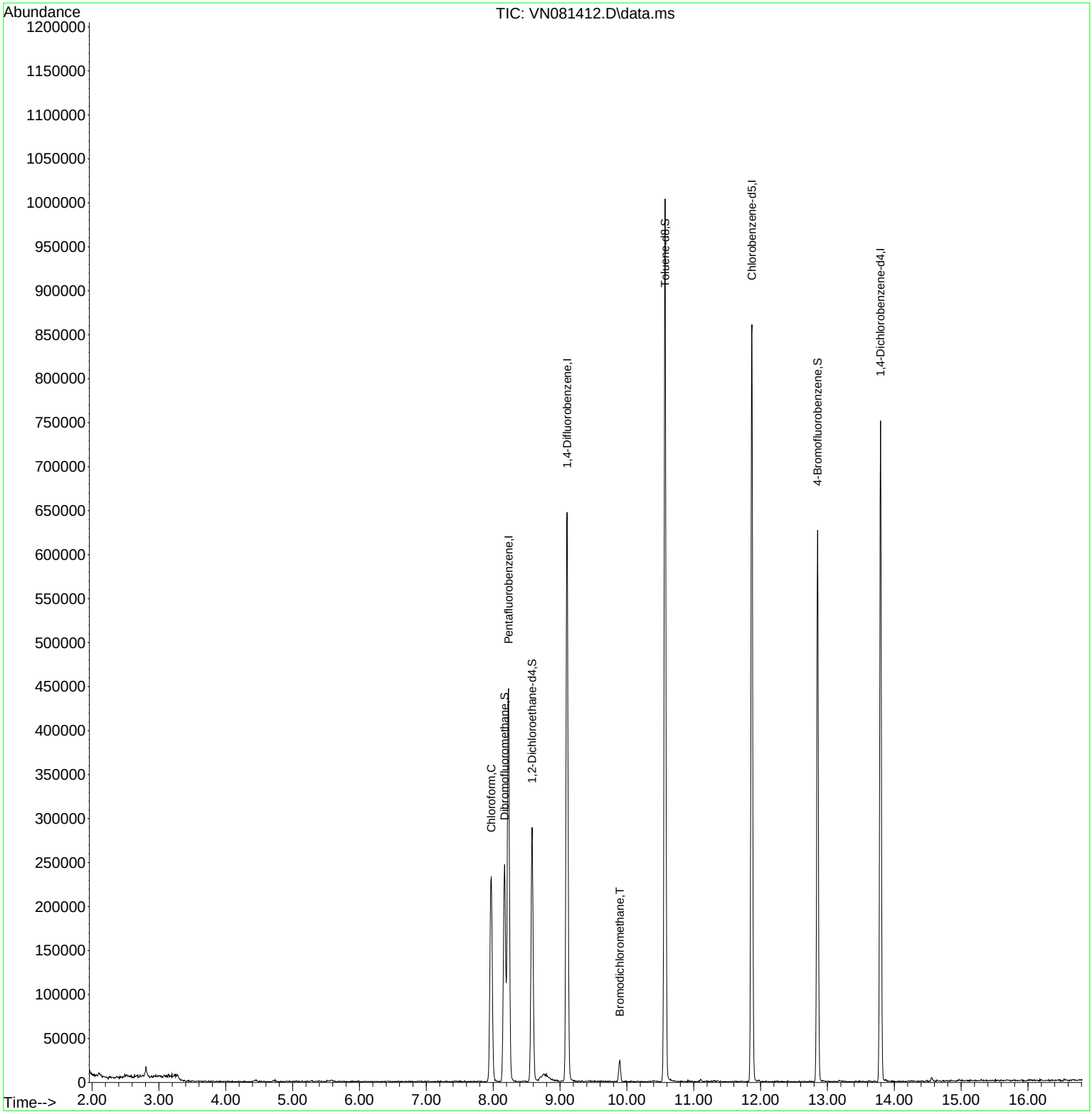
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	303621	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	551652	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	483758	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	192317	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	230511	52.508	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 105.020%			
35) Dibromofluoromethane	8.171	113	177254	52.445	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 104.900%			
50) Toluene-d8	10.571	98	659893	52.230	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 104.460%			
62) 4-Bromofluorobenzene	12.853	95	209487	46.912	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 93.820%			
Target Compounds						Qvalue
30) Chloroform	7.971	83	229758	31.011	ug/l	100
47) Bromodichloromethane	9.894	83	16265	2.907	ug/l	92

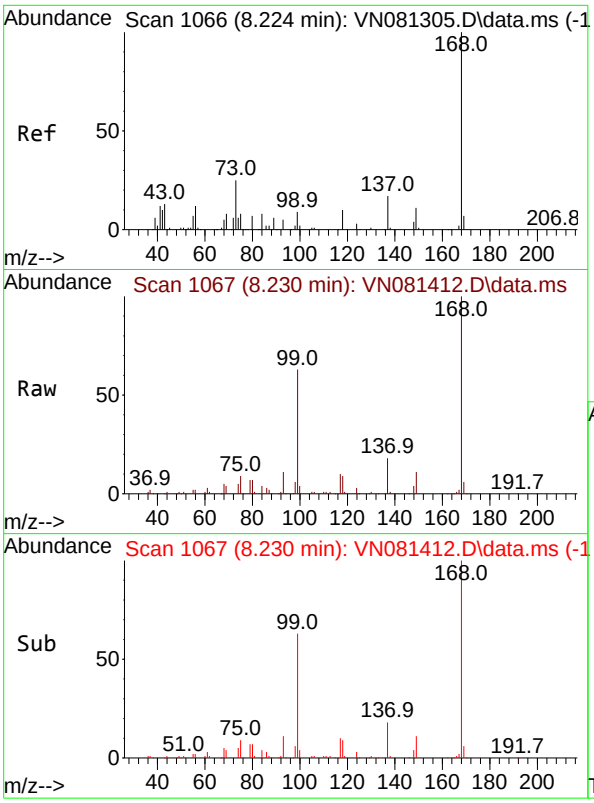
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081412.D
Acq On : 14 Mar 2024 16:05
Operator : JC\MD
Sample : P1747-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Quant Time: Mar 15 01:14:22 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration



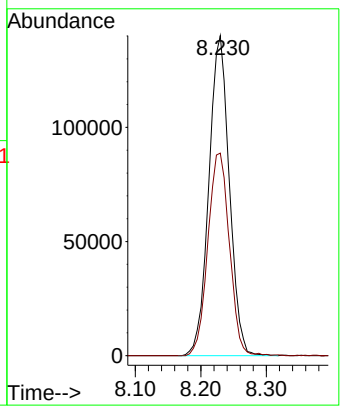


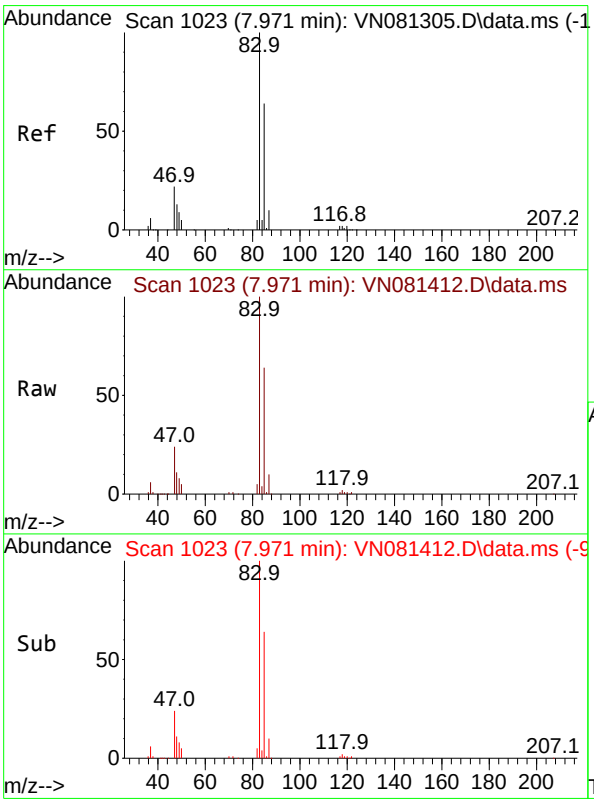
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Tgt Ion:168 Resp: 303621

Ion	Ratio	Lower	Upper
168	100		
99	63.3	59.9	89.9

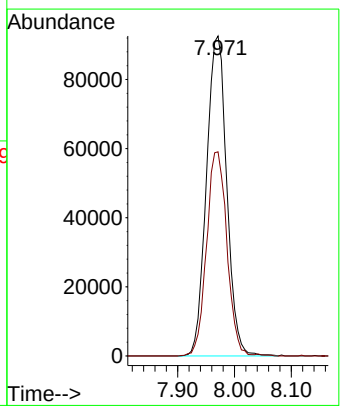


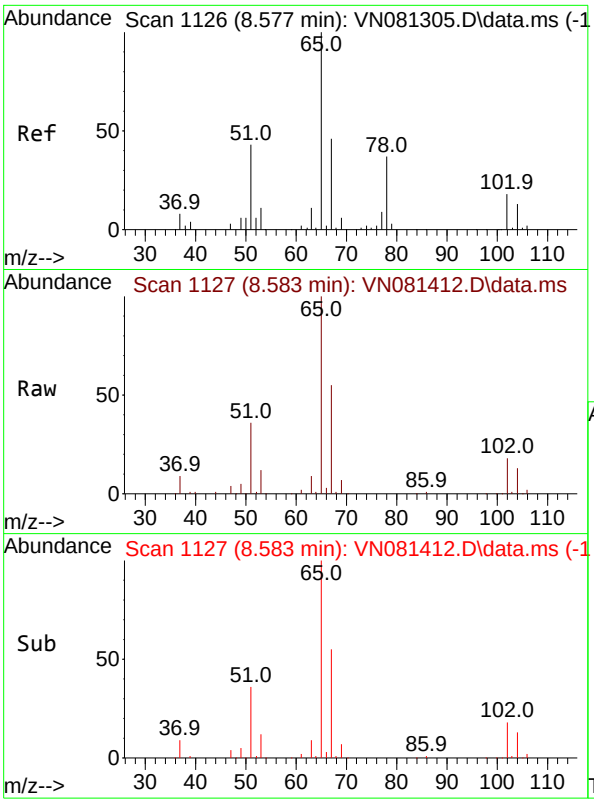


#30
Chloroform
Concen: 31.011 ug/l
RT: 7.971 min Scan# 1023
Delta R.T. 0.000 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Tgt Ion: 83 Resp: 229758

Ion	Ratio	Lower	Upper
83	100		
85	63.8	51.0	76.6



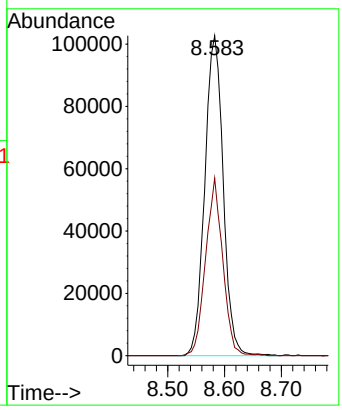


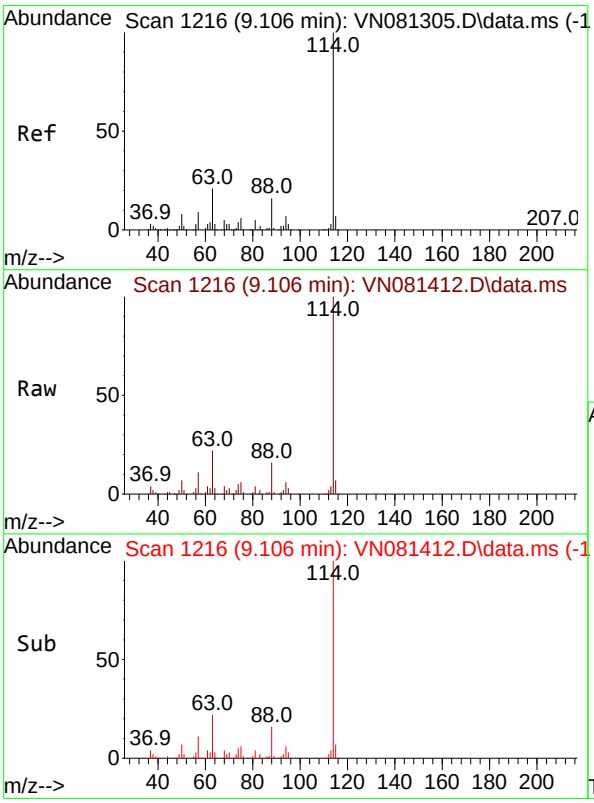
#33
1,2-Dichloroethane-d4
Concen: 52.508 ug/l
RT: 8.583 min Scan# 11
Delta R.T. 0.006 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Tgt Ion: 65 Resp: 230511

Ion	Ratio	Lower	Upper
65	100		
67	51.8	0.0	102.4

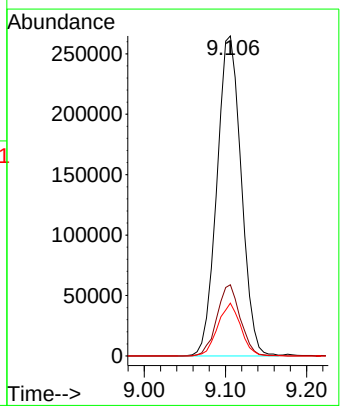


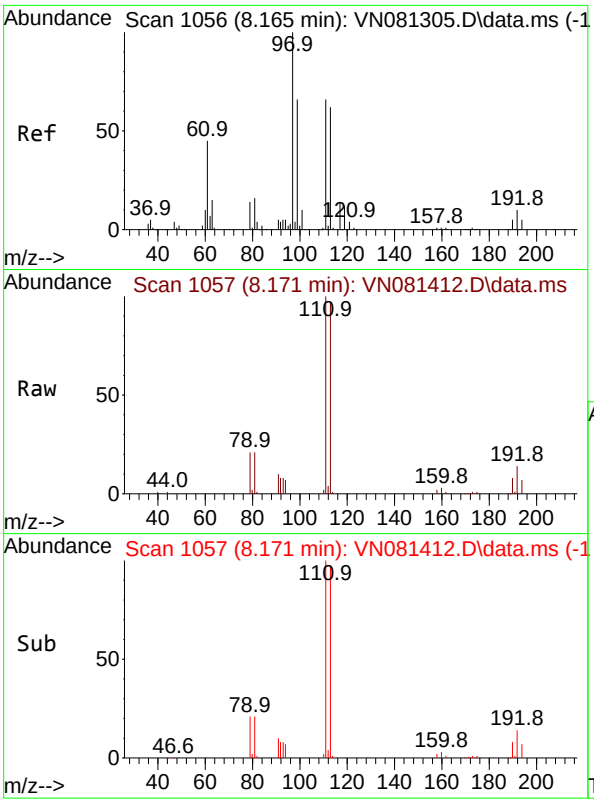


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. 0.000 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Tgt Ion:114 Resp: 551652

Ion	Ratio	Lower	Upper
114	100		
63	22.2	0.0	48.0
88	16.5	0.0	34.8



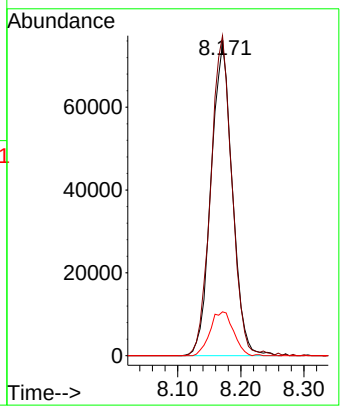


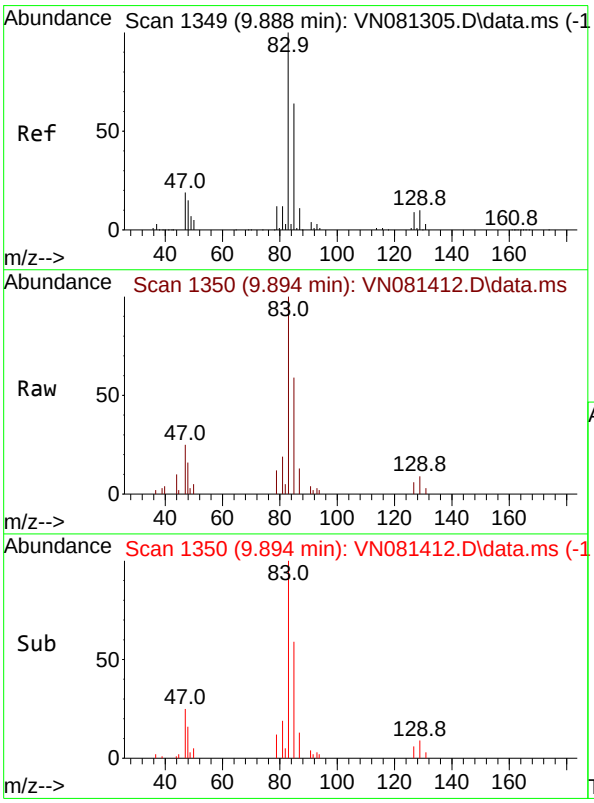
#35
Dibromofluoromethane
Concen: 52.445 ug/l
RT: 8.171 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Tgt Ion:113 Resp: 177254

Ion	Ratio	Lower	Upper
113	100		
111	101.9	82.2	123.4
192	15.3	12.5	18.7

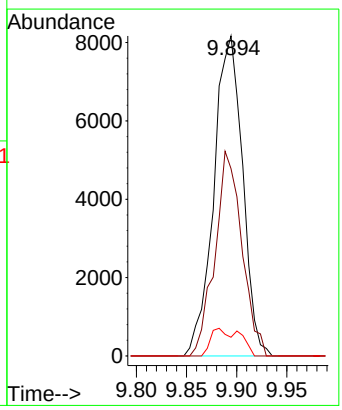


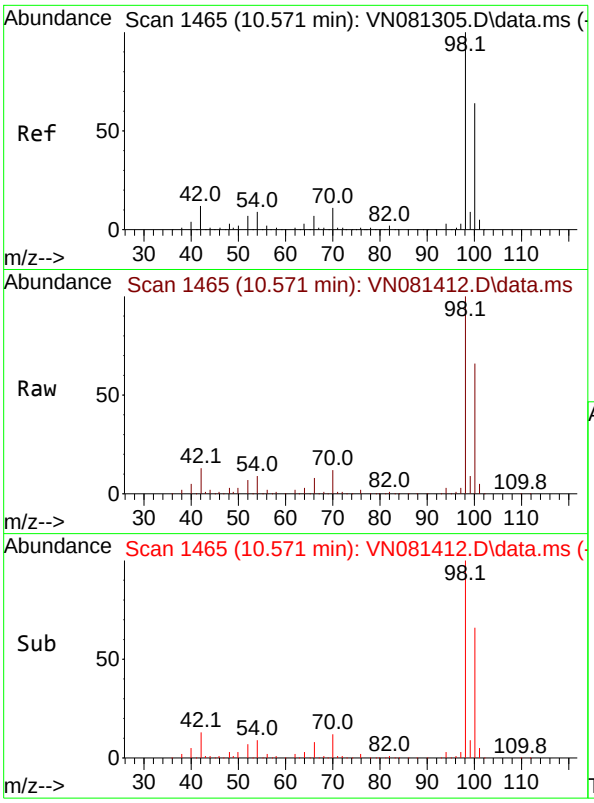


#47
Bromodichloromethane
Concen: 2.907 ug/l
RT: 9.894 min Scan# 1350
Delta R.T. 0.006 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Tgt Ion: 83 Resp: 16265

Ion	Ratio	Lower	Upper
83	100		
85	58.6	52.3	78.5
127	5.9	4.6	7.0



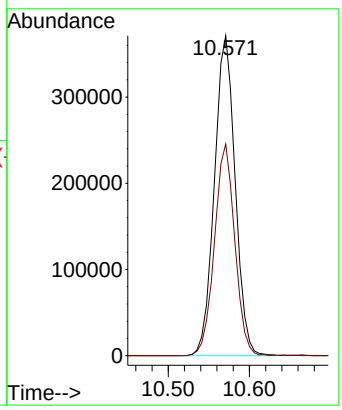


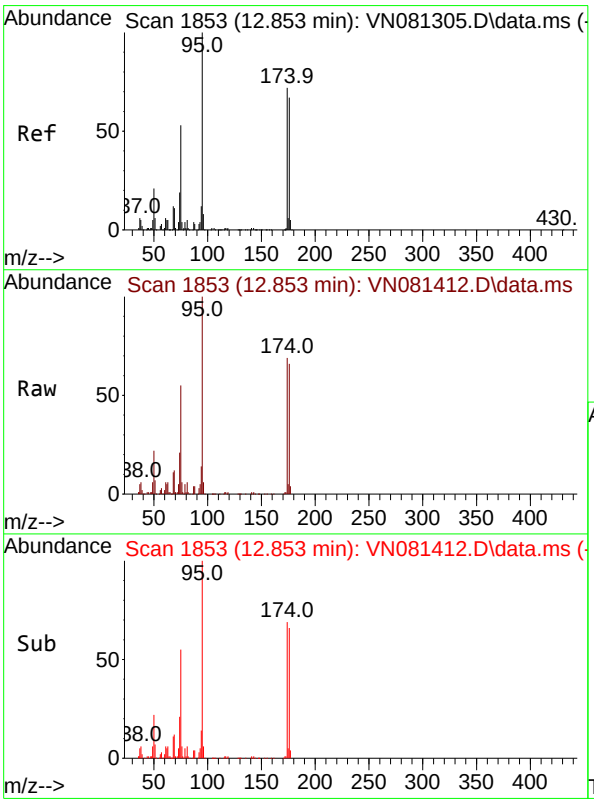
#50
Toluene-d8
Concen: 52.230 ug/l
RT: 10.571 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Tgt Ion: 98 Resp: 659893

Ion	Ratio	Lower	Upper
98	100		
100	64.9	51.4	77.0

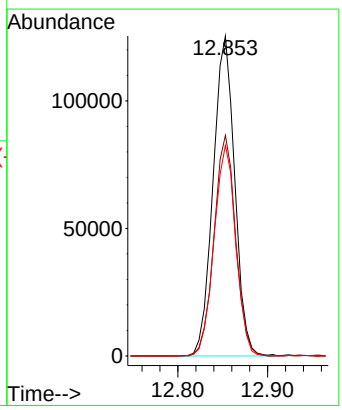


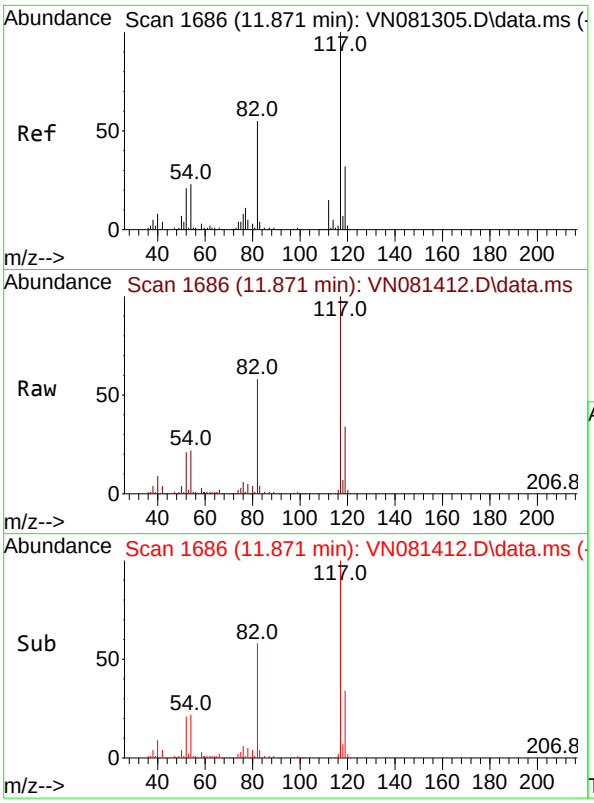


#62
4-Bromofluorobenzene
Concen: 46.912 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. 0.000 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Tgt Ion: 95 Resp: 209487

Ion	Ratio	Lower	Upper
95	100		
174	69.0	0.0	120.4
176	65.9	0.0	121.0



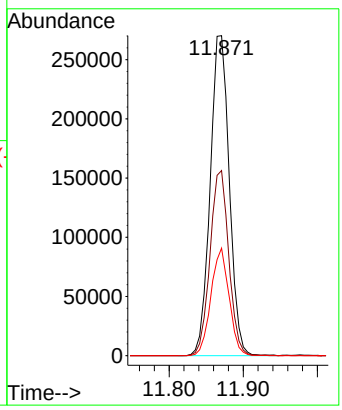


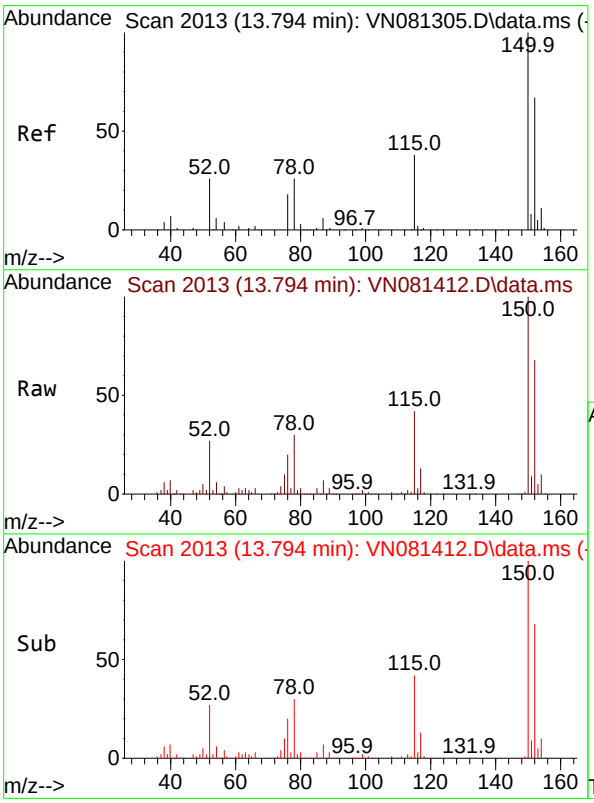
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Tgt Ion:117 Resp: 483758

Ion	Ratio	Lower	Upper
117	100		
82	57.9	52.7	79.1
119	33.6	25.3	37.9

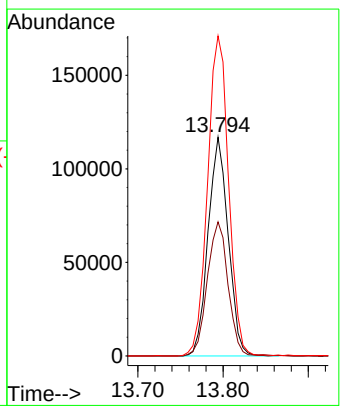




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. 0.000 min
Lab File: VN081412.D
Acq: 14 Mar 2024 16:05

Tgt Ion:152 Resp: 192317

Ion	Ratio	Lower	Upper
152	100		
115	63.0	32.3	96.8
150	152.6	0.0	339.8



Sample Results: **VN081412.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081412.D
Acq On : 14 Mar 2024 16:05
Operator : JC\MD
Sample : P1747-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Title : SW846 8260

Signal : TIC: VN081412.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.971	1013	1023	1032	rBV	232598	579733	32.30%	5.862%
2	8.171	1046	1057	1061	rBV2	247032	586211	32.66%	5.927%
3	8.230	1061	1067	1083	rVB	446838	1015740	56.59%	10.270%
4	8.583	1116	1127	1140	rBV	289036	646259	36.00%	6.534%
5	9.106	1205	1216	1228	rBV	646841	1353166	75.39%	13.682%
6	9.894	1343	1350	1356	rBV	24106	47764	2.66%	0.483%
7	10.571	1455	1465	1478	rBV	1003675	1794922	100.00%	18.149%
8	11.871	1677	1686	1699	rBV	860654	1537327	85.65%	15.544%
9	12.853	1844	1853	1863	rBV	627143	1052878	58.66%	10.646%
10	13.794	2004	2013	2021	rBV	751663	1276188	71.10%	12.904%

Sum of corrected areas: 9890188

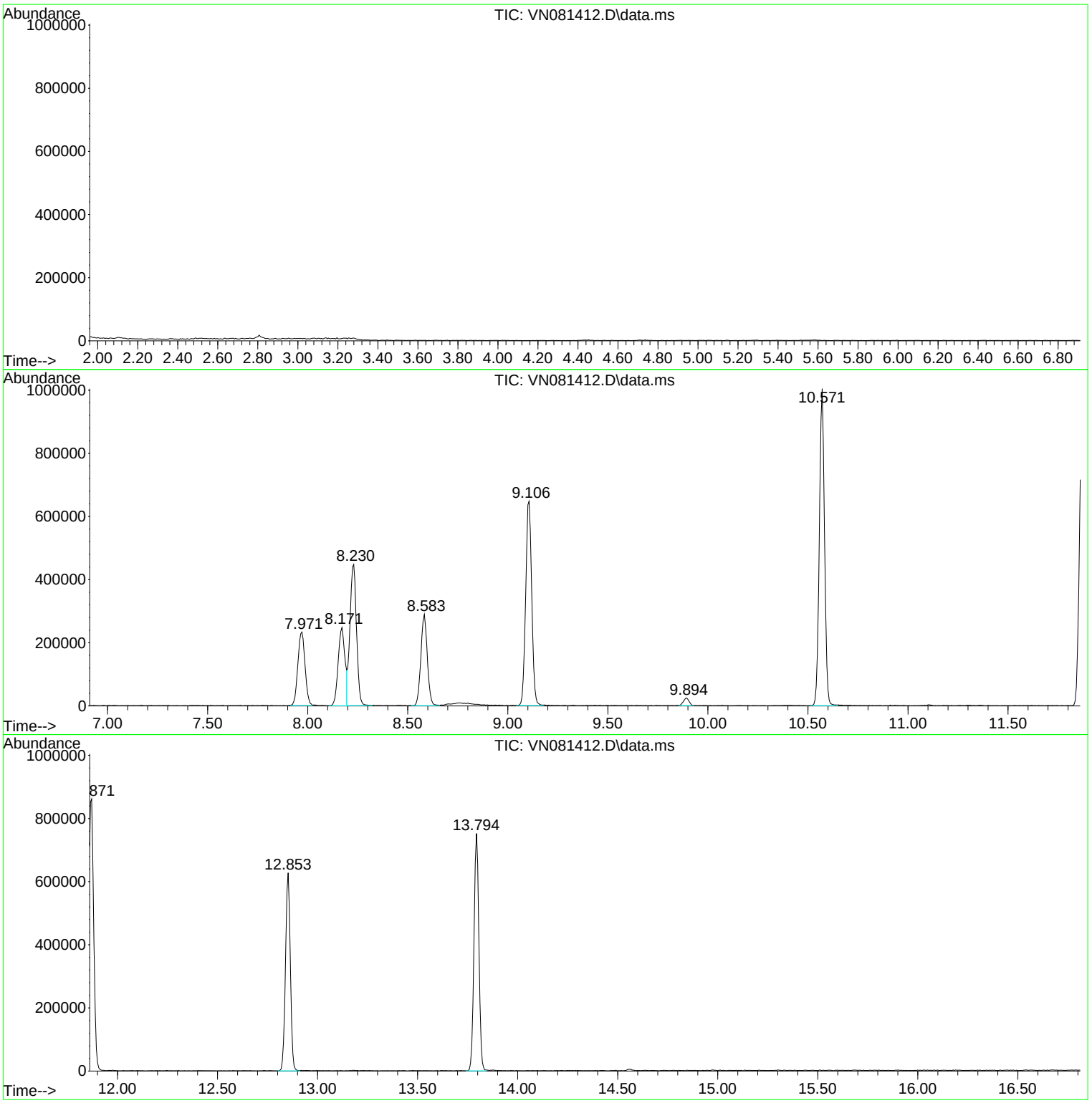
Sample Results: **VN081412.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081412.D
Acq On : 14 Mar 2024 16:05
Operator : JC\MD
Sample : P1747-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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



Library Search Compound Report

Sample Results: **VN081412.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081412.D
Acq On : 14 Mar 2024 16:05
Operator : JC\MD
Sample : P1747-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected
****

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081412.D
Acq On : 14 Mar 2024 16:05
Operator : JC\MD
Sample : P1747-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

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

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01-DUP	SDG No.:	P1747
Lab Sample ID:	P1747-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081413.D	1		03/14/24 16:29	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.34	U	0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	2.30	J	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.60	U	0.60	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
74-97-5	Bromochloromethane	0.18	U	0.18	1.00	ug/L
67-66-3	Chloroform	31.4		0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	2.90		0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.18	U	0.18	1.00	ug/L

Raw Data: **VN081413.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01-DUP	SDG No.:	P1747
Lab Sample ID:	P1747-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081413.D	1		03/14/24 16:29	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.3		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	52.0		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	52.3		86 - 113	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.7		64 - 133	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	297000	8.23			
540-36-3	1,4-Difluorobenzene	548000	9.106			
3114-55-4	Chlorobenzene-d5	468000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	179000	13.794			

Raw Data: **VN081413.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01-DUP	SDG No.:	P1747
Lab Sample ID:	P1747-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081413.D	1		03/14/24 16:29	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081413.D
Acq On : 14 Mar 2024 16:29
Operator : JC\MD
Sample : P1747-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Quant Time: Mar 15 01:14:44 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

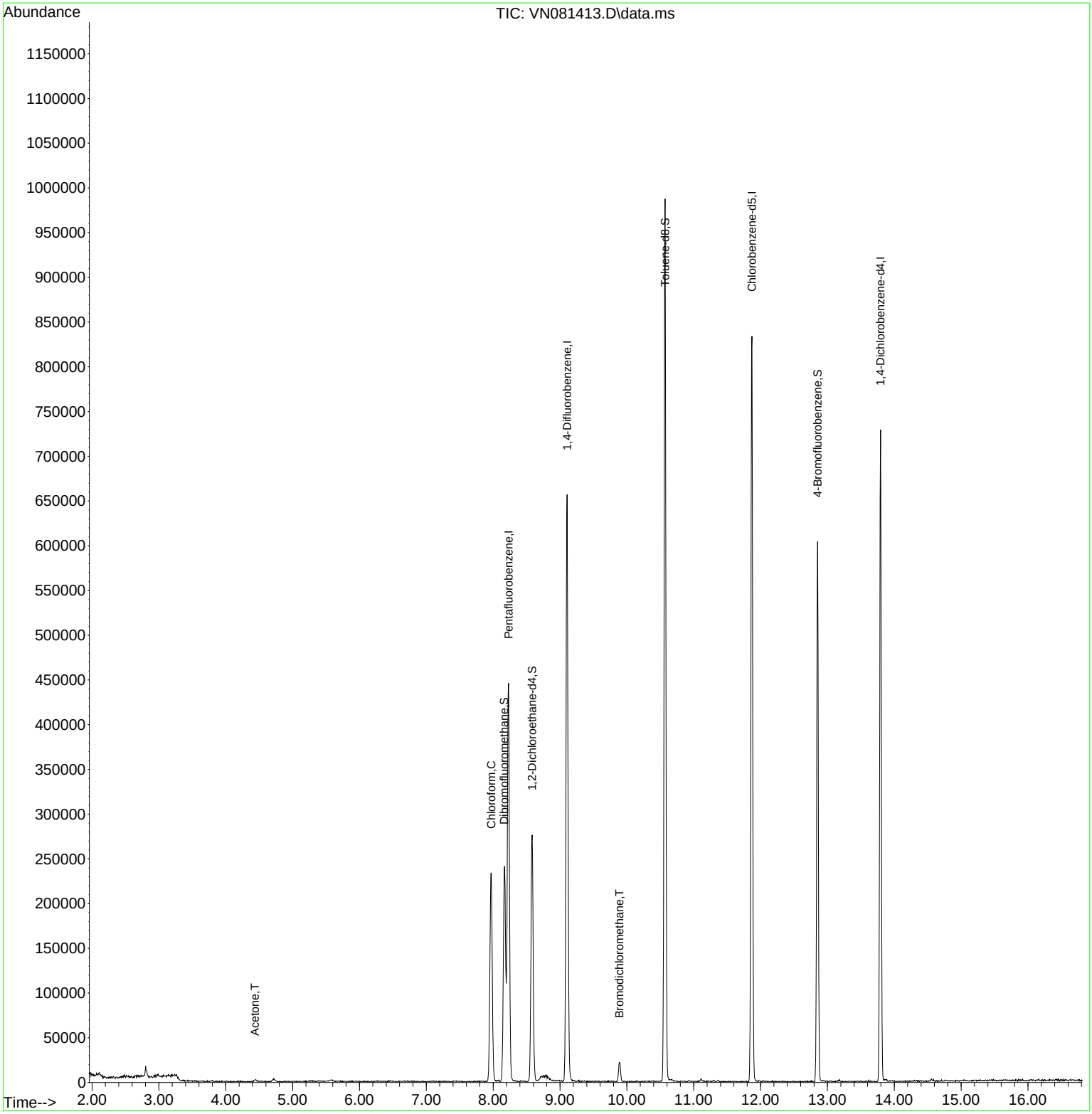
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	297408	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	548071	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	467622	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	179160	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	229027	53.260	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 106.520%			
35) Dibromofluoromethane	8.165	113	174546	51.981	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.960%			
50) Toluene-d8	10.571	98	656223	52.279	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 104.560%			
62) 4-Bromofluorobenzene	12.853	95	198412	44.722	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 89.440%			
Target Compounds						Qvalue
16) Acetone	4.436	43	3514	2.306	ug/l	93
30) Chloroform	7.971	83	227708	31.376	ug/l	100
47) Bromodichloromethane	9.888	83	15864	2.854	ug/l #	80

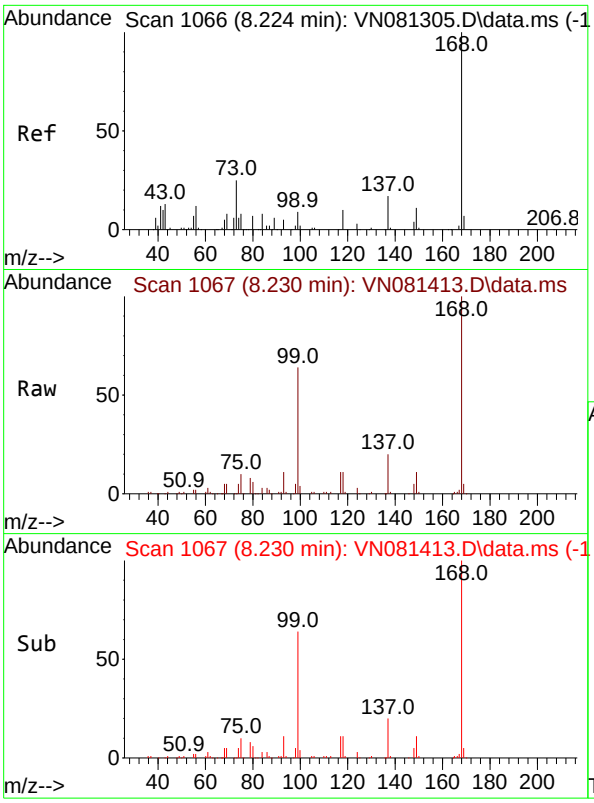
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081413.D
Acq On : 14 Mar 2024 16:29
Operator : JC\MD
Sample : P1747-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Quant Time: Mar 15 01:14:44 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration



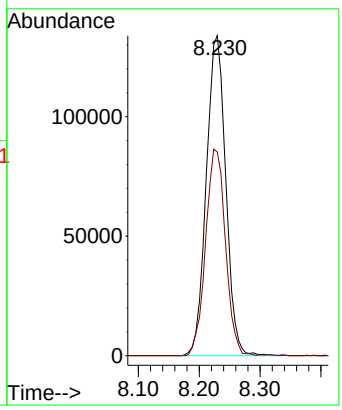


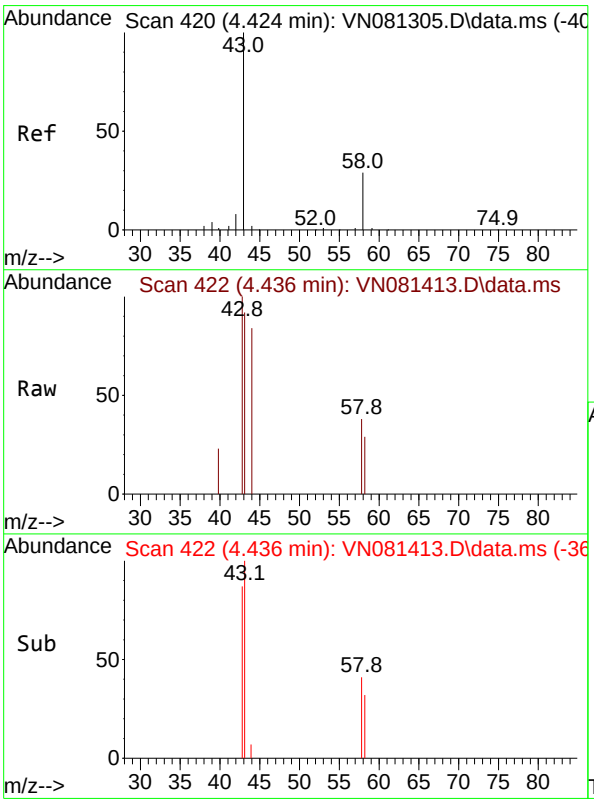
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Tgt Ion:168 Resp: 297408

Ion	Ratio	Lower	Upper
168	100		
99	63.7	59.9	89.9

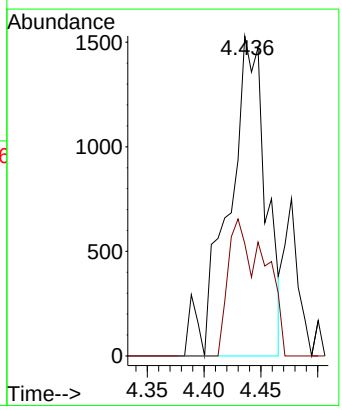


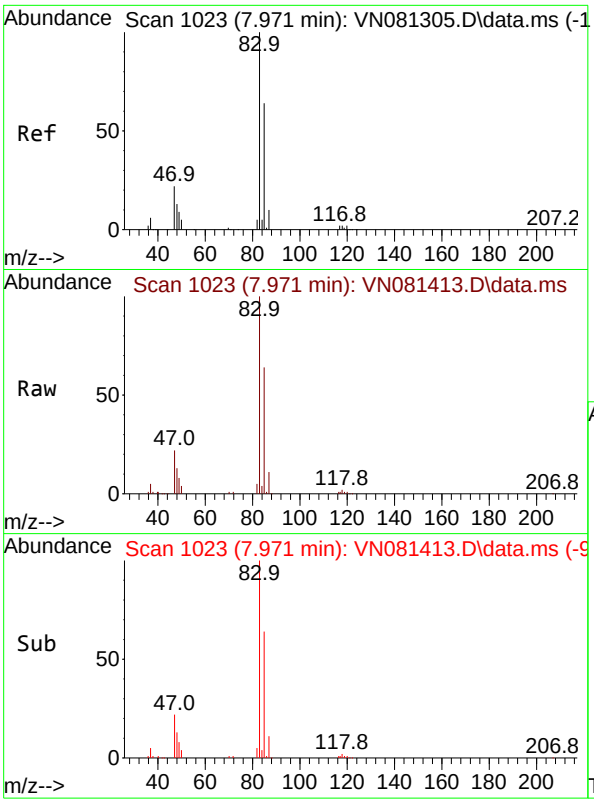


#16
Acetone
Concen: 2.306 ug/l
RT: 4.436 min Scan# 422
Delta R.T. 0.012 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Tgt Ion: 43 Resp: 3514

Ion	Ratio	Lower	Upper
43	100		
58	35.1	24.8	37.2



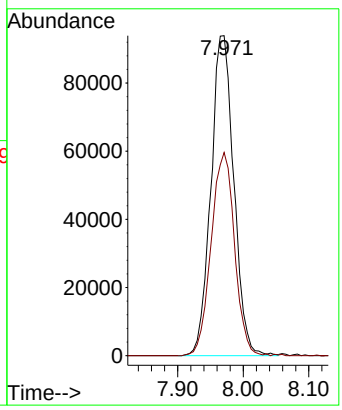


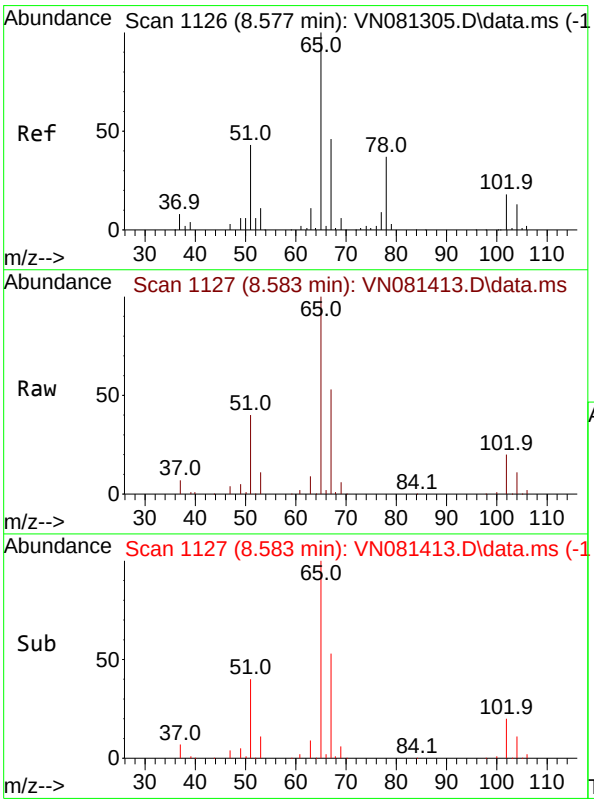
#30
Chloroform
Concen: 31.376 ug/l
RT: 7.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Tgt Ion: 83 Resp: 227708

Ion	Ratio	Lower	Upper
83	100		
85	63.5	51.0	76.6

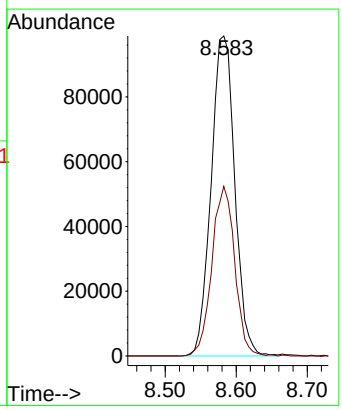


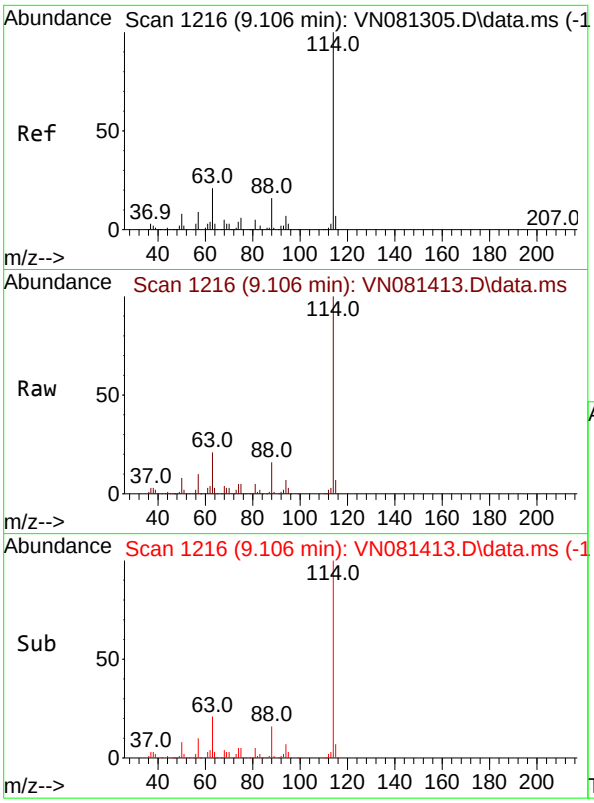


#33
1,2-Dichloroethane-d4
Concen: 53.260 ug/l
RT: 8.583 min Scan# 1127
Delta R.T. 0.006 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Tgt Ion: 65 Resp: 229027

Ion	Ratio	Lower	Upper
65	100		
67	51.0	0.0	102.4



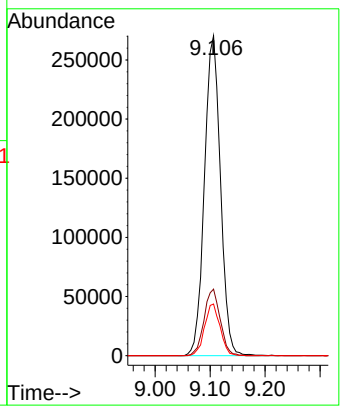


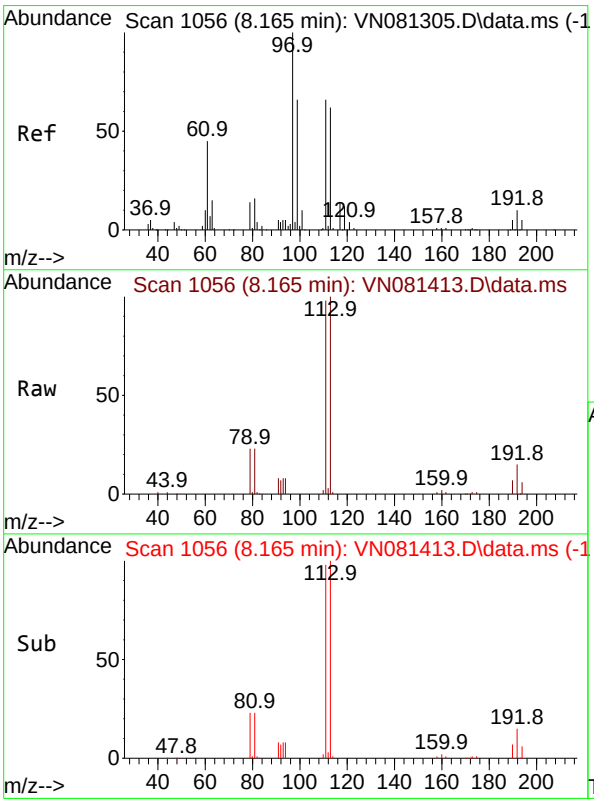
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Tgt Ion:114 Resp: 548071

Ion	Ratio	Lower	Upper
114	100		
63	20.8	0.0	48.0
88	16.1	0.0	34.8

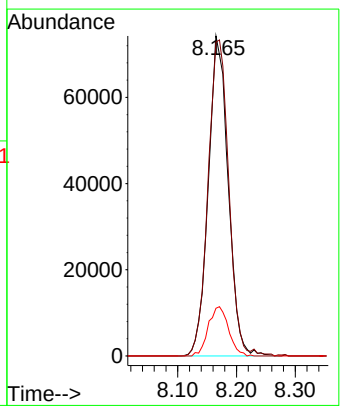


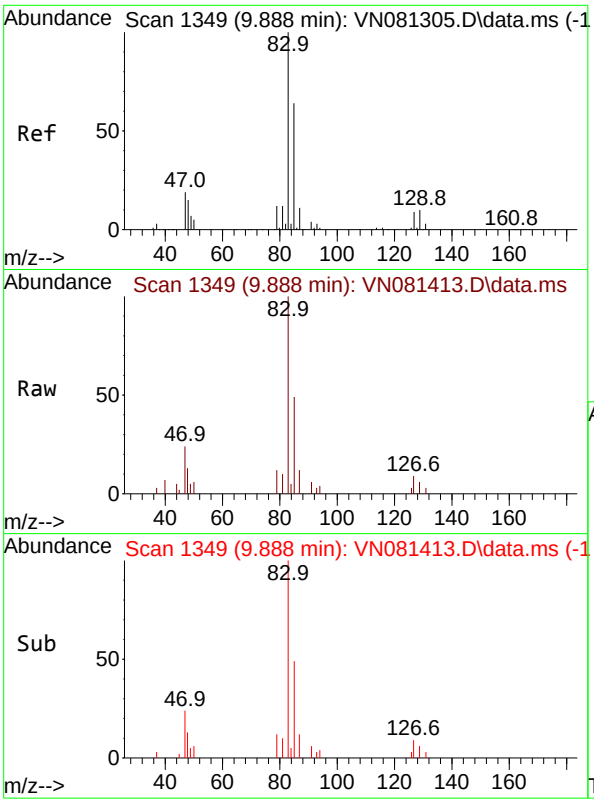


#35
Dibromofluoromethane
Concen: 51.981 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Tgt Ion:113 Resp: 174546

Ion	Ratio	Lower	Upper
113	100		
111	102.8	82.2	123.4
192	15.7	12.5	18.7



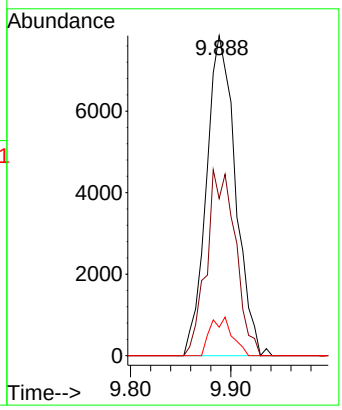


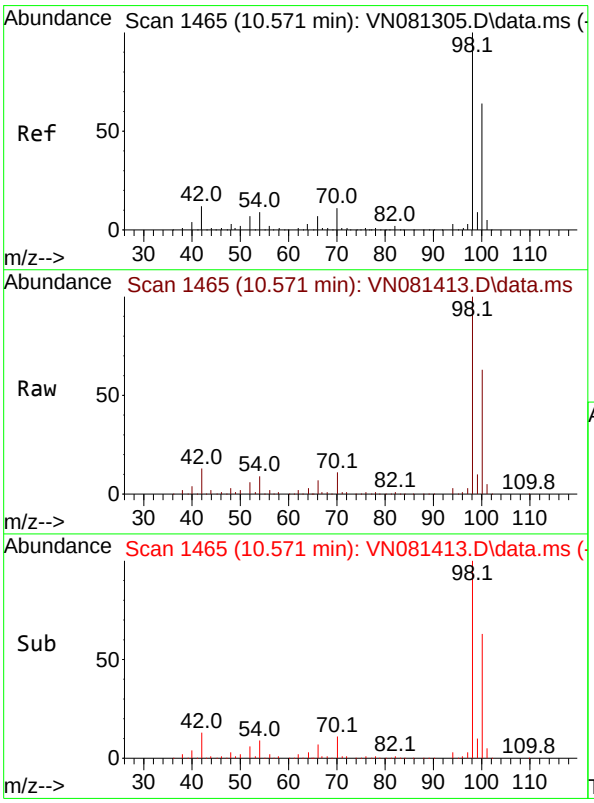
#47
Bromodichloromethane
Concen: 2.854 ug/l
RT: 9.888 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Tgt Ion: 83 Resp: 15864

Ion	Ratio	Lower	Upper
83	100		
85	49.1	52.3	78.5#
127	8.9	4.6	7.0#

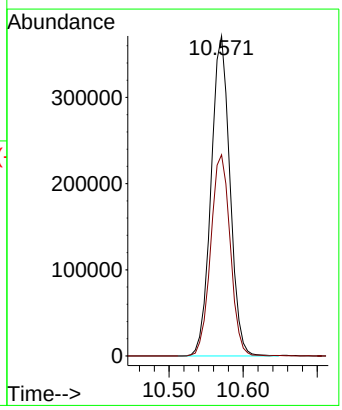


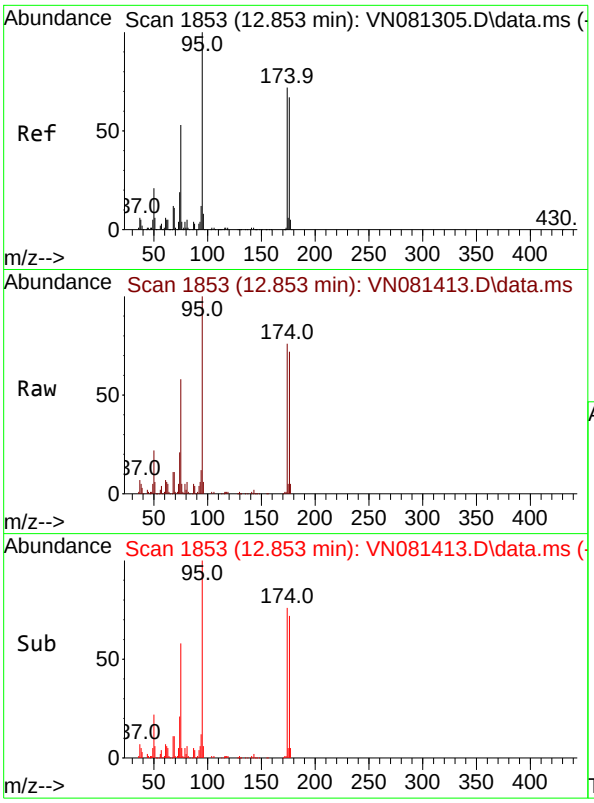


#50
Toluene-d8
Concen: 52.279 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. 0.000 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Tgt Ion: 98 Resp: 656223

Ion	Ratio	Lower	Upper
98	100		
100	64.9	51.4	77.0



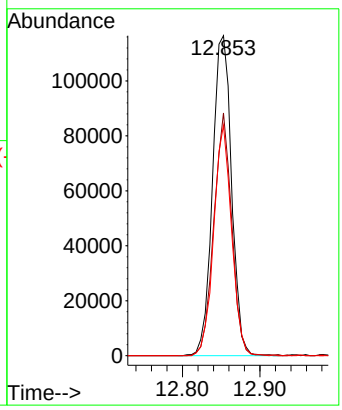


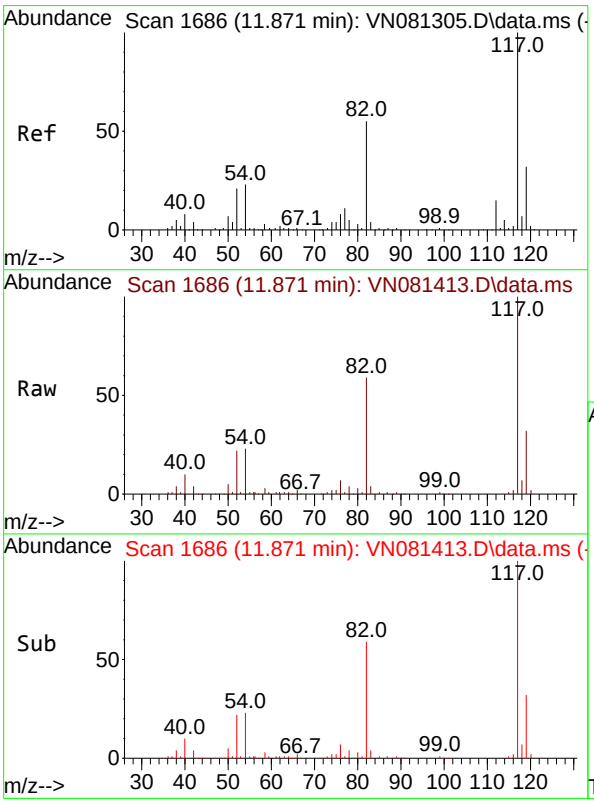
#62
4-Bromofluorobenzene
Concen: 44.722 ug/l
RT: 12.853 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Tgt Ion: 95 Resp: 198412

Ion	Ratio	Lower	Upper
95	100		
174	71.1	0.0	120.4
176	67.9	0.0	121.0

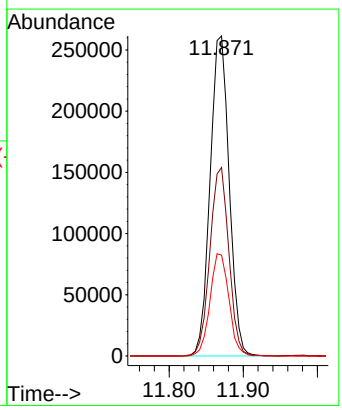


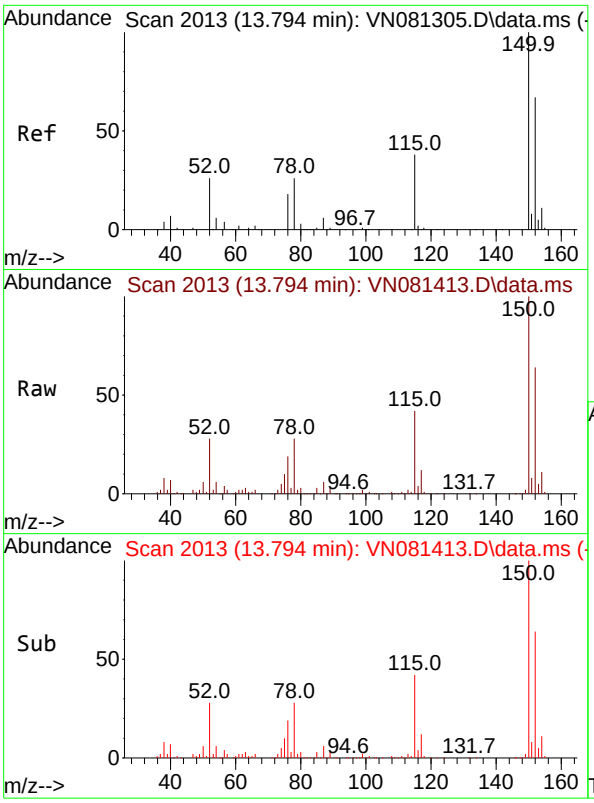


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1686
Delta R.T. 0.000 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Tgt Ion:117 Resp: 467622

Ion	Ratio	Lower	Upper
117	100		
82	58.9	52.7	79.1
119	31.5	25.3	37.9



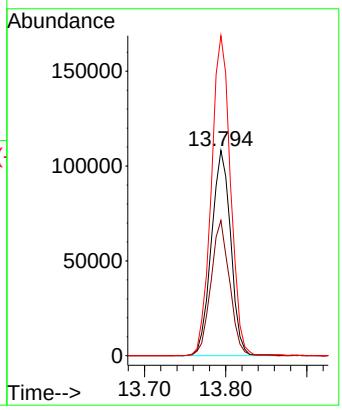


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN081413.D
Acq: 14 Mar 2024 16:29

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Tgt Ion:152 Resp: 179160

Ion	Ratio	Lower	Upper
152	100		
115	63.5	32.3	96.8
150	154.7	0.0	339.8



Sample Results: **VN081413.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081413.D
Acq On : 14 Mar 2024 16:29
Operator : JC\MD
Sample : P1747-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Title : SW846 8260

Signal : TIC: VN081413.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.971	1010	1023	1037	rBV2	233189	580104	32.47%	5.997%
2	8.171	1046	1057	1061	rBV	241168	581777	32.56%	6.014%
3	8.230	1061	1067	1081	rVB	444742	997308	55.82%	10.310%
4	8.583	1115	1127	1137	rBV	275727	636228	35.61%	6.577%
5	9.106	1206	1216	1228	rBV	655853	1331942	74.55%	13.769%
6	9.888	1343	1349	1356	rBV3	21280	44539	2.49%	0.460%
7	10.571	1456	1465	1476	rBV	986353	1786625	100.00%	18.469%
8	11.871	1677	1686	1699	rBV	833761	1499004	83.90%	15.496%
9	12.853	1845	1853	1863	rBV	603873	1015063	56.81%	10.493%
10	13.794	2005	2013	2021	rBV	728592	1200993	67.22%	12.415%

Sum of corrected areas: 9673583

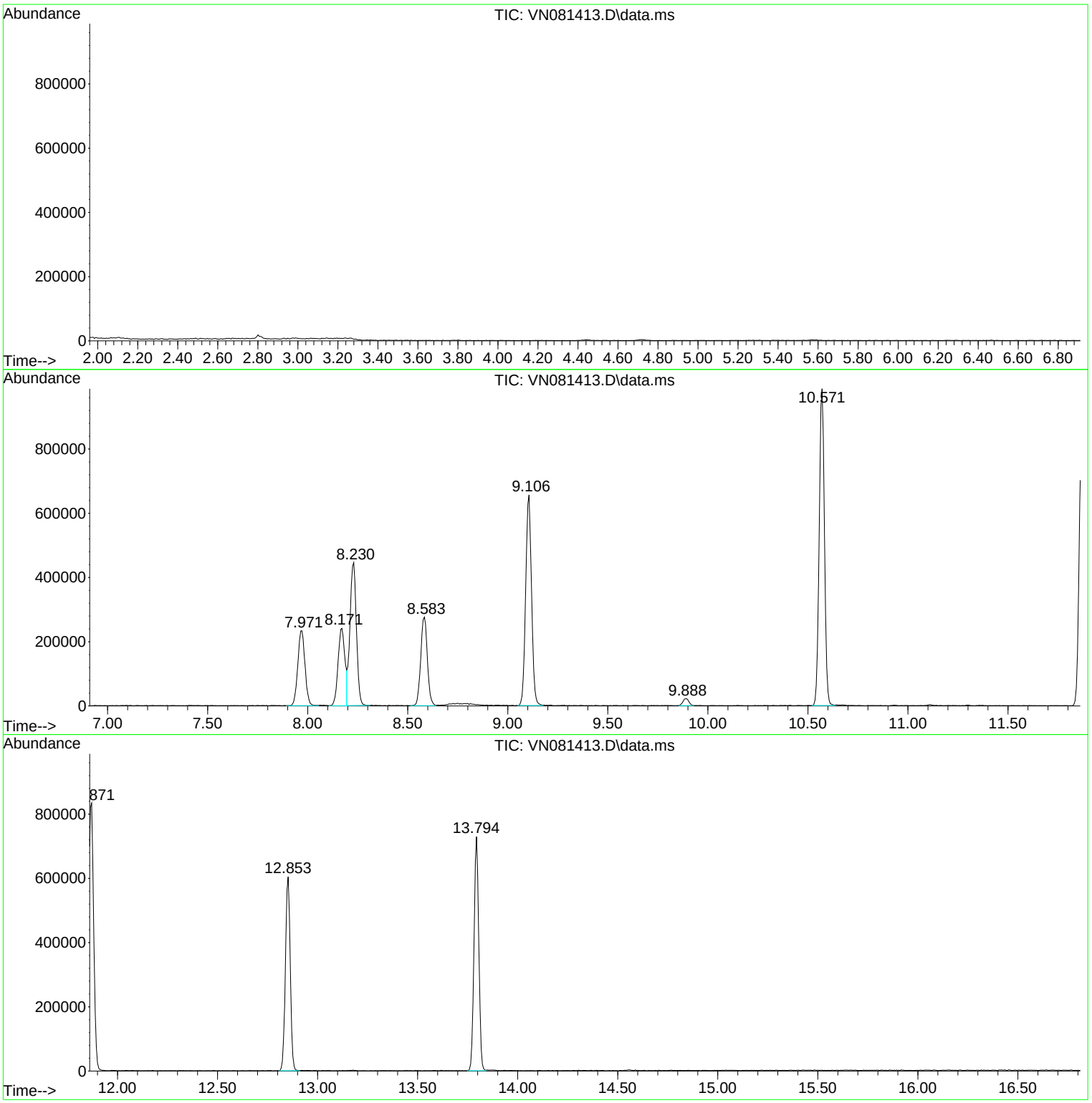
Sample Results: **VN081413.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081413.D
Acq On : 14 Mar 2024 16:29
Operator : JC\MD
Sample : P1747-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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



Library Search Compound Report

Sample Results: **VN081413.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081413.D
Acq On : 14 Mar 2024 16:29
Operator : JC\MD
Sample : P1747-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected
****

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081413.D
Acq On : 14 Mar 2024 16:29
Operator : JC\MD
Sample : P1747-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-01-DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

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

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-02	SDG No.:	P1747
Lab Sample ID:	P1747-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081414.D	1		03/14/24 16:53	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.34	U	0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	1.40	U	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.60	U	0.60	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
74-97-5	Bromochloromethane	0.18	U	0.18	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.18	U	0.18	1.00	ug/L

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-02	SDG No.:	P1747
Lab Sample ID:	P1747-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081414.D	1		03/14/24 16:53	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.6		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	51.7		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.3		64 - 133	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	288000	8.23			
540-36-3	1,4-Difluorobenzene	536000	9.106			
3114-55-4	Chlorobenzene-d5	460000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	180000	13.794			

Raw Data: **VN081414.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-02	SDG No.:	P1747
Lab Sample ID:	P1747-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081414.D	1		03/14/24 16:53	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081414.D
Acq On : 14 Mar 2024 16:53
Operator : JC\MD
Sample : P1747-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Quant Time: Mar 15 01:15:07 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	287608	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	536366	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	459785	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	179683	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	222899	53.601	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 107.200%			
35) Dibromofluoromethane	8.171	113	171653	52.236	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 104.480%			
50) Toluene-d8	10.571	98	635600	51.741	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 103.480%			
62) 4-Bromofluorobenzene	12.853	95	200992	46.293	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 92.580%			
Target Compounds						Qvalue

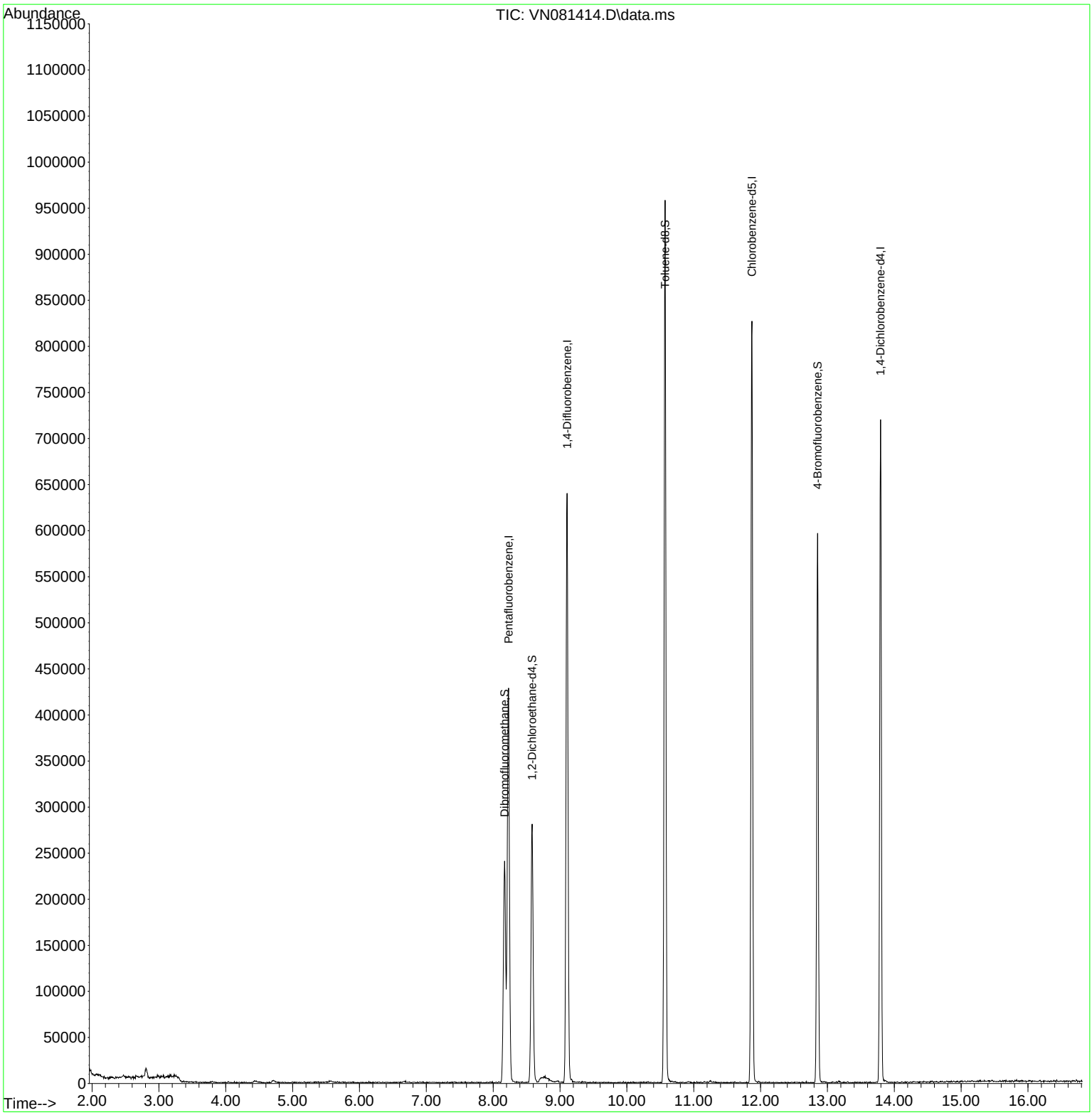
(#) = qualifier out of range (m) = manual integration (+) = signals summed

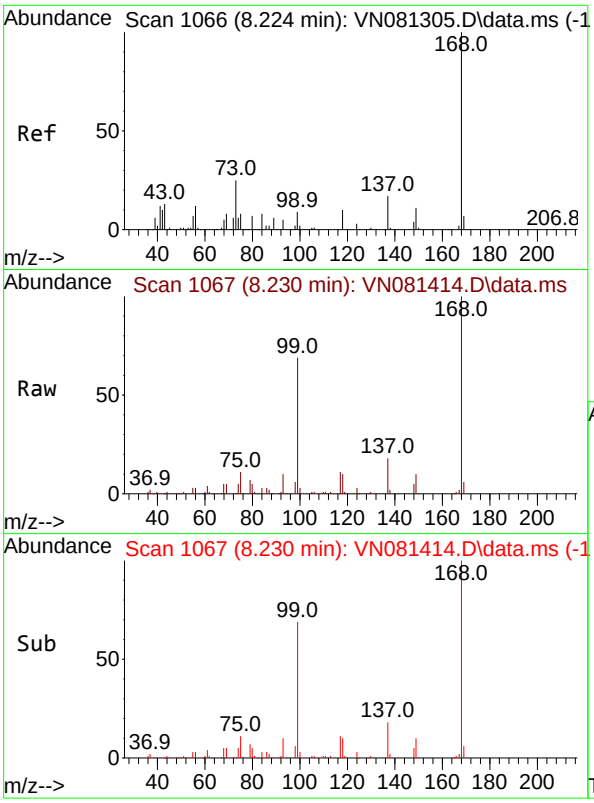
Sample Results: **VN081414.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081414.D
Acq On : 14 Mar 2024 16:53
Operator : JC\MD
Sample : P1747-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Quant Time: Mar 15 01:15:07 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration



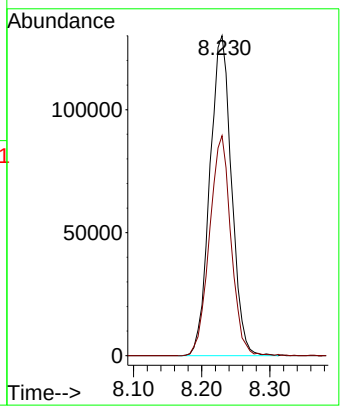


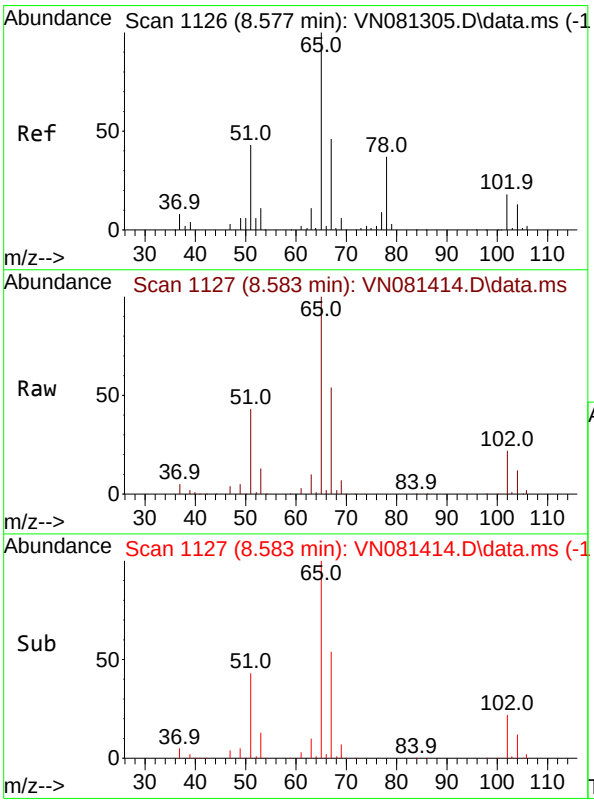
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN081414.D
Acq: 14 Mar 2024 16:53

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Tgt Ion:168 Resp: 287608

Ion	Ratio	Lower	Upper
168	100		
99	68.8	59.9	89.9

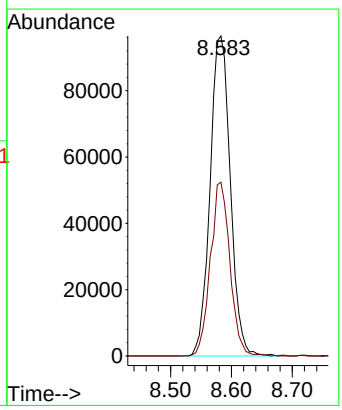


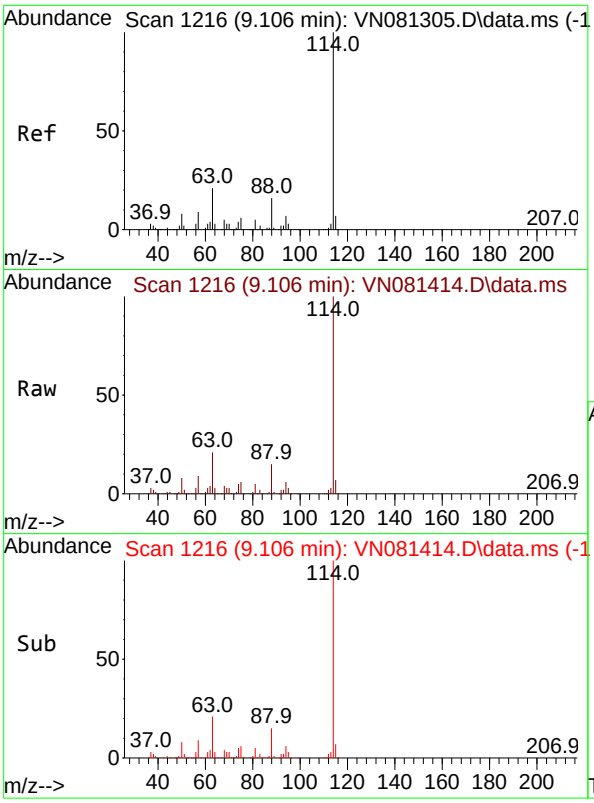


#33
1,2-Dichloroethane-d4
Concen: 53.601 ug/l
RT: 8.583 min Scan# 1127
Delta R.T. 0.006 min
Lab File: VN081414.D
Acq: 14 Mar 2024 16:53

Tgt Ion: 65 Resp: 222899

Ion	Ratio	Lower	Upper
65	100		
67	52.3	0.0	102.4



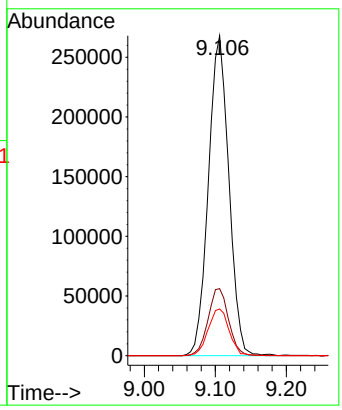


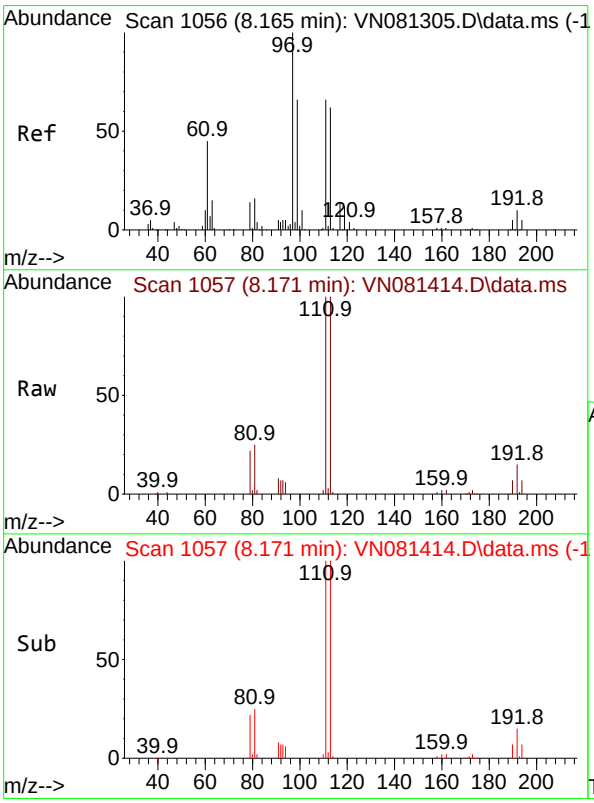
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN081414.D
Acq: 14 Mar 2024 16:53

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Tgt Ion:114 Resp: 536366

Ion	Ratio	Lower	Upper
114	100		
63	20.9	0.0	48.0
88	14.6	0.0	34.8

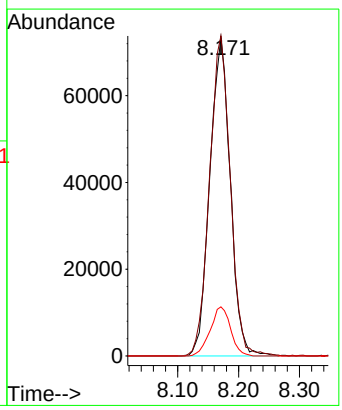


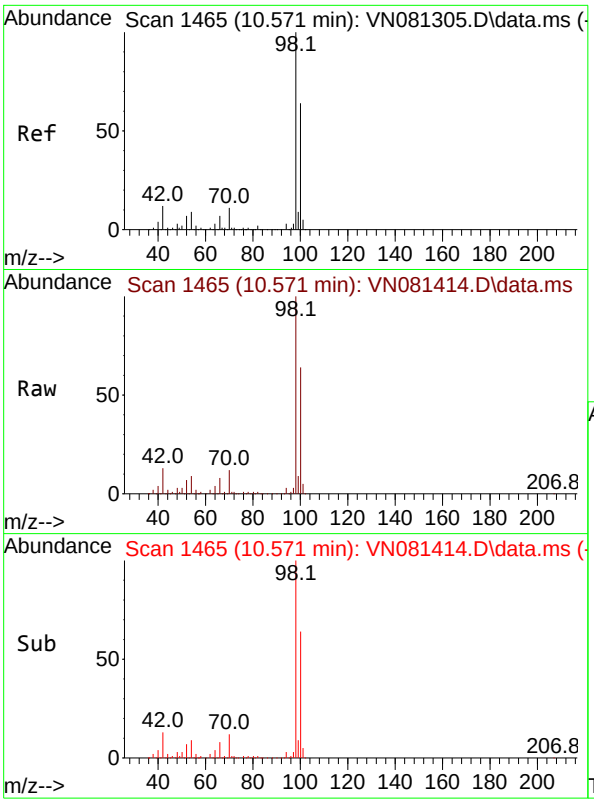


#35
Dibromofluoromethane
Concen: 52.236 ug/l
RT: 8.171 min Scan# 1057
Delta R.T. 0.006 min
Lab File: VN081414.D
Acq: 14 Mar 2024 16:53

Tgt Ion:113 Resp: 171653

Ion	Ratio	Lower	Upper
113	100		
111	101.9	82.2	123.4
192	15.3	12.5	18.7



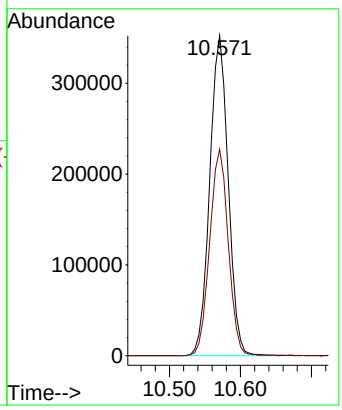


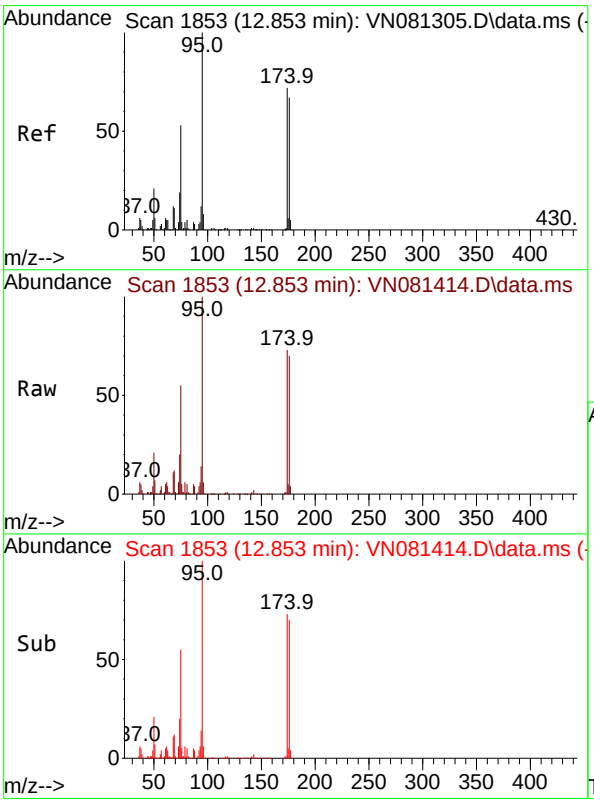
#50
Toluene-d8
Concen: 51.741 ug/l
RT: 10.571 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN081414.D
Acq: 14 Mar 2024 16:53

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Tgt Ion: 98 Resp: 635600

Ion	Ratio	Lower	Upper
98	100		
100	64.8	51.4	77.0

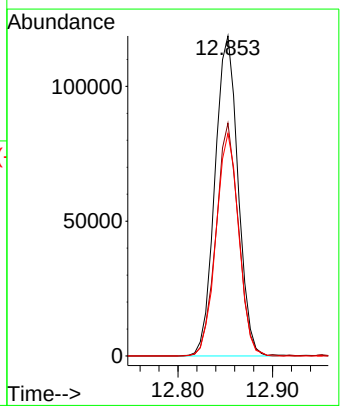


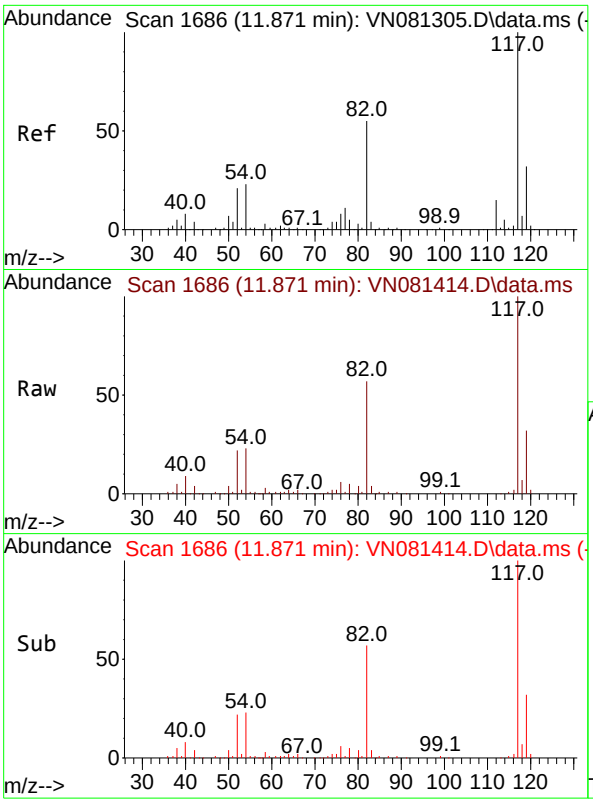


#62
4-Bromofluorobenzene
Concen: 46.293 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. 0.000 min
Lab File: VN081414.D
Acq: 14 Mar 2024 16:53

Tgt Ion: 95 Resp: 200992

Ion	Ratio	Lower	Upper
95	100		
174	70.8	0.0	120.4
176	68.7	0.0	121.0



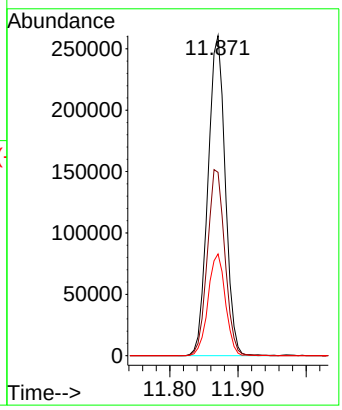


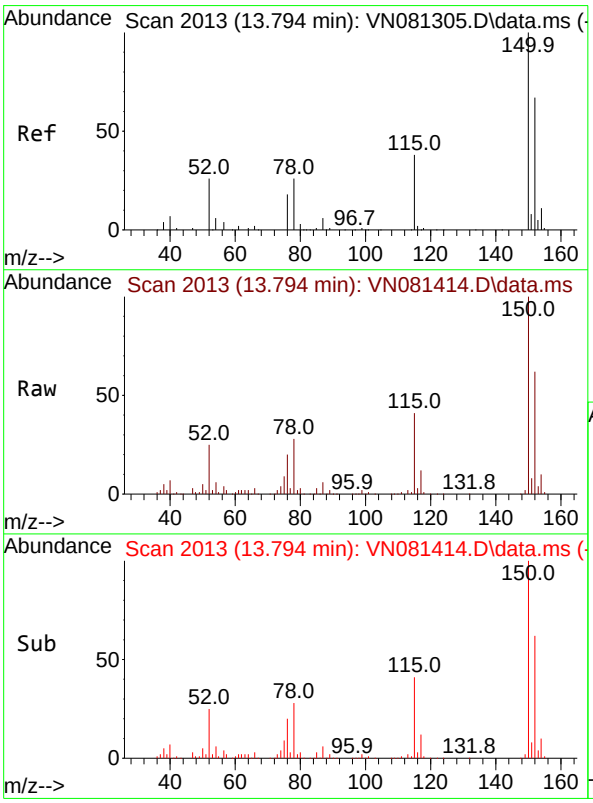
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN081414.D
Acq: 14 Mar 2024 16:53

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Tgt Ion:117 Resp: 459785

Ion	Ratio	Lower	Upper
117	100		
82	57.3	52.7	79.1
119	31.8	25.3	37.9

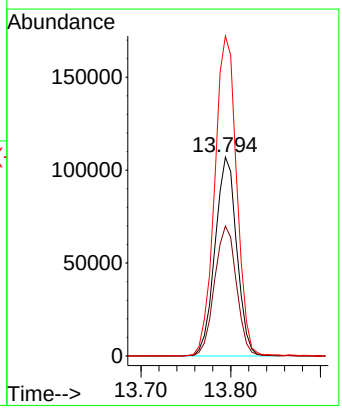




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. 0.000 min
Lab File: VN081414.D
Acq: 14 Mar 2024 16:53

Tgt Ion:152 Resp: 179683

Ion	Ratio	Lower	Upper
152	100		
115	66.0	32.3	96.8
150	162.9	0.0	339.8



Sample Results: **VN081414.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081414.D
Acq On : 14 Mar 2024 16:53
Operator : JC\MD
Sample : P1747-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Title : SW846 8260

Signal : TIC: VN081414.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.807	141	145	153	rVB4	11130	23636	1.36%	0.264%
2	8.171	1047	1057	1061	rBV	240488	565578	32.64%	6.312%
3	8.230	1061	1067	1078	rVB	427191	966704	55.80%	10.789%
4	8.583	1118	1127	1139	rBV	280471	624784	36.06%	6.973%
5	9.106	1207	1216	1226	rBV	639653	1306129	75.39%	14.578%
6	10.571	1457	1465	1476	rBV	957641	1732555	100.00%	19.337%
7	11.871	1677	1686	1701	rBV	826500	1485173	85.72%	16.576%
8	12.853	1844	1853	1862	rBV	596551	1023557	59.08%	11.424%
9	13.794	2005	2013	2023	rBV	719380	1231768	71.10%	13.748%

Sum of corrected areas: 8959884

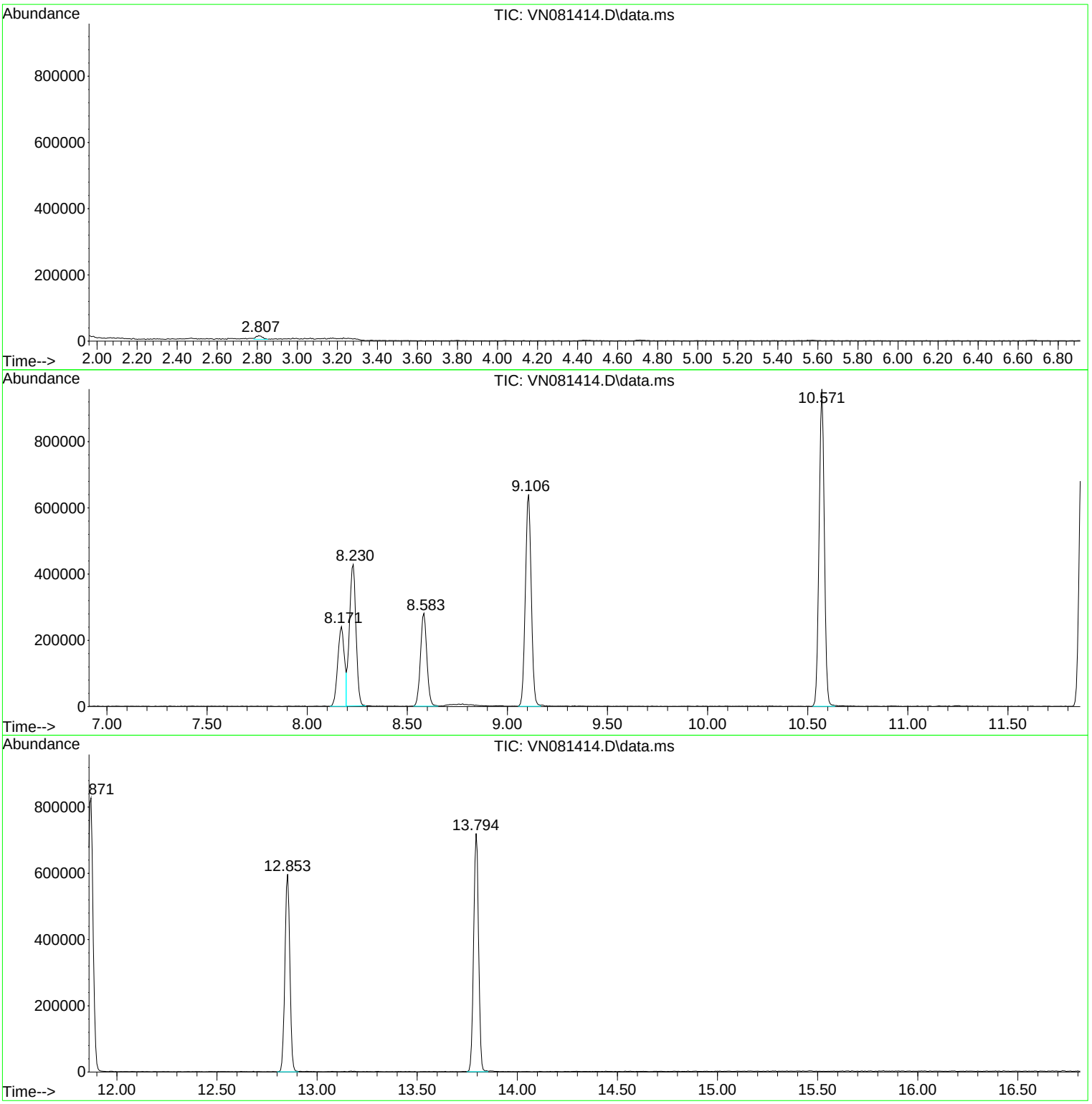
Sample Results: **VN081414.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081414.D
Acq On : 14 Mar 2024 16:53
Operator : JC\MD
Sample : P1747-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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



Library Search Compound Report

Sample Results: **VN081414.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081414.D
Acq On : 14 Mar 2024 16:53
Operator : JC\MD
Sample : P1747-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected
****

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081414.D
Acq On : 14 Mar 2024 16:53
Operator : JC\MD
Sample : P1747-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-02

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

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

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	TWP-04	SDG No.:	P1747
Lab Sample ID:	P1747-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081415.D	1		03/14/24 17:17	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.34	U	0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	2.60	J	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.60	U	0.60	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
74-97-5	Bromochloromethane	0.18	U	0.18	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.18	U	0.18	1.00	ug/L

Raw Data: **VN081415.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	TWP-04	SDG No.:	P1747
Lab Sample ID:	P1747-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081415.D	1		03/14/24 17:17	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.4		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	52.9		75 - 124	106%	SPK: 50
2037-26-5	Toluene-d8	51.8		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.8		64 - 133	94%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	294000	8.23			
540-36-3	1,4-Difluorobenzene	538000	9.106			
3114-55-4	Chlorobenzene-d5	468000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	183000	13.794			

Raw Data: **VN081415.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	TWP-04	SDG No.:	P1747
Lab Sample ID:	P1747-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081415.D	1		03/14/24 17:17	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081415.D
Acq On : 14 Mar 2024 17:17
Operator : JC\MD
Sample : P1747-05
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Quant Time: Mar 15 01:15:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

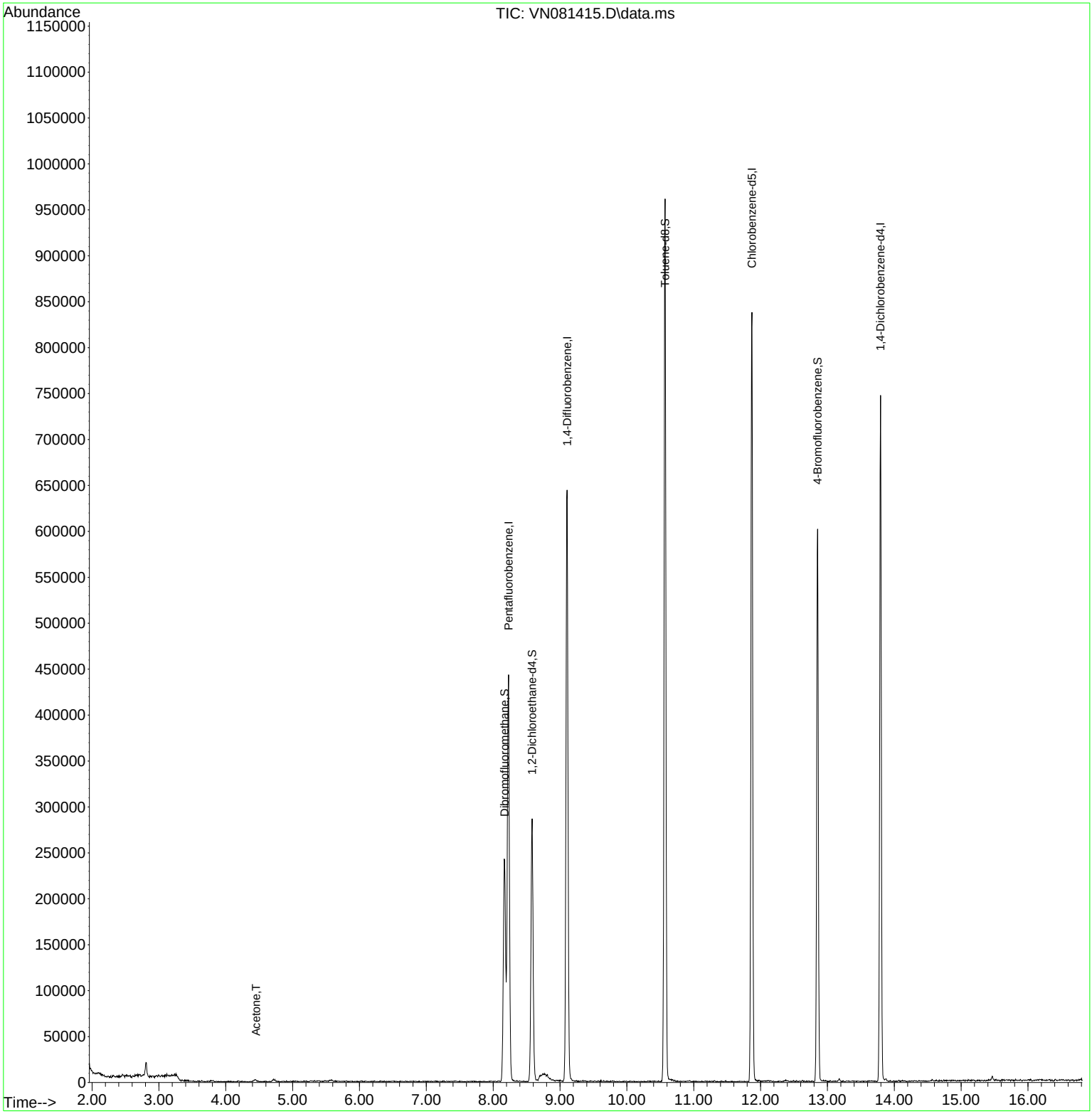
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	293736	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	538371	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	468090	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	182546	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	226732	53.385	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 106.780%			
35) Dibromofluoromethane	8.171	113	174629	52.943	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 105.880%			
50) Toluene-d8	10.571	98	639307	51.849	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 103.700%			
62) 4-Bromofluorobenzene	12.853	95	204011	46.813	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 93.620%			
Target Compounds						Qvalue
16) Acetone	4.453	43	3900	2.592	ug/l #	79

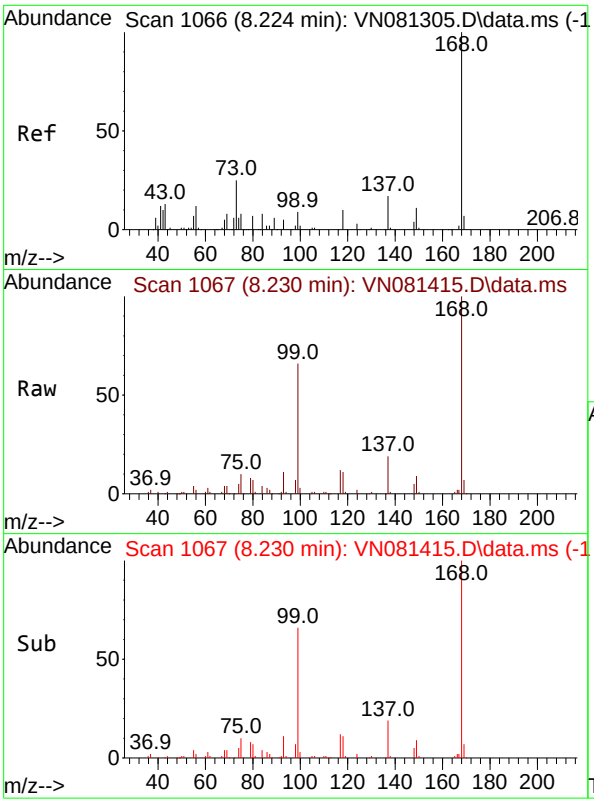
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081415.D
Acq On : 14 Mar 2024 17:17
Operator : JC\MD
Sample : P1747-05
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Quant Time: Mar 15 01:15:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration



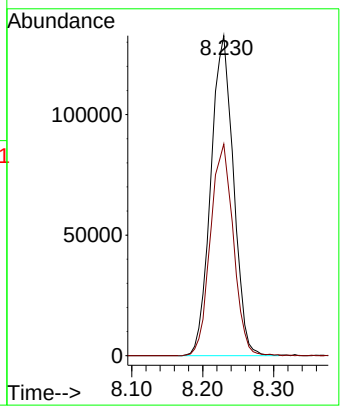


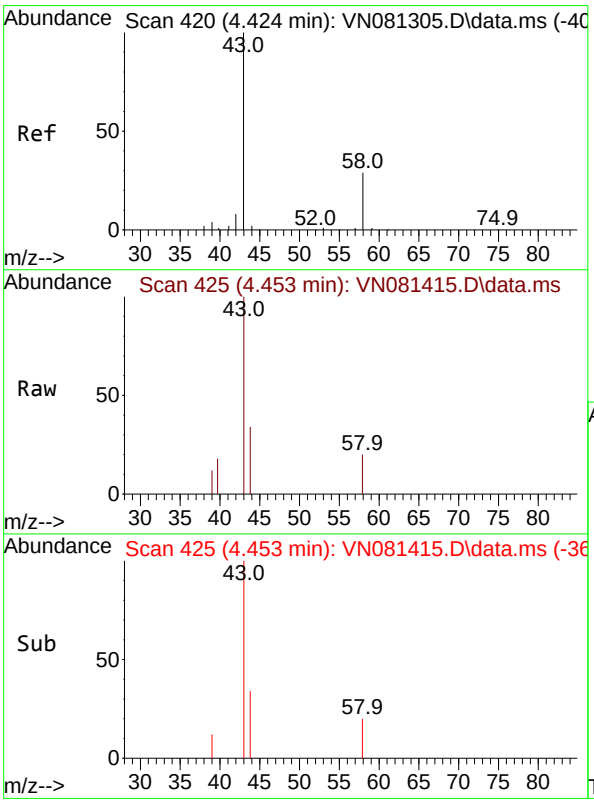
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Tgt Ion:168 Resp: 293736

Ion	Ratio	Lower	Upper
168	100		
99	66.2	59.9	89.9

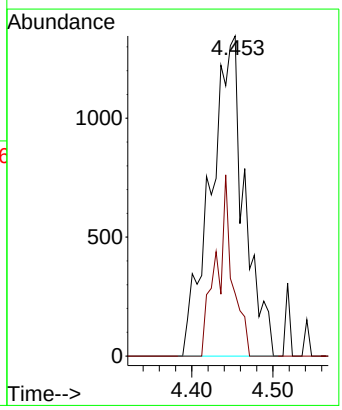


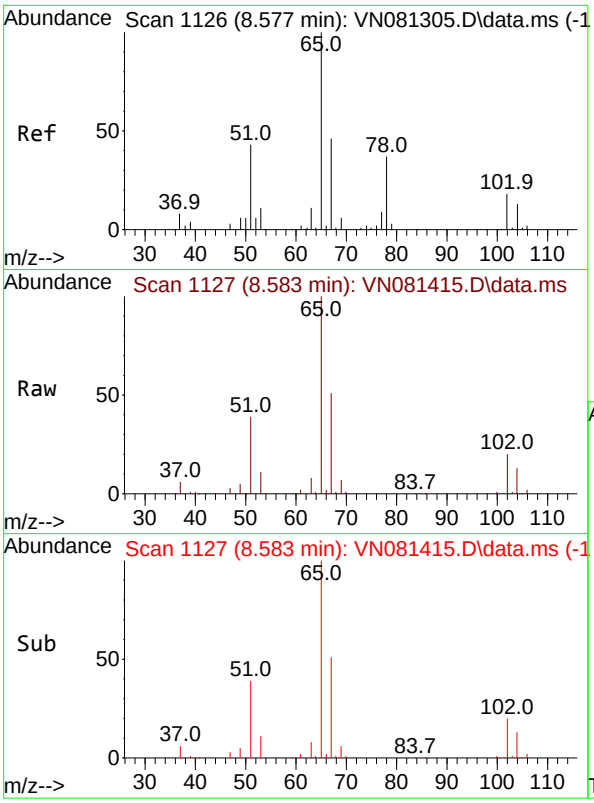


#16
Acetone
Concen: 2.592 ug/l
RT: 4.453 min Scan# 425
Delta R.T. 0.030 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Tgt Ion: 43 Resp: 3900

Ion	Ratio	Lower	Upper
43	100		
58	19.5	24.8	37.2#



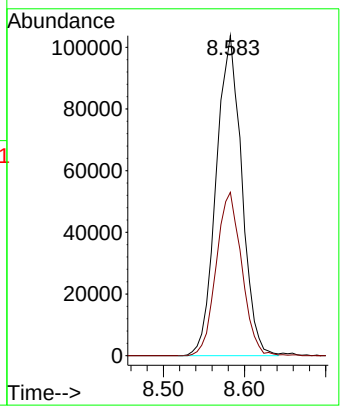


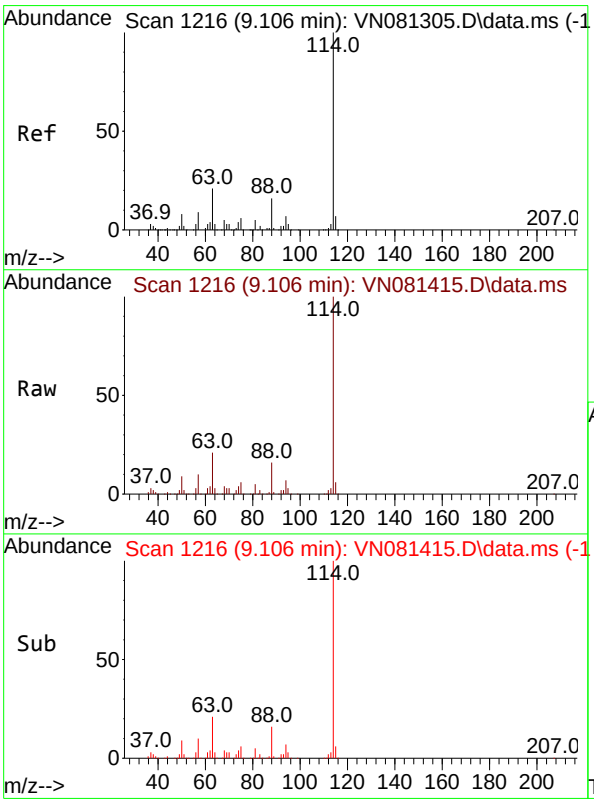
#33
1,2-Dichloroethane-d4
Concen: 53.385 ug/l
RT: 8.583 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Tgt Ion: 65 Resp: 226732

Ion	Ratio	Lower	Upper
65	100		
67	51.2	0.0	102.4

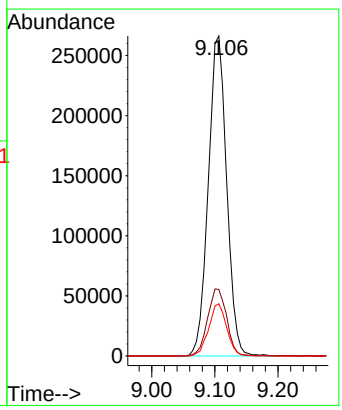


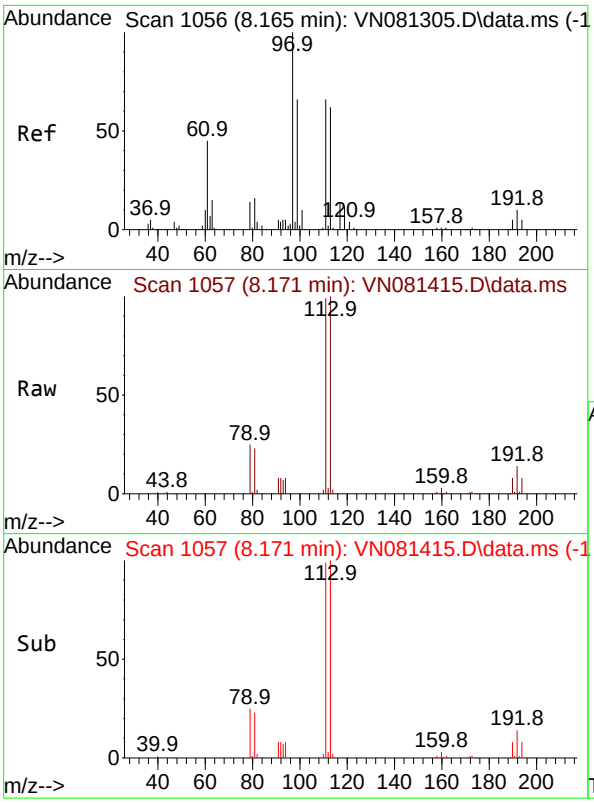


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. 0.000 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Tgt Ion:114 Resp: 538371

Ion	Ratio	Lower	Upper
114	100		
63	20.8	0.0	48.0
88	16.3	0.0	34.8



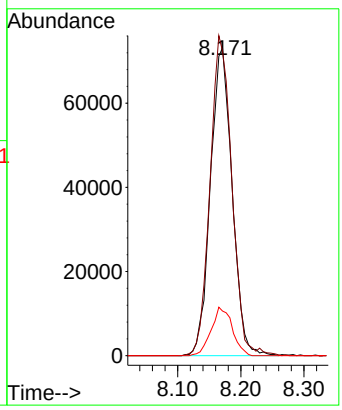


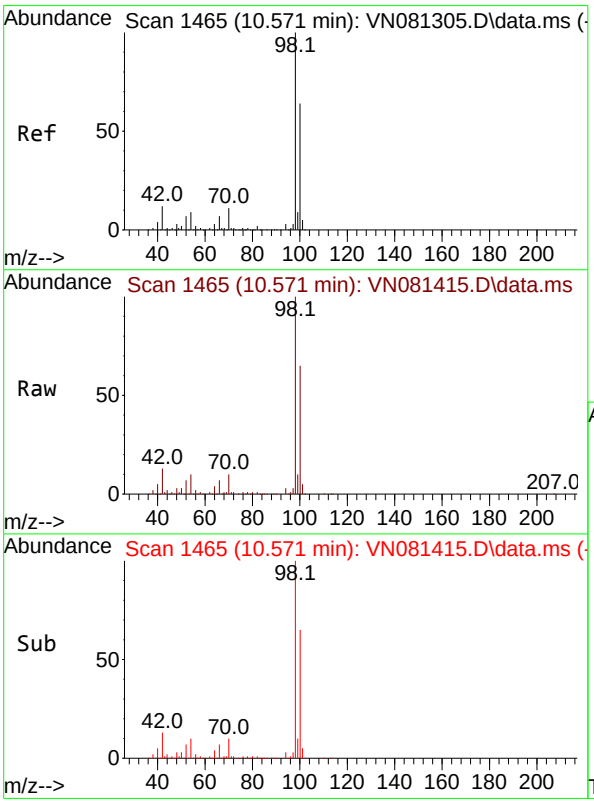
#35
Dibromofluoromethane
Concen: 52.943 ug/l
RT: 8.171 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Tgt Ion:113 Resp: 174629

Ion	Ratio	Lower	Upper
113	100		
111	104.2	82.2	123.4
192	15.3	12.5	18.7

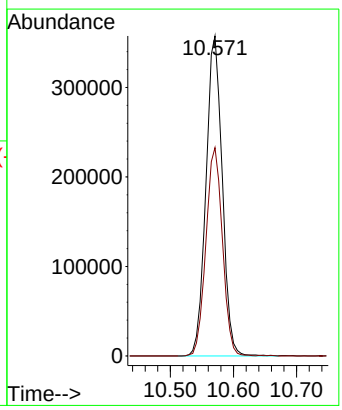


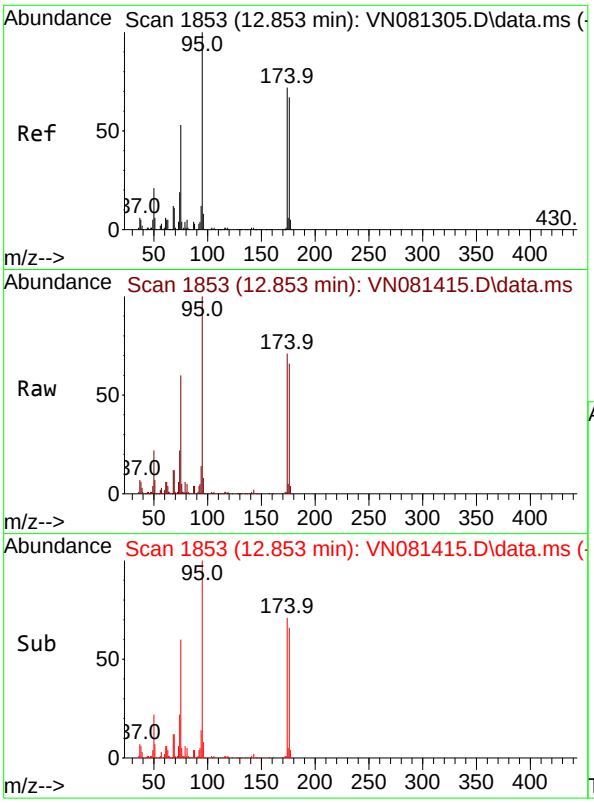


#50
Toluene-d8
Concen: 51.849 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. 0.000 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Tgt Ion: 98 Resp: 639307

Ion	Ratio	Lower	Upper
98	100		
100	66.0	51.4	77.0



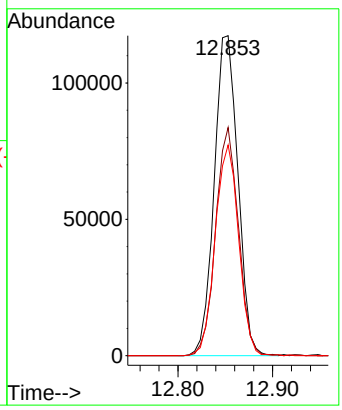


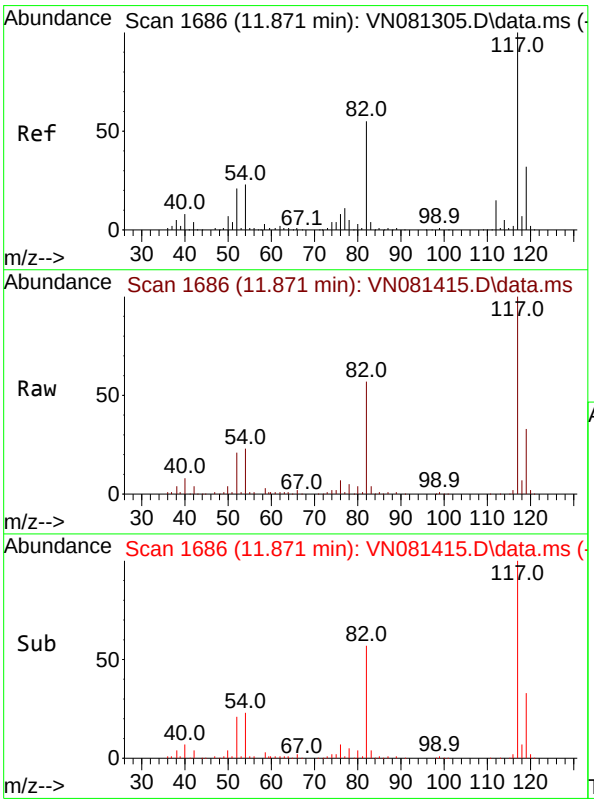
#62
4-Bromofluorobenzene
Concen: 46.813 ug/l
RT: 12.853 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Tgt Ion: 95 Resp: 204011

Ion	Ratio	Lower	Upper
95	100		
174	68.8	0.0	120.4
176	65.2	0.0	121.0

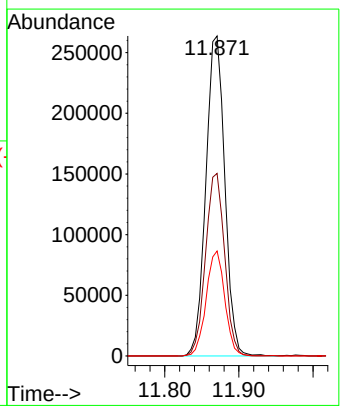


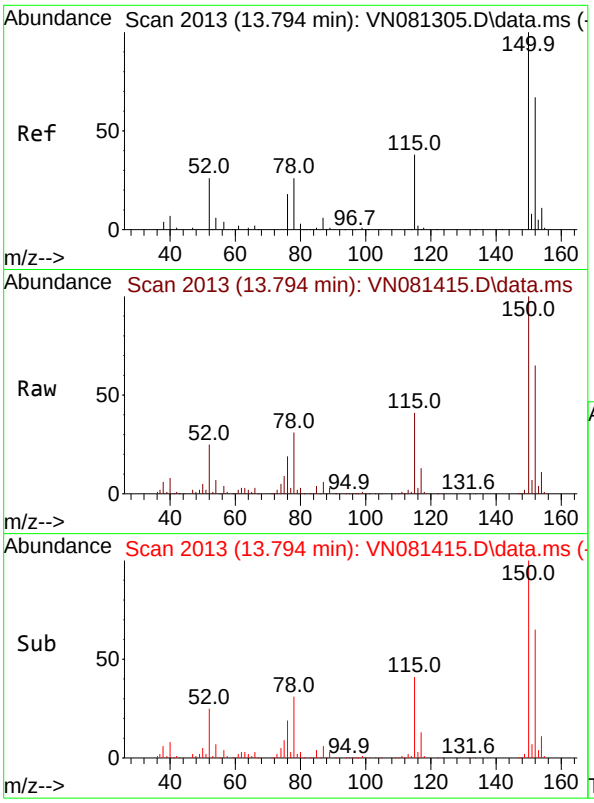


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1686
Delta R.T. 0.000 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Tgt Ion:117 Resp: 468090

Ion	Ratio	Lower	Upper
117	100		
82	57.1	52.7	79.1
119	32.8	25.3	37.9



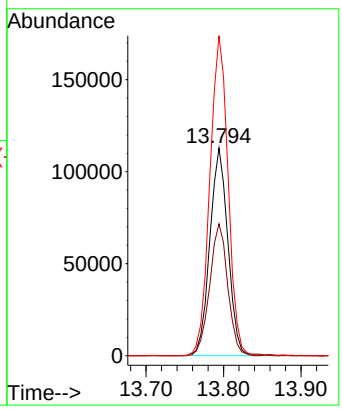


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN081415.D
Acq: 14 Mar 2024 17:17

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Tgt Ion:152 Resp: 182546

Ion	Ratio	Lower	Upper
152	100		
115	63.7	32.3	96.8
150	155.5	0.0	339.8



Sample Results: **VN081415.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081415.D
Acq On : 14 Mar 2024 17:17
Operator : JC\MD
Sample : P1747-05
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Title : SW846 8260

Signal : TIC: VN081415.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.807	140	145	154	rVB3	16526	32186	1.83%	0.355%
2	8.165	1046	1056	1061	rBV	242599	583689	33.20%	6.437%
3	8.230	1061	1067	1077	rVB	441663	974577	55.44%	10.748%
4	8.583	1115	1127	1137	rBV	286424	633950	36.06%	6.991%
5	9.106	1205	1216	1225	rBV	644110	1319678	75.07%	14.554%
6	10.571	1456	1465	1474	rBV	961031	1757959	100.00%	19.387%
7	11.871	1678	1686	1695	rBV	837845	1506124	85.67%	16.610%
8	12.853	1845	1853	1860	rBV	601280	1027151	58.43%	11.328%
9	13.794	2004	2013	2023	rBV	747033	1232358	70.10%	13.591%

Sum of corrected areas: 9067672

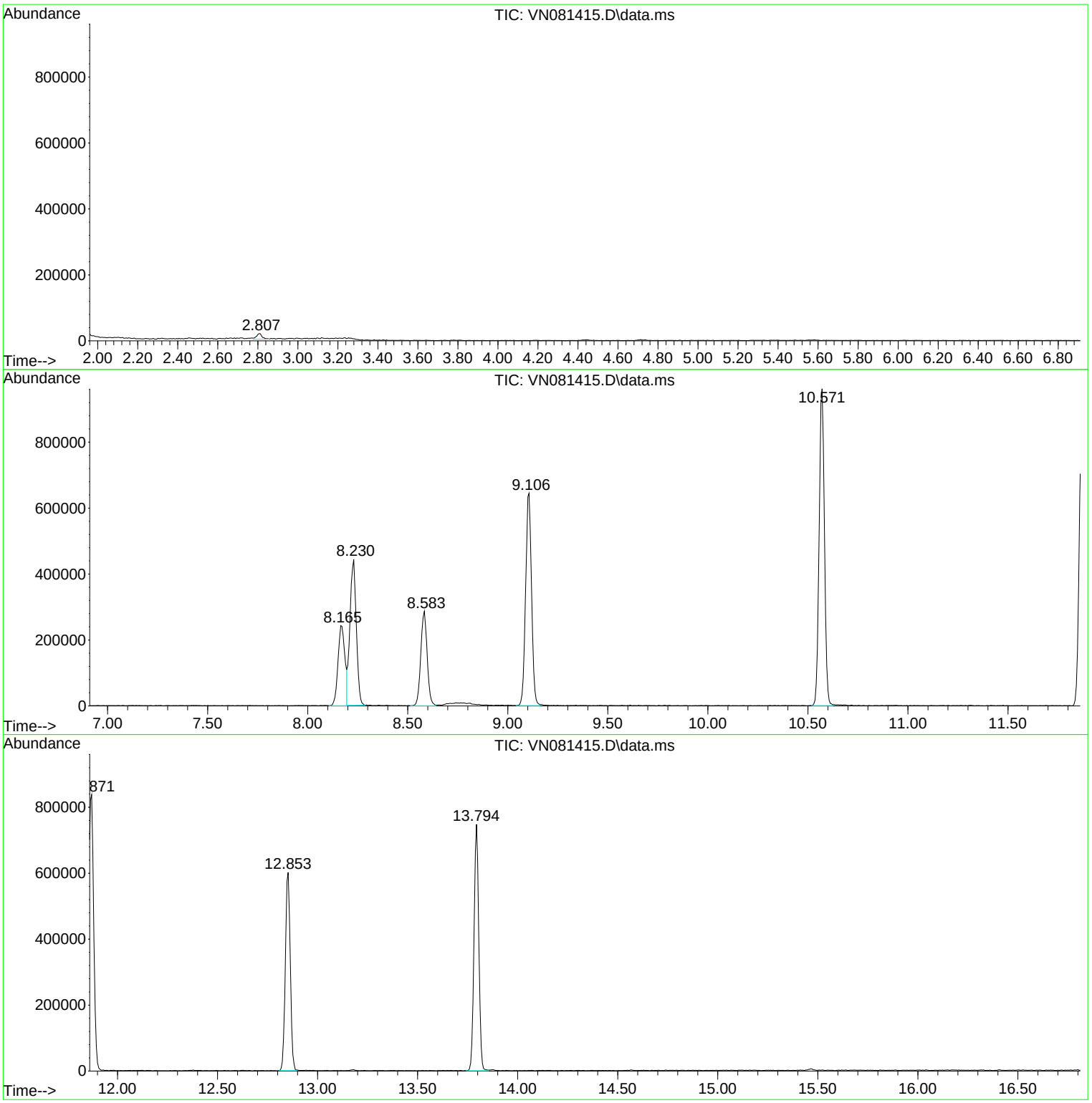
Sample Results: **VN081415.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081415.D
Acq On : 14 Mar 2024 17:17
Operator : JC\MD
Sample : P1747-05
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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



Library Search Compound Report

Sample Results: **VN081415.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081415.D
Acq On : 14 Mar 2024 17:17
Operator : JC\MD
Sample : P1747-05
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected
****

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081415.D
Acq On : 14 Mar 2024 17:17
Operator : JC\MD
Sample : P1747-05
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MW-04

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

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

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	TRIP-BLANK-1	SDG No.:	P1747
Lab Sample ID:	P1747-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081410.D	1		03/14/24 15:17	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.34	U	0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	1.40	U	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.60	U	0.60	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
74-97-5	Bromochloromethane	0.18	U	0.18	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.18	U	0.18	1.00	ug/L

Raw Data: **VN081410.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	TRIP-BLANK-1	SDG No.:	P1747
Lab Sample ID:	P1747-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081410.D	1		03/14/24 15:17	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.5		74 - 125	99%	SPK: 50
1868-53-7	Dibromofluoromethane	51.3		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	52.1		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.4		64 - 133	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	345000	8.224			
540-36-3	1,4-Difluorobenzene	628000	9.106			
3114-55-4	Chlorobenzene-d5	533000	11.87			
3855-82-1	1,4-Dichlorobenzene-d4	206000	13.794			

Raw Data: **VN081410.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	TRIP-BLANK-1	SDG No.:	P1747
Lab Sample ID:	P1747-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081410.D	1		03/14/24 15:17	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081410.D
Acq On : 14 Mar 2024 15:17
Operator : JC\MD
Sample : P1747-06
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Quant Time: Mar 15 01:13:42 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	344974	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	628116	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	532846	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	205915	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	247098	49.539	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 99.080%			
35) Dibromofluoromethane	8.171	113	197307	51.272	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.540%			
50) Toluene-d8	10.571	98	748829	52.054	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 104.100%			
62) 4-Bromofluorobenzene	12.853	95	225829	44.416	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 88.840%			

Target Compounds Qvalue

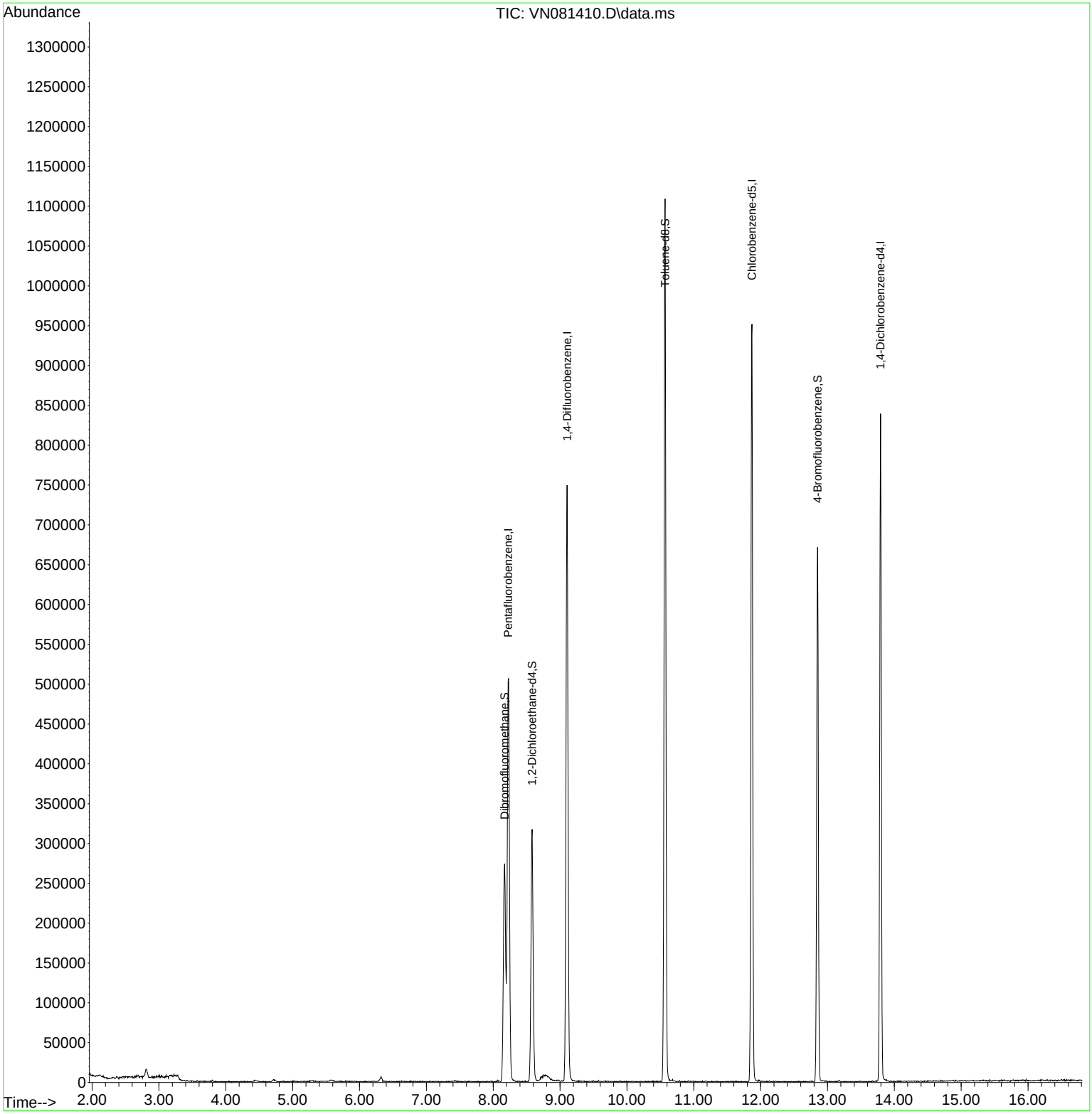
(#) = qualifier out of range (m) = manual integration (+) = signals summed

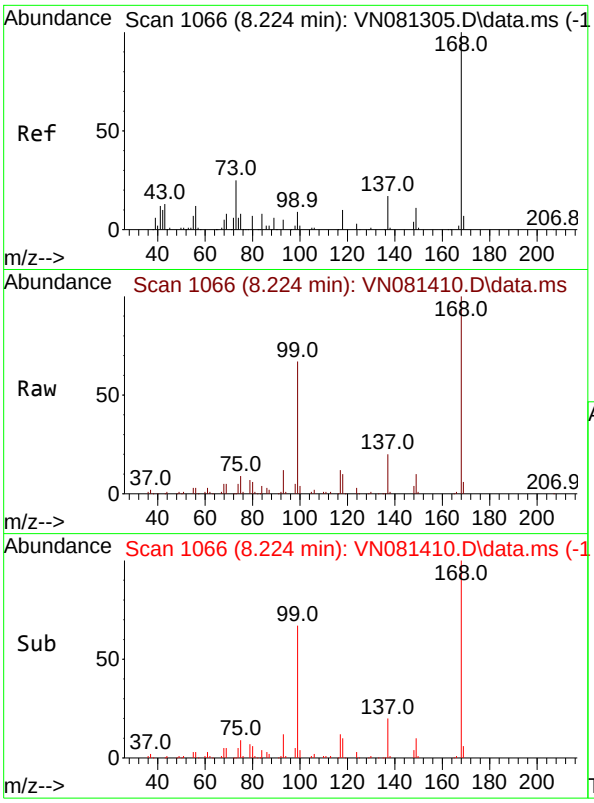
Sample Results: **VN081410.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081410.D
Acq On : 14 Mar 2024 15:17
Operator : JC\MD
Sample : P1747-06
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Quant Time: Mar 15 01:13:42 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration



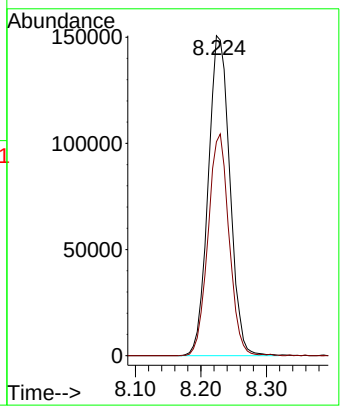


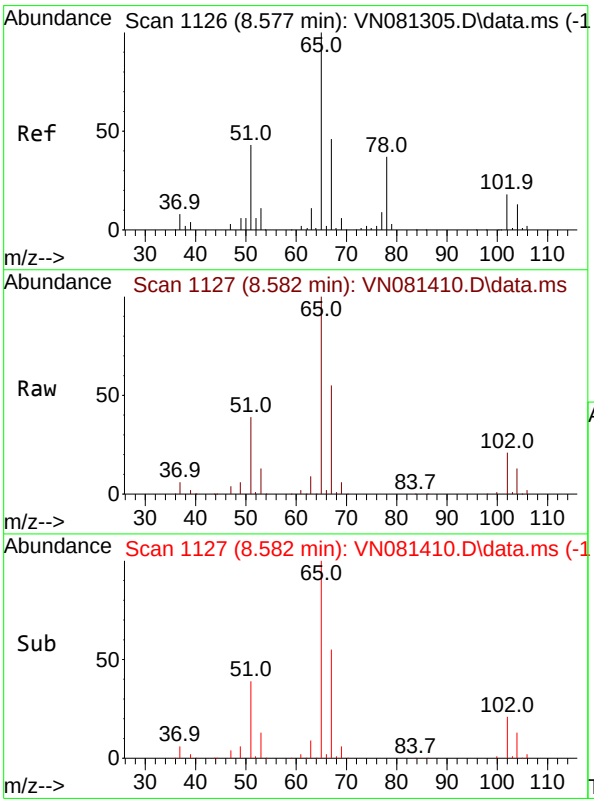
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN081410.D
Acq: 14 Mar 2024 15:17

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Tgt Ion:168 Resp: 344974

Ion	Ratio	Lower	Upper
168	100		
99	66.9	59.9	89.9

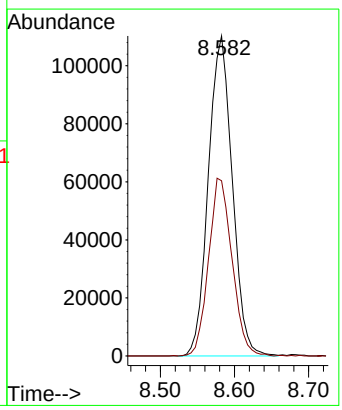


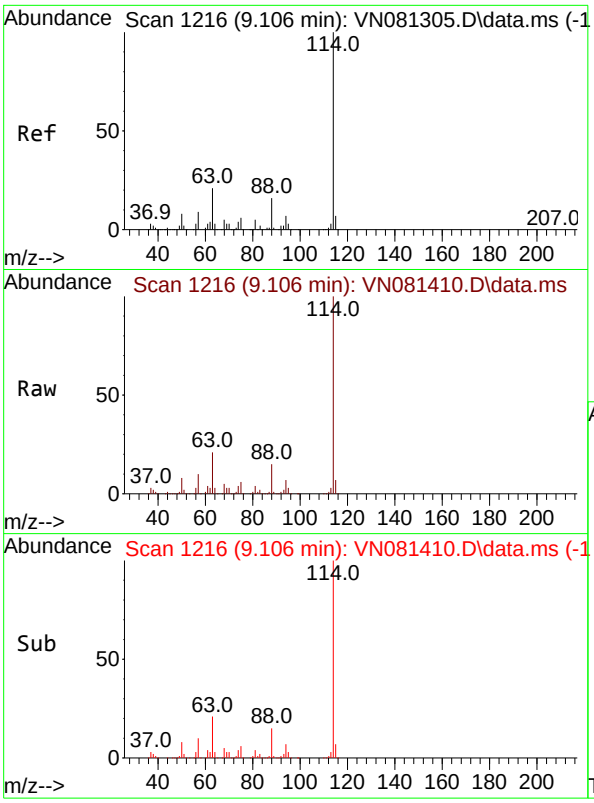


#33
1,2-Dichloroethane-d4
Concen: 49.539 ug/l
RT: 8.582 min Scan# 1127
Delta R.T. 0.006 min
Lab File: VN081410.D
Acq: 14 Mar 2024 15:17

Tgt Ion: 65 Resp: 247098

Ion	Ratio	Lower	Upper
65	100		
67	54.6	0.0	102.4



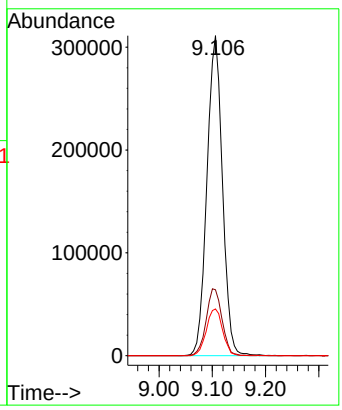


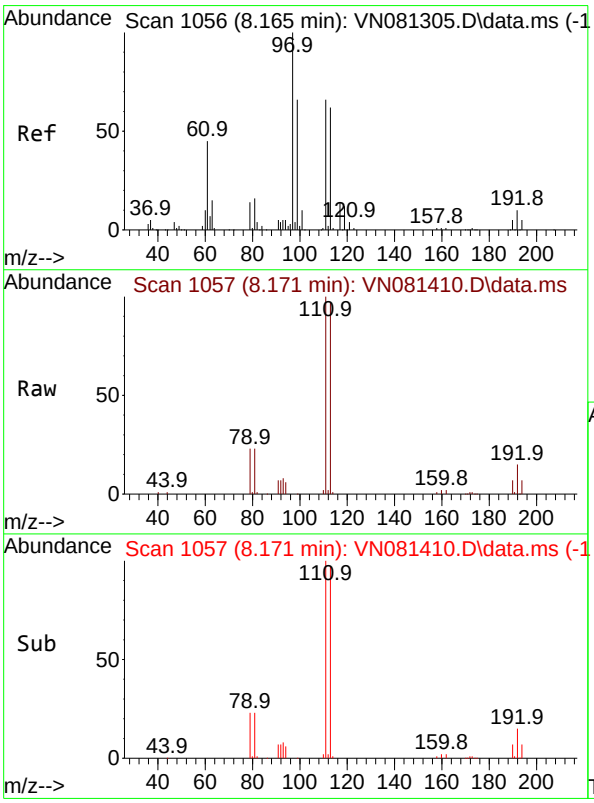
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN081410.D
Acq: 14 Mar 2024 15:17

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Tgt Ion:114 Resp: 628116

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	48.0
88	14.6	0.0	34.8

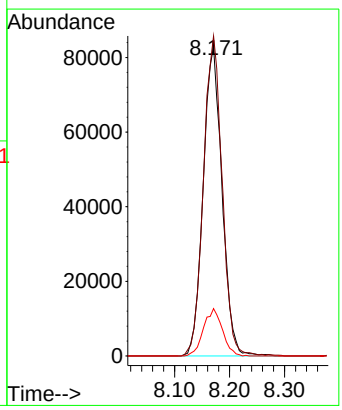


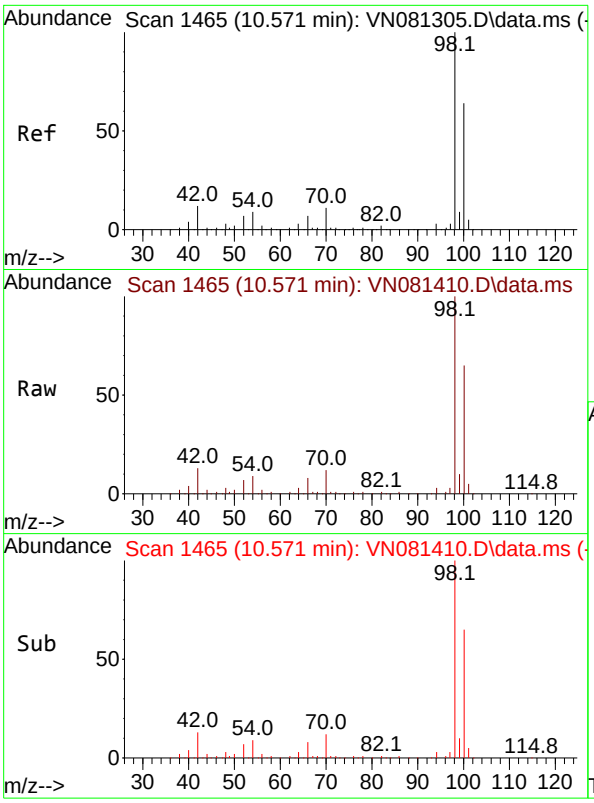


#35
Dibromofluoromethane
Concen: 51.272 ug/l
RT: 8.171 min Scan# 1057
Delta R.T. 0.006 min
Lab File: VN081410.D
Acq: 14 Mar 2024 15:17

Tgt Ion:113 Resp: 197307

Ion	Ratio	Lower	Upper
113	100		
111	102.5	82.2	123.4
192	15.4	12.5	18.7



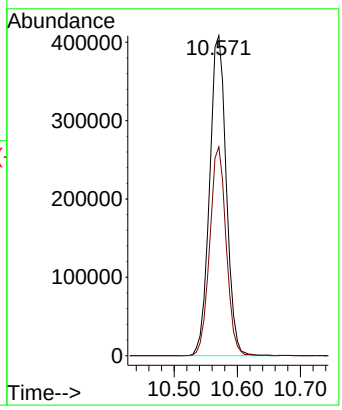


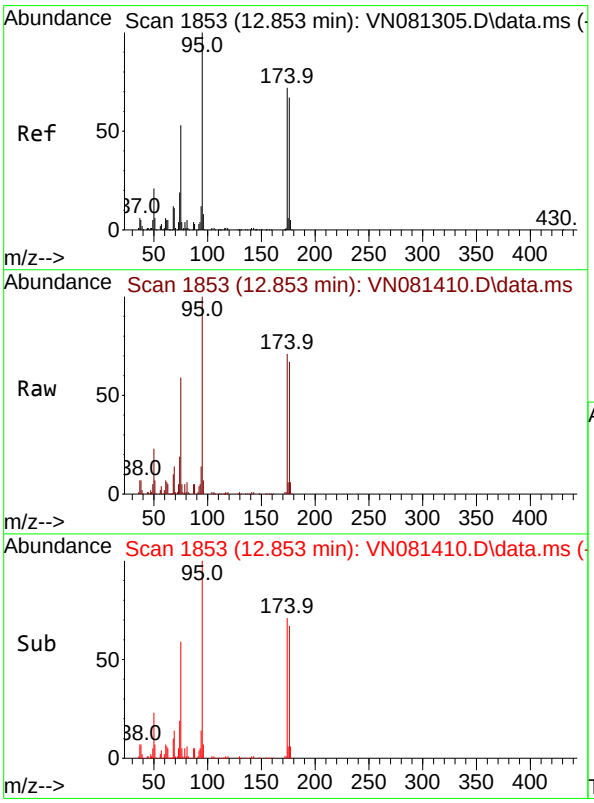
#50
Toluene-d8
Concen: 52.054 ug/l
RT: 10.571 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN081410.D
Acq: 14 Mar 2024 15:17

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Tgt Ion: 98 Resp: 748829

Ion	Ratio	Lower	Upper
98	100		
100	64.2	51.4	77.0

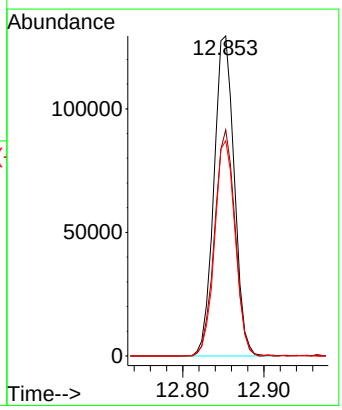


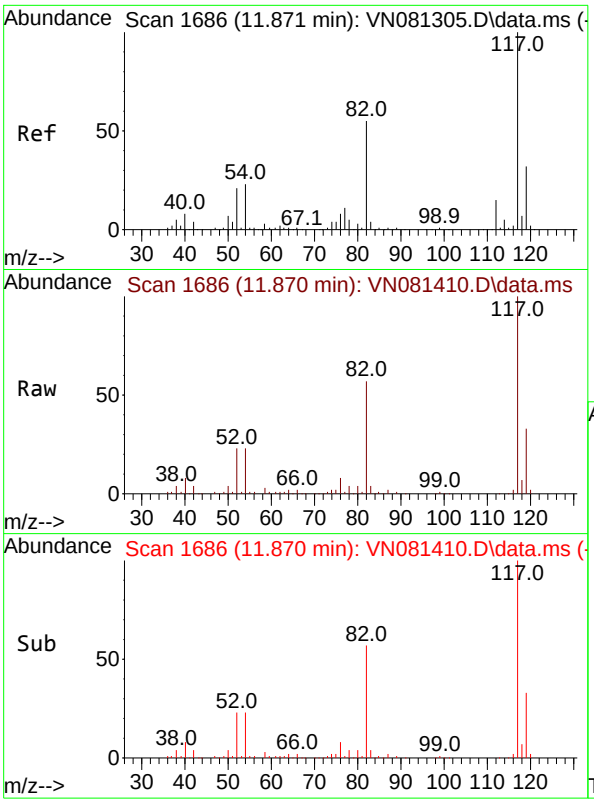


#62
4-Bromofluorobenzene
Concen: 44.416 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN081410.D
Acq: 14 Mar 2024 15:17

Tgt Ion: 95 Resp: 225829

Ion	Ratio	Lower	Upper
95	100		
174	71.0	0.0	120.4
176	67.8	0.0	121.0



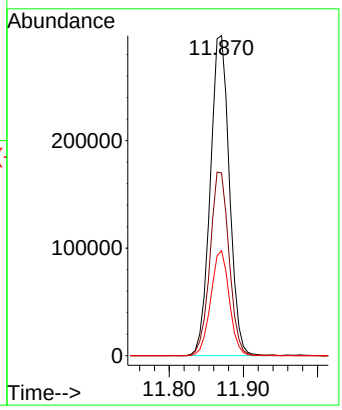


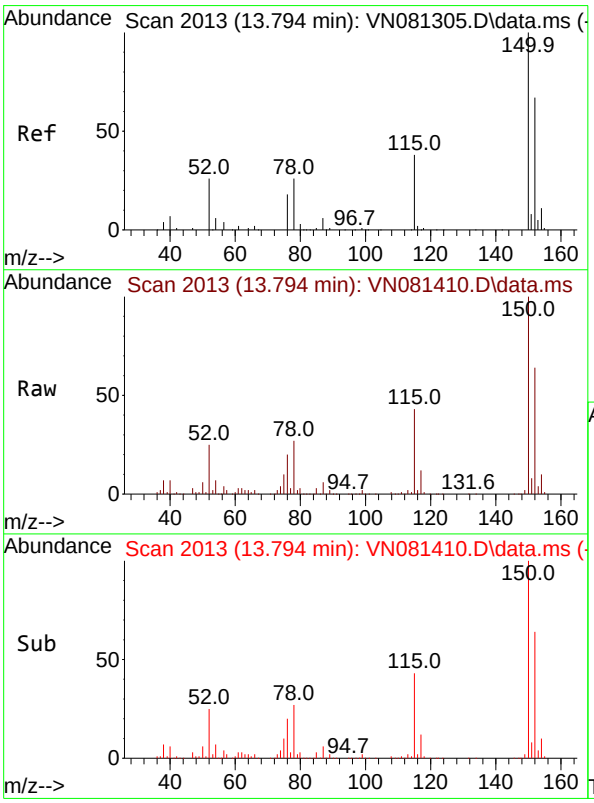
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN081410.D
Acq: 14 Mar 2024 15:17

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Tgt Ion:117 Resp: 532846

Ion	Ratio	Lower	Upper
117	100		
82	57.1	52.7	79.1
119	32.8	25.3	37.9

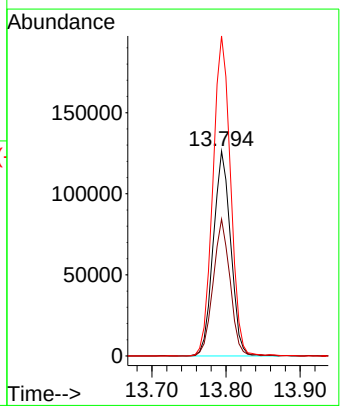




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. -0.000 min
Lab File: VN081410.D
Acq: 14 Mar 2024 15:17

Tgt Ion:152 Resp: 205915

Ion	Ratio	Lower	Upper
152	100		
115	64.8	32.3	96.8
150	158.2	0.0	339.8



Sample Results: **VN081410.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081410.D
Acq On : 14 Mar 2024 15:17
Operator : JC\MD
Sample : P1747-06
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Title : SW846 8260

Signal : TIC: VN081410.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.806	140	145	152	rVB4	10570	24547	1.21%	0.237%
2	8.171	1047	1057	1061	rBV	273230	651716	32.21%	6.298%
3	8.230	1061	1067	1079	rVB	505049	1158690	57.26%	11.197%
4	8.582	1117	1127	1137	rBV	316783	706447	34.91%	6.827%
5	9.106	1207	1216	1229	rBV	748037	1528001	75.51%	14.766%
6	10.571	1456	1465	1476	rBV	1108481	2023498	100.00%	19.554%
7	11.870	1677	1686	1696	rBV	950890	1704566	84.24%	16.472%
8	12.853	1845	1853	1863	rBV	670807	1167007	57.67%	11.277%
9	13.794	2003	2013	2023	rBV	838297	1383927	68.39%	13.373%

Sum of corrected areas: 10348399

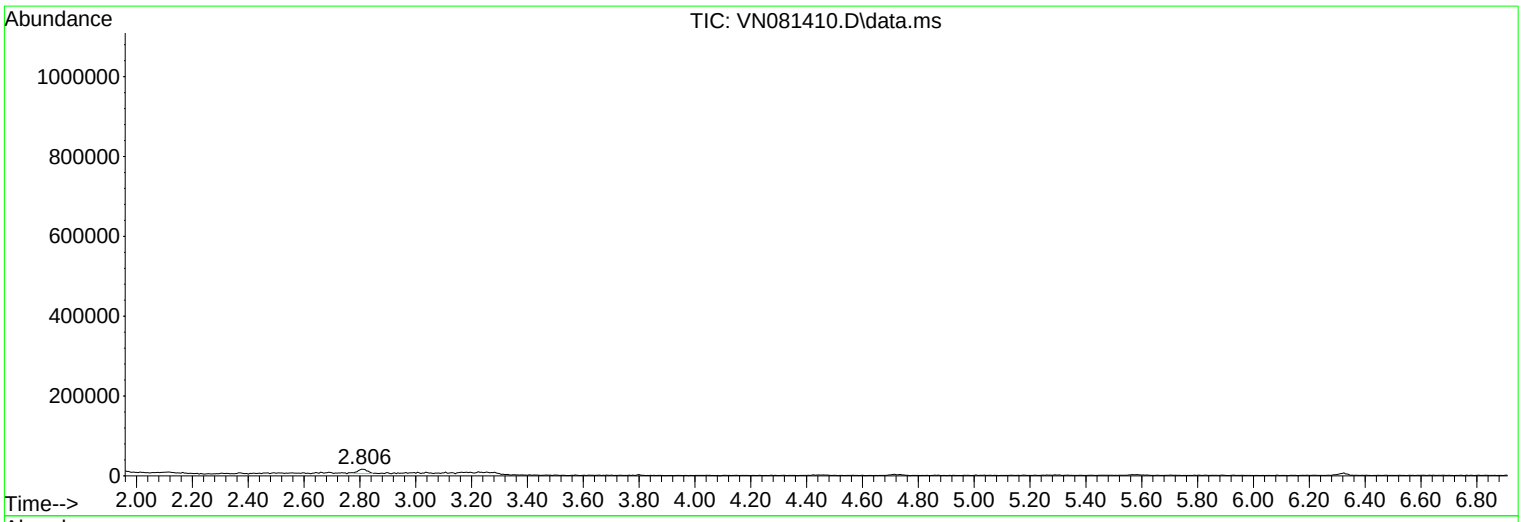
Sample Results: **VN081410.D**

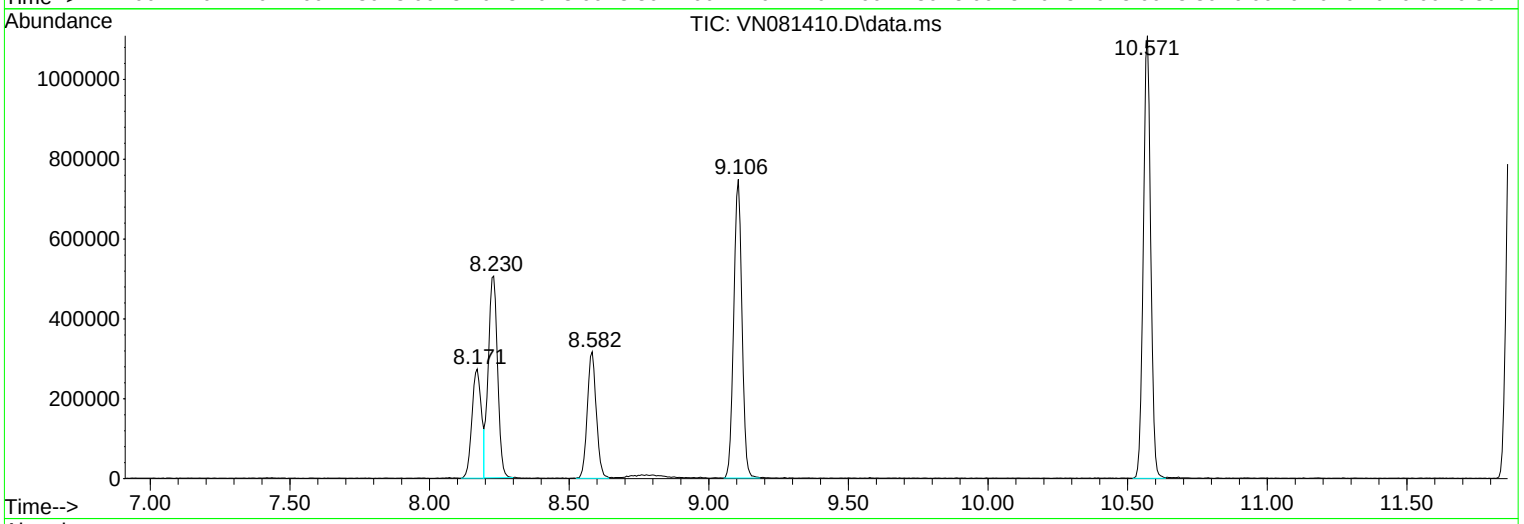
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081410.D
Acq On : 14 Mar 2024 15:17
Operator : JC\MD
Sample : P1747-06
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

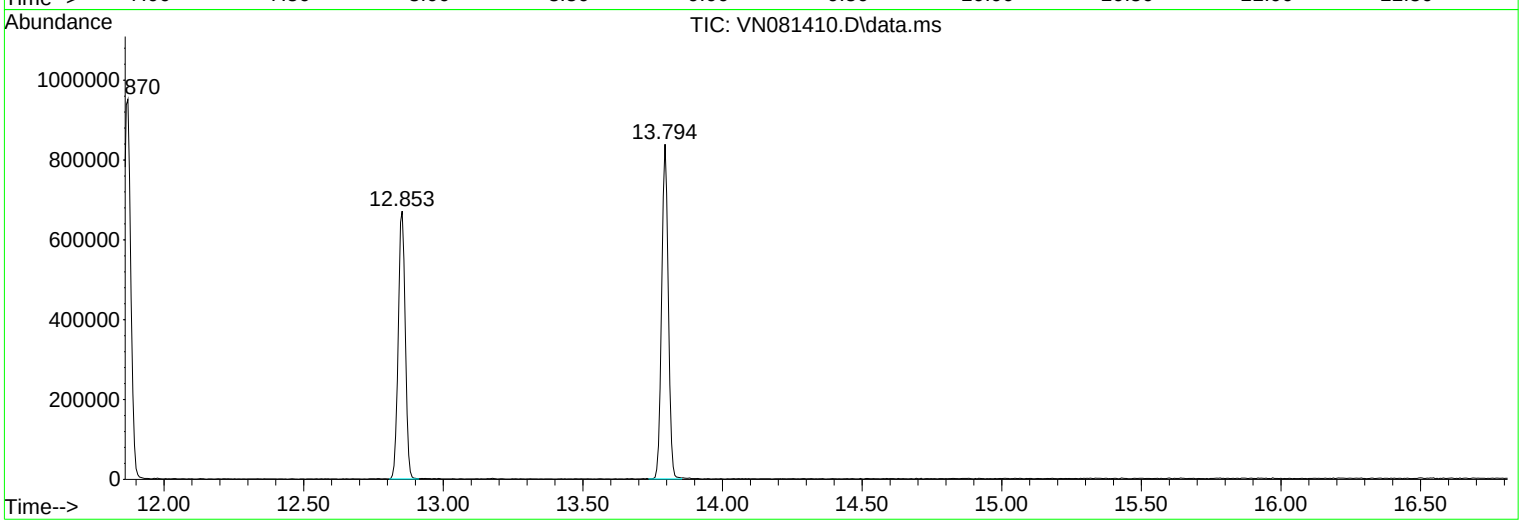
Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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







Library Search Compound Report

Sample Results: **VN081410.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081410.D
Acq On : 14 Mar 2024 15:17
Operator : JC\MD
Sample : P1747-06
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected
****

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081410.D
Acq On : 14 Mar 2024 15:17
Operator : JC\MD
Sample : P1747-06
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TRIP-BLANK

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

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

CHEMTECH

CALIBRATION SUMMARY

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG No.: P1747

Instrument ID: MSVOA_N Calibration Date(s): 03/05/2024 03/05/2024

Heated Purge: (Y/N) N Calibration Time(s): 12:00 13:59

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

LAB FILE ID: RRF100 = VN081304.D RRF050 = VN081305.D RRF020 = VN081306.D
RRF010 = VN081307.D RRF005 = VN081308.D RRF001 = VN081309.D

COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.724	0.714	0.611	0.747	0.611	0.570	0.663	11.2
Chloromethane	0.645	0.666	0.673	0.718	0.709	0.885	0.716	12.2
Vinyl Chloride	0.705	0.695	0.724	0.754	0.732	0.871	0.747	8.6
Bromomethane	0.437	0.463	0.497	0.509	0.588		0.499	11.5
Chloroethane	0.474	0.458	0.486	0.470	0.582	0.609	0.513	12.7
Trichlorofluoromethane	1.078	1.055	1.108	1.121	1.119	1.150	1.105	3.1
1,1,2-Trichlorotrifluoroethane	0.600	0.578	0.625	0.635	0.637	0.700	0.629	6.6
1,1-Dichloroethene	0.566	0.551	0.578	0.574	0.600	0.627	0.583	4.6
Acetone	0.217	0.227	0.252	0.270	0.265	0.306	0.256	12.5
Carbon Disulfide	1.596	1.535	1.637	1.602	1.691	1.918	1.663	8.1
Methyl tert-butyl Ether	1.916	1.887	2.009	1.926	1.959	2.160	1.976	5
Methyl Acetate	0.734	0.722	0.677	0.797	0.710	0.761	0.733	5.7
Methylene Chloride	0.629	0.624	0.684	0.666	0.692	1.014	0.718	20.6
trans-1,2-Dichloroethene	0.606	0.601	0.646	0.635	0.665	0.789	0.657	10.5
1,1-Dichloroethane	1.121	1.104	1.194	1.167	1.193	1.276	1.176	5.2
Cyclohexane	1.024	0.995	1.094	1.095	1.265		1.095	9.6
2-Butanone	0.393	0.396	0.439	0.443	0.428	0.474	0.429	7.2
Carbon Tetrachloride	0.524	0.502	0.524	0.486	0.482	0.466	0.497	4.7
cis-1,2-Dichloroethene	0.698	0.678	0.736	0.719	0.794	0.844	0.745	8.4
Bromochloromethane	0.429	0.470	0.455	0.498	0.593	0.572	0.503	13.1
Chloroform	1.180	1.158	1.256	1.200	1.245	1.283	1.220	4
1,1,1-Trichloroethane	1.073	1.028	1.124	1.068	1.086	1.092	1.078	2.9
Methylcyclohexane	0.619	0.576	0.578	0.550	0.536	0.553	0.569	5.2
Benzene	1.465	1.428	1.503	1.465	1.488	1.502	1.475	1.9
1,2-Dichloroethane	0.519	0.509	0.542	0.508	0.518	0.525	0.520	2.4
Trichloroethene	0.375	0.367	0.389	0.353	0.343	0.406	0.372	6.2
1,2-Dichloropropane	0.367	0.359	0.389	0.364	0.386	0.359	0.371	3.6
Bromodichloromethane	0.536	0.503	0.530	0.497	0.484	0.493	0.507	4.1
4-Methyl-2-Pentanone	0.500	0.486	0.520	0.497	0.501	0.441	0.491	5.5
Toluene	0.934	0.894	0.939	0.871	0.886	0.823	0.891	4.8
t-1,3-Dichloropropene	0.605	0.557	0.565	0.525	0.514	0.527	0.549	6.2
cis-1,3-Dichloropropene	0.632	0.597	0.630	0.560	0.581	0.553	0.592	5.7
1,1,2-Trichloroethane	0.360	0.344	0.359	0.350	0.382	0.324	0.353	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.

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG No.: P1747

Instrument ID: MSVOA_N Calibration Date(s): 03/05/2024 03/05/2024

Heated Purge: (Y/N) N Calibration Time(s): 12:00 13:59

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

LAB FILE ID: RRF100 = VN081304.D RRF050 = VN081305.D RRF020 = VN081306.D
RRF010 = VN081307.D RRF005 = VN081308.D RRF001 = VN081309.D

COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	$\overline{RRF}$	% RSD
2-Hexanone	0.376	0.366	0.396	0.368	0.363	0.333	0.367	5.6
Dibromochloromethane	0.390	0.369	0.383	0.351	0.348	0.343	0.364	5.4
1,2-Dibromoethane	0.376	0.364	0.386	0.366	0.365	0.343	0.367	4
Tetrachloroethene	0.388	0.372	0.404	0.393	0.390	0.403	0.391	3
Chlorobenzene	1.043	1.018	1.116	1.032	1.043	1.069	1.054	3.3
Ethyl Benzene	2.004	1.913	1.973	1.802	1.847	1.849	1.898	4.2
m/p-Xylenes	0.753	0.717	0.756	0.691	0.674	0.695	0.714	4.8
o-Xylene	0.730	0.695	0.725	0.676	0.656	0.670	0.692	4.4
Styrene	1.224	1.162	1.196	1.065	1.014	0.921	1.097	10.7
Bromoform	0.283	0.272	0.271	0.245	0.254	0.281	0.268	5.7
Isopropylbenzene	3.976	4.130	4.244	4.101	3.899	3.876	4.037	3.6
1,1,2,2-Tetrachloroethane	1.118	1.163	1.261	1.294	1.212	1.428	1.246	8.8
1,3-Dichlorobenzene	1.693	1.703	1.772	1.767	1.783	2.128	1.808	8.9
1,4-Dichlorobenzene	1.699	1.705	1.824	1.764	1.779	2.070	1.807	7.6
1,2-Dichlorobenzene	1.633	1.638	1.736	1.750	1.762	1.886	1.734	5.4
1,2-Dibromo-3-Chloropropane	0.255	0.262	0.270	0.275	0.239	0.300	0.267	7.7
1,2,4-Trichlorobenzene	0.988	0.940	0.961	0.844	0.832	0.997	0.927	7.7
1,2,3-Trichlorobenzene	0.977	0.926	0.953	0.925	0.822	1.037	0.940	7.5
1,2-Dichloroethane-d4	0.721	0.746	0.734	0.715	0.699		0.723	2.5
Dibromofluoromethane	0.320	0.326	0.309	0.289	0.288		0.306	5.7
Toluene-d8	1.203	1.237	1.177	1.049	1.060		1.145	7.5
4-Bromofluorobenzene	0.449	0.438	0.410	0.368	0.359		0.405	9.9

* 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.

Response Factor Report MSVOA_N_NEW

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N030524W.M
Title : SW846 8260
Last Update : Wed Mar 06 03:12:57 2024
Response Via : Initial Calibration

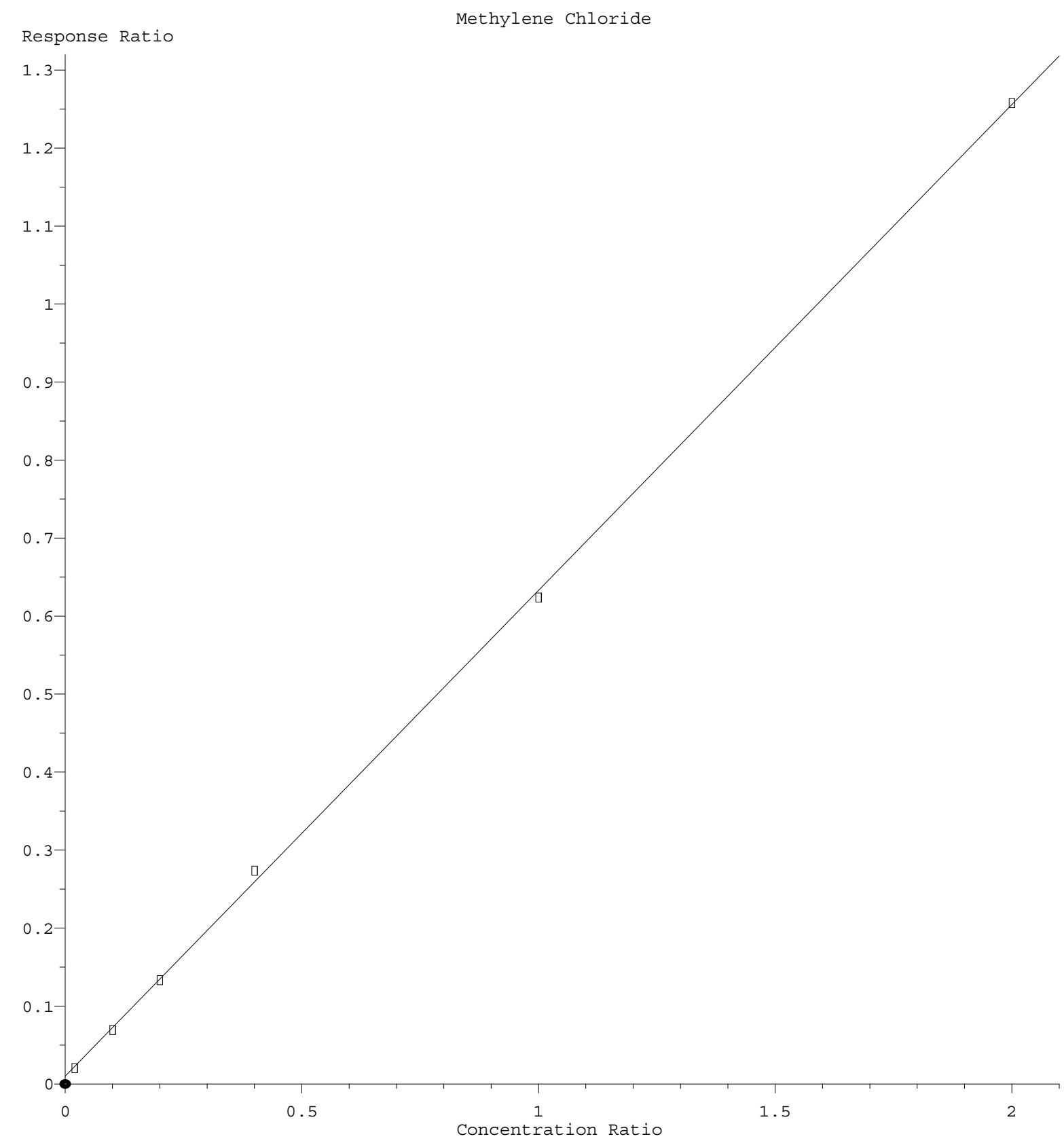
Calibration Files
1 =VN081309.D 5 =VN081308.D 10 =VN081307.D 20 =VN081306.D 50 =VN081305.D 100 =VN081304.D

		Compound	1	5	10	20	50	100	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluo...	0.570	0.611	0.747	0.611	0.714	0.724	0.663	11.18
3)	P	Chloromethane	0.885	0.709	0.718	0.673	0.666	0.645	0.716	12.18
4)	C	Vinyl Chloride	0.871	0.732	0.754	0.724	0.695	0.705	0.747	8.63#
5)	T	Bromomethane		0.588	0.509	0.497	0.463	0.437	0.499	11.54
6)	T	Chloroethane	0.609	0.582	0.470	0.486	0.458	0.474	0.513	12.67
7)	T	Trichlorofluor...	1.150	1.119	1.121	1.108	1.055	1.078	1.105	3.06
8)	T	Diethyl Ether	0.388	0.391	0.394	0.404	0.379	0.380	0.389	2.43
9)	T	1,1,2-Trichlor...	0.700	0.637	0.635	0.625	0.578	0.600	0.629	6.56
10)	T	Methyl Iodide		0.545	0.519	0.581	0.591	0.643	0.576	8.21
11)	T	Tert butyl alc...		0.145	0.132	0.129	0.113	0.113	0.126	10.66
12)	CM	1,1-Dichloroet...	0.627	0.600	0.574	0.578	0.551	0.566	0.583	4.60#
13)	T	Acrolein		0.161	0.152	0.149	0.144	0.143	0.150	4.71
14)	T	Allyl chloride	0.974	0.864	0.835	0.866	0.800	0.848	0.865	6.80
15)	T	Acrylonitrile	0.357	0.342	0.322	0.342	0.307	0.312	0.330	5.99
16)	T	Acetone	0.306	0.265	0.270	0.252	0.227	0.217	0.256	12.49
17)	T	Carbon Disulfide	1.918	1.691	1.602	1.637	1.535	1.596	1.663	8.11
18)	T	Methyl Acetate	0.761	0.710	0.797	0.677	0.722	0.734	0.733	5.70
19)	T	Methyl tert-bu...	2.160	1.959	1.926	2.009	1.887	1.916	1.976	5.03
20)	T	Methylene Chlo...	1.014	0.692	0.666	0.684	0.624	0.629	0.718	20.58
21)	T	trans-1,2-Dich...	0.789	0.665	0.635	0.646	0.601	0.606	0.657	10.53
22)	T	Diisopropyl ether	1.729	1.952	1.924	2.066	1.911	1.942	1.921	5.67
23)	T	Vinyl Acetate	1.447	1.550	1.525	1.698	1.549	1.593	1.560	5.32
24)	P	1,1-Dichloroet...	1.276	1.193	1.167	1.194	1.104	1.121	1.176	5.23
25)	T	2-Butanone	0.474	0.428	0.443	0.439	0.396	0.393	0.429	7.17
26)	T	2,2-Dichloropr...	1.202	0.956	0.972	1.055	1.011	1.038	1.039	8.51
27)	T	cis-1,2-Dichlo...	0.844	0.794	0.719	0.736	0.678	0.698	0.745	8.41
28)	T	Bromochloromet...	0.572	0.593	0.498	0.455	0.470	0.429	0.503	13.10
29)	T	Tetrahydrofuran	0.320	0.295	0.299	0.300	0.270	0.271	0.293	6.53
30)	C	Chloroform	1.283	1.245	1.200	1.256	1.158	1.180	1.220	3.98#
31)	T	Cyclohexane		1.265	1.095	1.094	0.995	1.024	1.095	9.57
32)	T	1,1,1-Trichlor...	1.092	1.086	1.068	1.124	1.028	1.073	1.078	2.94
33)	S	1,2-Dichloroet...		0.699	0.715	0.734	0.746	0.721	0.723	2.53
34)	I	1,4-Difluorobenzene	----------ISTD----------							
35)	S	Dibromofluorom...		0.288	0.289	0.309	0.326	0.320	0.306	5.67
36)	T	1,1-Dichloropr...	0.509	0.475	0.483	0.508	0.482	0.508	0.494	3.19
37)	T	Ethyl Acetate	0.533	0.425	0.487	0.503	0.476	0.474	0.483	7.41
38)	T	Carbon Tetrach...	0.466	0.482	0.486	0.524	0.502	0.524	0.497	4.74
39)	T	Methylcyclohexane	0.553	0.536	0.550	0.578	0.576	0.619	0.569	5.16
40)	TM	Benzene	1.502	1.488	1.465	1.503	1.428	1.465	1.475	1.93
41)	T	Methacrylonitrile	0.300	0.289	0.259	0.264	0.257	0.268	0.273	6.39
42)	TM	1,2-Dichloroet...	0.525	0.518	0.508	0.542	0.509	0.519	0.520	2.38
43)	T	Isopropyl Acetate	0.935	0.854	0.810	0.844	0.813	0.818	0.846	5.58
44)	TM	Trichloroethene	0.406	0.343	0.353	0.389	0.367	0.375	0.372	6.24
45)	C	1,2-Dichloropr...	0.359	0.386	0.364	0.389	0.359	0.367	0.371	3.59#
46)	T	Dibromomethane	0.256	0.255	0.261	0.273	0.260	0.262	0.261	2.48
47)	T	Bromodichlorom...	0.493	0.484	0.497	0.530	0.503	0.536	0.507	4.12
48)	T	Methyl methacr...	0.366	0.377	0.363	0.382	0.370	0.385	0.374	2.36
49)	T	1,4-Dioxane	0.008	0.009	0.008	0.008	0.008	0.008	0.008	5.14
50)	S	Toluene-d8		1.060	1.049	1.177	1.237	1.203	1.145	7.46
51)	T	4-Methyl-2-Pen...	0.441	0.501	0.497	0.520	0.486	0.500	0.491	5.46
52)	CM	Toluene	0.822	0.886	0.871	0.939	0.894	0.934	0.891	4.83#
53)	T	t-1,3-Dichloro...	0.527	0.514	0.525	0.565	0.557	0.605	0.549	6.16
54)	T	cis-1,3-Dichlo...	0.553	0.581	0.560	0.630	0.597	0.632	0.592	5.72
55)	T	1,1,2-Trichlor...	0.324	0.382	0.350	0.359	0.344	0.360	0.353	5.46
56)	T	Ethyl methacry...	0.434	0.480	0.486	0.541	0.534	0.570	0.507	9.82

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N030524W.M

57)	T	1,3-Dichloropr...	0.630	0.620	0.586	0.633	0.602	0.629	0.617	3.02
58)	T	2-Chloroethyl ...	0.236	0.271	0.271	0.285	0.290	0.284	0.273	7.20
59)	T	2-Hexanone	0.333	0.363	0.368	0.396	0.366	0.376	0.367	5.58
60)	T	Dibromochlorom...	0.343	0.348	0.351	0.383	0.369	0.390	0.364	5.38
61)	T	1,2-Dibromoethane	0.343	0.365	0.366	0.386	0.364	0.376	0.367	3.99
62)	S	4-Bromofluorob...		0.359	0.368	0.410	0.438	0.449	0.405	9.95
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.403	0.390	0.393	0.404	0.372	0.388	0.391	2.96
65)	PM	Chlorobenzene	1.069	1.043	1.032	1.116	1.018	1.043	1.054	3.30
66)	T	1,1,1,2-Tetrac...	0.381	0.385	0.378	0.404	0.378	0.386	0.386	2.56
67)	C	Ethyl Benzene	1.849	1.847	1.802	1.973	1.913	2.004	1.898	4.16#
68)	T	m/p-Xylenes	0.695	0.674	0.691	0.756	0.717	0.753	0.714	4.76
69)	T	o-Xylene	0.670	0.656	0.676	0.725	0.695	0.730	0.692	4.35
70)	T	Styrene	0.921	1.014	1.065	1.196	1.162	1.224	1.097	10.72
71)	P	Bromoform	0.281	0.254	0.245	0.271	0.272	0.283	0.268	5.69
72)	I	1,4-Dichlorobenzen...	----------ISTD----------							
73)	T	Isopropylbenzene	3.876	3.899	4.101	4.244	4.130	3.976	4.037	3.58
74)	T	N-amyl acetate	1.572	1.658	1.712	1.769	1.748	1.705	1.694	4.18
75)	P	1,1,2,2-Tetrac...	1.428	1.212	1.294	1.261	1.163	1.118	1.246	8.80
76)	T	1,2,3-Trichlor...	1.289	1.226	1.172	1.214	1.113	1.072	1.181	6.69
77)	T	Bromobenzene	1.226	0.927	0.898	0.943	0.901	0.848	0.957	14.14
78)	T	n-propylbenzene	4.342	4.610	4.716	5.064	5.018	4.903	4.775	5.75
79)	T	2-Chlorotoluene	2.993	2.935	2.845	3.027	2.895	2.818	2.919	2.81
80)	T	1,3,5-Trimethy...	2.958	3.136	3.520	3.563	3.464	3.384	3.338	7.18
81)	T	trans-1,4-Dich...		0.398	0.385	0.432	0.481	0.420	0.423	8.80
82)	T	4-Chlorotoluene	2.890	2.880	2.844	2.996	2.882	2.807	2.883	2.19
83)	T	tert-Butylbenzene	2.865	2.670	2.918	2.992	2.906	2.817	2.861	3.86
84)	T	1,2,4-Trimethy...	2.963	3.388	3.374	3.646	3.481	3.437	3.381	6.72
85)	T	sec-Butylbenzene	3.732	3.919	4.208	4.402	4.322	4.252	4.139	6.24
86)	T	p-Isopropyltol...	2.714	3.174	3.358	3.606	3.509	3.557	3.320	10.11
87)	T	1,3-Dichlorobe...	2.128	1.783	1.767	1.772	1.703	1.693	1.808	8.94
88)	T	1,4-Dichlorobe...	2.070	1.779	1.764	1.824	1.705	1.699	1.807	7.59
89)	T	n-Butylbenzene	2.889	2.800	2.919	3.107	3.202	3.349	3.044	6.90
90)	T	Hexachloroethane	0.585	0.505	0.568	0.612	0.600	0.617	0.581	7.16
91)	T	1,2-Dichlorobe...	1.886	1.762	1.750	1.736	1.638	1.633	1.734	5.38
92)	T	1,2-Dibromo-3-...	0.300	0.239	0.275	0.270	0.262	0.255	0.267	7.75
93)	T	1,2,4-Trichlor...	0.997	0.832	0.844	0.961	0.940	0.988	0.927	7.75
94)	T	Hexachlorobuta...	0.470	0.332	0.363	0.385	0.368	0.380	0.383	12.09
95)	T	Naphthalene	3.218	2.989	3.206	3.473	3.414	3.492	3.299	5.94
96)	T	1,2,3-Trichlor...	1.037	0.822	0.925	0.953	0.926	0.977	0.940	7.55

(#) = Out of Range



Response = 6.227e-001 * Amt + 1.018e-002
Coef of Det (r^2) = 0.999727 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N030524W.M
Calibration Table Last Updated: Wed Mar 06 03:12:57 2024

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081304.D
Acq On : 05 Mar 2024 12:00
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 06 03:00:19 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	340345	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	604058	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	561042	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	274713	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	490778	99.731	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 199.460%#			
35) Dibromofluoromethane	8.165	113	387144	104.609	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 209.220%#			
50) Toluene-d8	10.571	98	1453578	105.068	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 210.140%#			
62) 4-Bromofluorobenzene	12.853	95	542080	110.861	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 221.720%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.118	85	492731	109.213	ug/l	99
3) Chloromethane	2.359	50	438759	90.032	ug/l	98
4) Vinyl Chloride	2.512	62	479968	94.409	ug/l	95
5) Bromomethane	2.930	94	297561	87.635	ug/l	98
6) Chloroethane	3.106	64	322757	92.432	ug/l	98
7) Trichlorofluoromethane	3.489	101	733570	97.537	ug/l	94
8) Diethyl Ether	3.959	74	258538	97.572	ug/l	84
9) 1,1,2-Trichlorotrifluo...	4.371	101	408621	95.409	ug/l	92
10) Methyl Iodide	4.589	142	437598	111.652	ug/l	97
11) Tert butyl alcohol	5.524	59	385883	448.453	ug/l	100
12) 1,1-Dichloroethene	4.336	96	385497	97.193	ug/l	95
13) Acrolein	4.177	56	488221	479.161	ug/l	96
14) Allyl chloride	5.024	41	577357	98.086	ug/l #	89
15) Acrylonitrile	5.712	53	1060438	471.738	ug/l	97
16) Acetone	4.424	43	739581	424.184	ug/l	95
17) Carbon Disulfide	4.712	76	1086047	95.938	ug/l	97
18) Methyl Acetate	5.018	43	499398	100.042	ug/l	94
19) Methyl tert-butyl Ether	5.794	73	1303929	96.932	ug/l	95
20) Methylene Chloride	5.271	84	428015	100.168	ug/l	90
21) trans-1,2-Dichloroethene	5.783	96	412175	92.173	ug/l	96
22) Diisopropyl ether	6.671	45	1321605	101.087	ug/l #	94
23) Vinyl Acetate	6.600	43	5421765	510.473	ug/l #	94
24) 1,1-Dichloroethane	6.571	63	763201	95.363	ug/l	98
25) 2-Butanone	7.483	43	1337274	457.989	ug/l	96
26) 2,2-Dichloropropane	7.489	77	706741	99.917	ug/l	99
27) cis-1,2-Dichloroethene	7.483	96	475119	93.716	ug/l	91
28) Bromochloromethane	7.812	49	292145	85.312	ug/l #	70
29) Tetrahydrofuran	7.836	42	922634	463.387	ug/l #	88
30) Chloroform	7.965	83	803032	96.692	ug/l	98
31) Cyclohexane	8.259	56	696700	93.512	ug/l #	81
32) 1,1,1-Trichloroethane	8.171	97	730103	99.456	ug/l	93
36) 1,1-Dichloropropene	8.371	75	613199	102.703	ug/l	96
37) Ethyl Acetate	7.559	43	572158	98.031	ug/l	100
38) Carbon Tetrachloride	8.365	117	632615	105.277	ug/l	97
39) Methylcyclohexane	9.606	83	747579	108.797	ug/l	87
40) Benzene	8.606	78	1770200	99.329	ug/l	96

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081304.D
Acq On : 05 Mar 2024 12:00
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 06 03:00:19 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.777	41	324154	98.348	ug/l		97
42) 1,2-Dichloroethane	8.671	62	627300	99.831	ug/l		100
43) Isopropyl Acetate	8.688	43	988823	96.796	ug/l		97
44) Trichloroethene	9.353	130	453083	100.802	ug/l		99
45) 1,2-Dichloropropane	9.624	63	442906	98.930	ug/l		98
46) Dibromomethane	9.712	93	316837	100.404	ug/l		93
47) Bromodichloromethane	9.888	83	647394	105.679	ug/l	#	96
48) Methyl methacrylate	9.682	41	465354	103.057	ug/l		91
49) 1,4-Dioxane	9.700	88	193790	1947.120	ug/l	#	83
51) 4-Methyl-2-Pentanone	10.447	43	3017470	508.707	ug/l		96
52) Toluene	10.629	92	1127907	104.769	ug/l		99
53) t-1,3-Dichloropropene	10.835	75	730339	110.185	ug/l		97
54) cis-1,3-Dichloropropene	10.318	75	763192	106.660	ug/l		94
55) 1,1,2-Trichloroethane	11.018	97	435197	101.940	ug/l		94
56) Ethyl methacrylate	10.877	69	688952	112.387	ug/l		91
57) 1,3-Dichloropropane	11.165	76	759673	101.958	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.165	63	1717209	520.757	ug/l	#	89
59) 2-Hexanone	11.200	43	2270259	511.963	ug/l		96
60) Dibromochloromethane	11.359	129	470632	107.042	ug/l		99
61) 1,2-Dibromoethane	11.471	107	454840	102.682	ug/l		98
64) Tetrachloroethene	11.106	164	434989	99.020	ug/l		94
65) Chlorobenzene	11.894	112	1170455	99.002	ug/l		95
66) 1,1,1,2-Tetrachloroethane	11.965	131	433281	100.153	ug/l		97
67) Ethyl Benzene	11.965	91	2248262	105.570	ug/l		99
68) m/p-Xylenes	12.076	106	1690912	210.974	ug/l		98
69) o-Xylene	12.400	106	818857	105.420	ug/l		96
70) Styrene	12.412	104	1373664	111.595	ug/l		98
71) Bromoform	12.582	173	317926	105.853	ug/l	#	97
73) Isopropylbenzene	12.700	105	2184599	98.481	ug/l		99
74) N-amyl acetate	12.494	43	936623	100.628	ug/l		95
75) 1,1,2,2-Tetrachloroethane	12.941	83	614133	89.708	ug/l		99
76) 1,2,3-Trichloropropane	12.994	75	589225m	88.568	ug/l		
77) Bromobenzene	12.982	156	466070	88.614	ug/l		82
78) n-propylbenzene	13.041	91	2693570	102.661	ug/l		98
79) 2-Chlorotoluene	13.129	91	1548366	96.545	ug/l		97
80) 1,3,5-Trimethylbenzene	13.176	105	1859477	101.405	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.741	75	230500	99.140	ug/l	#	79
82) 4-Chlorotoluene	13.223	91	1542272	97.360	ug/l		95
83) tert-Butylbenzene	13.441	119	1547477	98.435	ug/l		97
84) 1,2,4-Trimethylbenzene	13.482	105	1888629	101.656	ug/l		98
85) sec-Butylbenzene	13.618	105	2336398	102.730	ug/l		95
86) p-Isopropyltoluene	13.729	119	1954452	107.158	ug/l		98
87) 1,3-Dichlorobenzene	13.735	146	930191	93.663	ug/l		97
88) 1,4-Dichlorobenzene	13.818	146	933490	94.041	ug/l		97
89) n-Butylbenzene	14.059	91	1839789	109.995	ug/l		97
90) Hexachloroethane	14.335	117	339087	106.190	ug/l		99
91) 1,2-Dichlorobenzene	14.106	146	897344	94.175	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.723	75	139855	95.466	ug/l		82
93) 1,2,4-Trichlorobenzene	15.400	180	542764	106.566	ug/l		98
94) Hexachlorobutadiene	15.500	225	209056	99.335	ug/l		97
95) Naphthalene	15.641	128	1918548	105.861	ug/l		99
96) 1,2,3-Trichlorobenzene	15.841	180	536990	103.965	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081304.D
Acq On : 05 Mar 2024 12:00
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 03:00:19 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

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

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

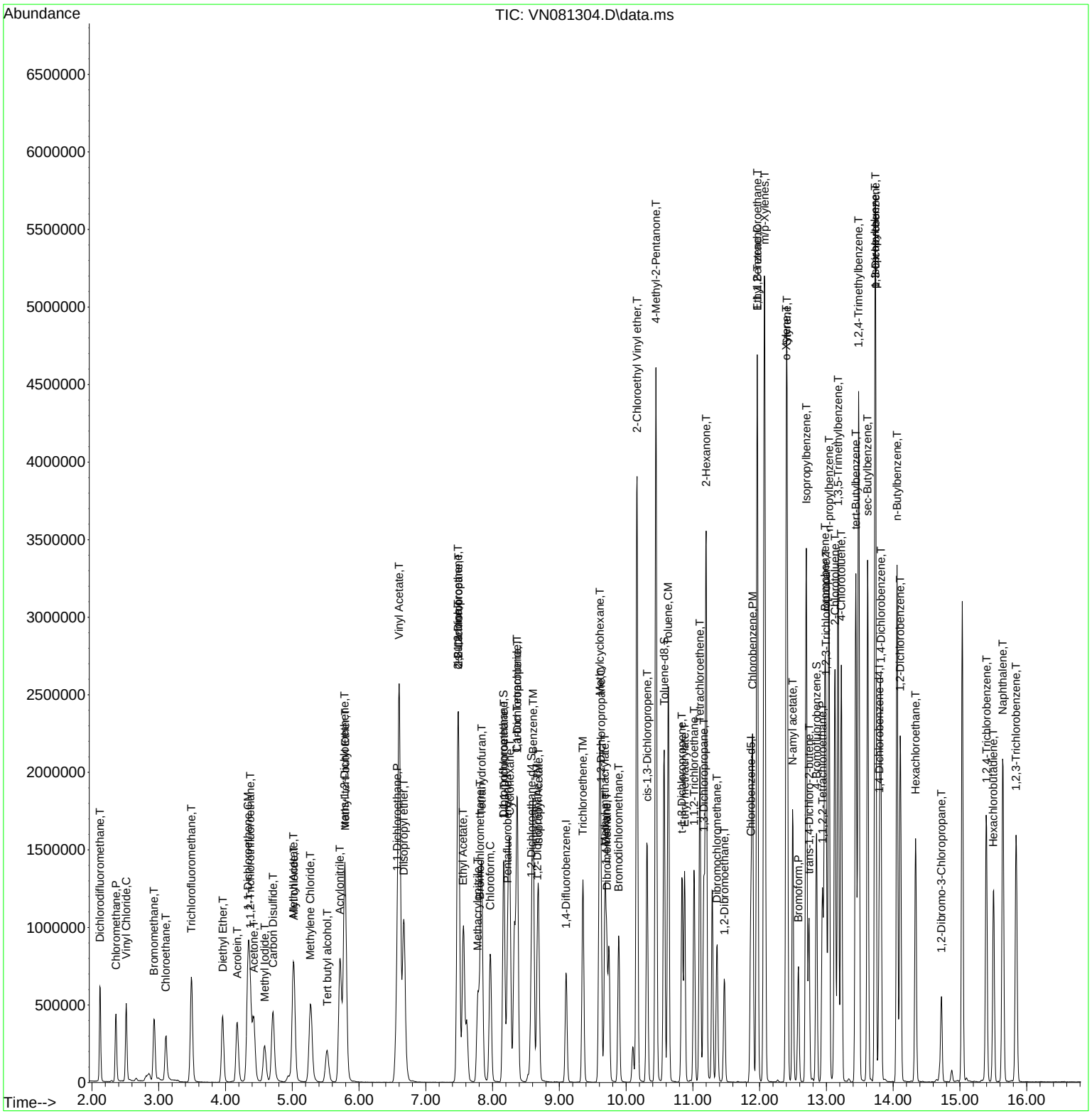
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081304.D
Acq On : 05 Mar 2024 12:00
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 06 03:00:19 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081305.D
Acq On : 05 Mar 2024 12:24
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:53:53 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	345774	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	618832	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	561947	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	252965	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	258077	51.620	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 103.240%			
35) Dibromofluoromethane	8.165	113	201480	53.142	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 106.280%			
50) Toluene-d8	10.571	98	765233	53.992	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 107.980%			
62) 4-Bromofluorobenzene	12.853	95	270863	54.072	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 108.140%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	246873	53.860	ug/l	93
3) Chloromethane	2.359	50	230235	46.502	ug/l	98
4) Vinyl Chloride	2.512	62	240196	46.505	ug/l	96
5) Bromomethane	2.948	94	159950	46.368	ug/l	94
6) Chloroethane	3.112	64	158348	44.636	ug/l	99
7) Trichlorofluoromethane	3.495	101	364631	47.721	ug/l	95
8) Diethyl Ether	3.953	74	131030	48.674	ug/l	84
9) 1,1,2-Trichlorotrifluo...	4.365	101	199972	45.958	ug/l	93
10) Methyl Iodide	4.589	142	204376	51.327	ug/l	97
11) Tert butyl alcohol	5.512	59	195438	223.561	ug/l	98
12) 1,1-Dichloroethene	4.336	96	190625	47.306	ug/l	92
13) Acrolein	4.177	56	248648	240.202	ug/l	100
14) Allyl chloride	5.024	41	276775	46.282	ug/l #	87
15) Acrylonitrile	5.712	53	530047	232.090	ug/l	96
16) Acetone	4.424	43	391759	221.164	ug/l	96
17) Carbon Disulfide	4.712	76	530733	46.147	ug/l	98
18) Methyl Acetate	5.018	43	249585	49.213	ug/l	92
19) Methyl tert-butyl Ether	5.800	73	652552	47.748	ug/l	95
20) Methylene Chloride	5.283	84	215652	49.261	ug/l	88
21) trans-1,2-Dichloroethene	5.789	96	207861	45.753	ug/l	98
22) Diisopropyl ether	6.671	45	660915	49.759	ug/l #	93
23) Vinyl Acetate	6.600	43	2677840	248.167	ug/l #	93
24) 1,1-Dichloroethane	6.565	63	381571	46.929	ug/l	95
25) 2-Butanone	7.483	43	684825	230.856	ug/l	94
26) 2,2-Dichloropropane	7.488	77	349529	48.640	ug/l	98
27) cis-1,2-Dichloroethene	7.488	96	234587	45.545	ug/l	91
28) Bromochloromethane	7.818	49	162638	46.748	ug/l #	72
29) Tetrahydrofuran	7.841	42	467101	230.915	ug/l	89
30) Chloroform	7.971	83	400293	47.442	ug/l	99
31) Cyclohexane	8.259	56	344053	45.454	ug/l #	80
32) 1,1,1-Trichloroethane	8.171	97	355466	47.662	ug/l	94
36) 1,1-Dichloropropene	8.377	75	298509	48.803	ug/l	97
37) Ethyl Acetate	7.559	43	294663	49.281	ug/l	100
38) Carbon Tetrachloride	8.365	117	310934	50.509	ug/l	94
39) Methylcyclohexane	9.600	83	356639	50.663	ug/l	94
40) Benzene	8.606	78	883871	48.412	ug/l	97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081305.D
Acq On : 05 Mar 2024 12:24
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 02:53:53 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	7.777	41	158963	47.078 ug/l		96
42) 1,2-Dichloroethane	8.671	62	315006	48.935 ug/l		99
43) Isopropyl Acetate	8.688	43	503007	48.064 ug/l		98
44) Trichloroethene	9.353	130	226833	49.261 ug/l		98
45) 1,2-Dichloropropane	9.624	63	222150	48.436 ug/l		95
46) Dibromomethane	9.712	93	160699	49.709 ug/l		92
47) Bromodichloromethane	9.888	83	311257	49.596 ug/l	#	97
48) Methyl methacrylate	9.682	41	228947	49.492 ug/l		90
49) 1,4-Dioxane	9.694	88	93743	919.404 ug/l	#	70
51) 4-Methyl-2-Pentanone	10.447	43	1504059	247.512 ug/l		96
52) Toluene	10.635	92	553542	50.190 ug/l		98
53) t-1,3-Dichloropropene	10.835	75	344842	50.784 ug/l		99
54) cis-1,3-Dichloropropene	10.312	75	369652	50.427 ug/l		96
55) 1,1,2-Trichloroethane	11.018	97	213171	48.741 ug/l		95
56) Ethyl methacrylate	10.876	69	330676	52.654 ug/l		92
57) 1,3-Dichloropropane	11.165	76	372596	48.813 ug/l		99
58) 2-Chloroethyl Vinyl ether	10.159	63	896890	265.495 ug/l	#	89
59) 2-Hexanone	11.194	43	1132527	249.297 ug/l		96
60) Dibromochloromethane	11.359	129	228187	50.660 ug/l		99
61) 1,2-Dibromoethane	11.471	107	225474	49.686 ug/l		97
64) Tetrachloroethene	11.106	164	209131	47.530 ug/l		89
65) Chlorobenzene	11.894	112	572138	48.316 ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.965	131	212432	49.025 ug/l		97
67) Ethyl Benzene	11.965	91	1075201	50.406 ug/l		98
68) m/p-Xylenes	12.070	106	805362	100.323 ug/l		99
69) o-Xylene	12.400	106	390584	50.203 ug/l		98
70) Styrene	12.412	104	652993	52.963 ug/l		97
71) Bromoform	12.582	173	152654	50.744 ug/l	#	98
73) Isopropylbenzene	12.700	105	1044804	51.149 ug/l		99
74) N-amyl acetate	12.494	43	442279	51.603 ug/l		94
75) 1,1,2,2-Tetrachloroethane	12.941	83	294259	46.678 ug/l		99
76) 1,2,3-Trichloropropane	13.000	75	281477m	45.947 ug/l		
77) Bromobenzene	12.982	156	227939	47.064 ug/l		79
78) n-propylbenzene	13.035	91	1269446	52.542 ug/l		97
79) 2-Chlorotoluene	13.129	91	732435	49.596 ug/l		95
80) 1,3,5-Trimethylbenzene	13.176	105	876215	51.892 ug/l		99
81) trans-1,4-Dichloro-2-b...	12.741	75	121721	56.854 ug/l		99
82) 4-Chlorotoluene	13.223	91	729122	49.985 ug/l		95
83) tert-Butylbenzene	13.441	119	735217	50.788 ug/l		97
84) 1,2,4-Trimethylbenzene	13.482	105	880540	51.470 ug/l		97
85) sec-Butylbenzene	13.617	105	1093407	52.210 ug/l		94
86) p-Isopropyltoluene	13.729	119	887629	52.851 ug/l		97
87) 1,3-Dichlorobenzene	13.735	146	430703	47.097 ug/l		96
88) 1,4-Dichlorobenzene	13.812	146	431296	47.185 ug/l		97
89) n-Butylbenzene	14.059	91	810020	52.592 ug/l		97
90) Hexachloroethane	14.335	117	151855	51.644 ug/l		100
91) 1,2-Dichlorobenzene	14.106	146	414373	47.226 ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.717	75	66215	49.084 ug/l		84
93) 1,2,4-Trichlorobenzene	15.394	180	237878	50.720 ug/l		99
94) Hexachlorobutadiene	15.500	225	93091	48.036 ug/l		97
95) Naphthalene	15.641	128	863594	51.748 ug/l		99
96) 1,2,3-Trichlorobenzene	15.841	180	234345	49.272 ug/l		97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081305.D
Acq On : 05 Mar 2024 12:24
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:53:53 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

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

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

ICAL Form

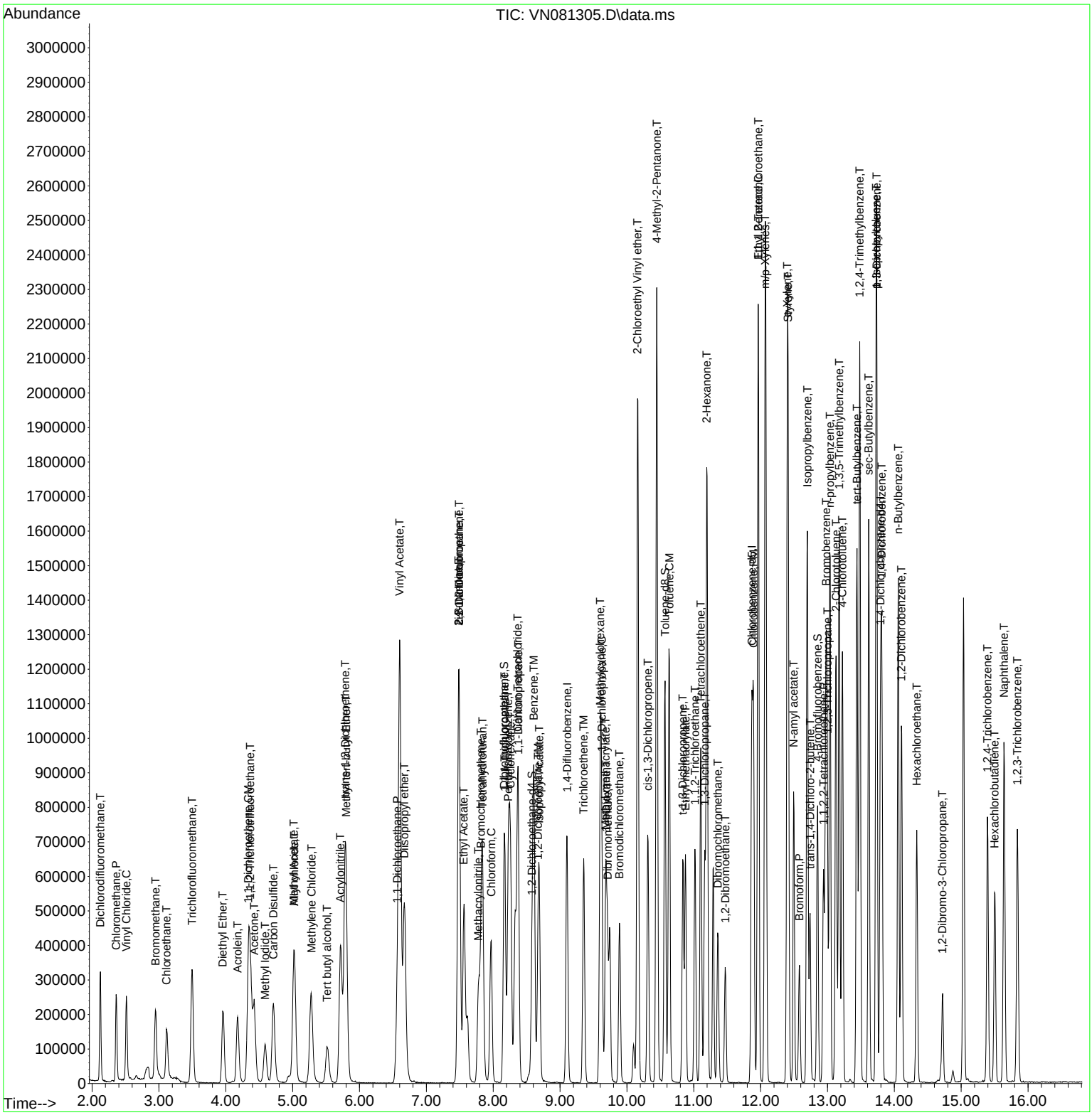
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081305.D
Acq On : 05 Mar 2024 12:24
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 02:53:53 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081306.D
Acq On : 05 Mar 2024 12:48
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:54:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	332864	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	606156	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	543516	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	247423	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	97732	20.306	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	40.620%#		
35) Dibromofluoromethane	8.171	113	74813	20.145	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	40.300%#		
50) Toluene-d8	10.571	98	285313	20.552	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	41.100%#		
62) 4-Bromofluorobenzene	12.847	95	99474	20.273	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery =	40.540%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	81317	18.429	ug/l	97
3) Chloromethane	2.359	50	89593	18.797	ug/l	95
4) Vinyl Chloride	2.512	62	96389	19.386	ug/l	90
5) Bromomethane	2.942	94	66168	19.925	ug/l	88
6) Chloroethane	3.112	64	64649	18.930	ug/l	99
7) Trichlorofluoromethane	3.495	101	147528	20.057	ug/l	94
8) Diethyl Ether	3.959	74	53838	20.775	ug/l	84
9) 1,1,2-Trichlorotrifluo...	4.371	101	83172	19.856	ug/l	91
10) Methyl Iodide	4.594	142	77361	20.182	ug/l	98
11) Tert butyl alcohol	5.518	59	85638	101.761	ug/l	98
12) 1,1-Dichloroethene	4.336	96	76920	19.829	ug/l	95
13) Acrolein	4.183	56	98953	99.299	ug/l	99
14) Allyl chloride	5.024	41	115321	20.032	ug/l #	90
15) Acrylonitrile	5.718	53	227846	103.636	ug/l	99
16) Acetone	4.430	43	167890	98.457	ug/l	94
17) Carbon Disulfide	4.706	76	217997	19.690	ug/l	98
18) Methyl Acetate	5.024	43	90086	18.452	ug/l	91
19) Methyl tert-butyl Ether	5.800	73	267502	20.333	ug/l	95
20) Methylene Chloride	5.277	84	91015	21.133	ug/l #	82
21) trans-1,2-Dichloroethene	5.789	96	85981	19.660	ug/l	93
22) Diisopropyl ether	6.671	45	275069	21.512	ug/l #	90
23) Vinyl Acetate	6.606	43	1130695	108.850	ug/l #	95
24) 1,1-Dichloroethane	6.565	63	158935	20.306	ug/l	97
25) 2-Butanone	7.488	43	292480	102.420	ug/l	92
26) 2,2-Dichloropropane	7.488	77	140507	20.311	ug/l	98
27) cis-1,2-Dichloroethene	7.488	96	97971	19.759	ug/l	91
28) Bromochloromethane	7.812	49	60619	18.100	ug/l #	64
29) Tetrahydrofuran	7.841	42	199578	102.490	ug/l #	88
30) Chloroform	7.971	83	167237	20.589	ug/l	97
31) Cyclohexane	8.259	56	145653	19.989	ug/l #	84
32) 1,1,1-Trichloroethane	8.171	97	149705	20.851	ug/l	93
36) 1,1-Dichloropropene	8.371	75	123271	20.575	ug/l	96
37) Ethyl Acetate	7.559	43	122019	20.834	ug/l	97
38) Carbon Tetrachloride	8.359	117	127137	21.084	ug/l	96
39) Methylcyclohexane	9.600	83	140191	20.332	ug/l	88
40) Benzene	8.606	78	364394	20.376	ug/l	96

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081306.D
Acq On : 05 Mar 2024 12:48
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 06 02:54:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.782	41	63989	19.347	ug/l		93
42) 1,2-Dichloroethane	8.671	62	131358	20.833	ug/l		100
43) Isopropyl Acetate	8.688	43	204552	19.954	ug/l		96
44) Trichloroethene	9.353	130	94315	20.911	ug/l		100
45) 1,2-Dichloropropane	9.624	63	94215	20.972	ug/l		99
46) Dibromomethane	9.712	93	66215	20.911	ug/l		93
47) Bromodichloromethane	9.888	83	128398	20.887	ug/l	#	95
48) Methyl methacrylate	9.682	41	92529	20.420	ug/l		90
49) 1,4-Dioxane	9.694	88	40122	401.734	ug/l		93
51) 4-Methyl-2-Pentanone	10.447	43	630936	106.000	ug/l		96
52) Toluene	10.629	92	227698	21.077	ug/l		97
53) t-1,3-Dichloropropene	10.835	75	136902	20.583	ug/l		98
54) cis-1,3-Dichloropropene	10.318	75	152827	21.284	ug/l		98
55) 1,1,2-Trichloroethane	11.018	97	87163	20.346	ug/l		98
56) Ethyl methacrylate	10.876	69	131093	21.311	ug/l		92
57) 1,3-Dichloropropane	11.165	76	153470	20.526	ug/l		98
58) 2-Chloroethyl Vinyl ether	10.165	63	345949	104.549	ug/l	#	90
59) 2-Hexanone	11.200	43	480453	107.971	ug/l		97
60) Dibromochloromethane	11.365	129	92942	21.066	ug/l		97
61) 1,2-Dibromoethane	11.470	107	93643	21.067	ug/l		98
64) Tetrachloroethene	11.106	164	87726	20.614	ug/l		90
65) Chlorobenzene	11.894	112	242605	21.182	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.959	131	87932	20.981	ug/l		98
67) Ethyl Benzene	11.965	91	428845	20.786	ug/l		96
68) m/p-Xylenes	12.076	106	328566	42.317	ug/l		98
69) o-Xylene	12.400	106	157724	20.960	ug/l		99
70) Styrene	12.412	104	260010	21.804	ug/l		97
71) Bromoform	12.582	173	59021	20.285	ug/l	#	96
73) Isopropylbenzene	12.700	105	419991	21.021	ug/l		98
74) N-amyl acetate	12.494	43	175053	20.882	ug/l		93
75) 1,1,2,2-Tetrachloroethane	12.941	83	124828	20.245	ug/l		98
76) 1,2,3-Trichloropropane	12.994	75	120193m	20.059	ug/l		
77) Bromobenzene	12.982	156	93374	19.711	ug/l		81
78) n-propylbenzene	13.035	91	501181	21.208	ug/l		98
79) 2-Chlorotoluene	13.129	91	299620	20.743	ug/l		94
80) 1,3,5-Trimethylbenzene	13.176	105	352629	21.351	ug/l		95
81) trans-1,4-Dichloro-2-b...	12.741	75	42773	20.426	ug/l	#	86
82) 4-Chlorotoluene	13.223	91	296464	20.779	ug/l		97
83) tert-Butylbenzene	13.441	119	296113	20.913	ug/l		97
84) 1,2,4-Trimethylbenzene	13.482	105	360827	21.564	ug/l		98
85) sec-Butylbenzene	13.617	105	435655	21.268	ug/l		95
86) p-Isopropyltoluene	13.729	119	356855	21.724	ug/l		99
87) 1,3-Dichlorobenzene	13.735	146	175334	19.602	ug/l		97
88) 1,4-Dichlorobenzene	13.812	146	180499	20.189	ug/l		98
89) n-Butylbenzene	14.059	91	307465	20.410	ug/l		97
90) Hexachloroethane	14.335	117	60537	21.049	ug/l		96
91) 1,2-Dichlorobenzene	14.106	146	171822	20.021	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.717	75	26736	20.263	ug/l		82
93) 1,2,4-Trichlorobenzene	15.394	180	95095	20.730	ug/l		98
94) Hexachlorobutadiene	15.506	225	38075	20.087	ug/l		95
95) Naphthalene	15.641	128	343718	21.057	ug/l		99
96) 1,2,3-Trichlorobenzene	15.841	180	94271	20.265	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081306.D
Acq On : 05 Mar 2024 12:48
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:54:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

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

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

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
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Acq On : 05 Mar 2024 12:48
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

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Quant Title : SW846 8260
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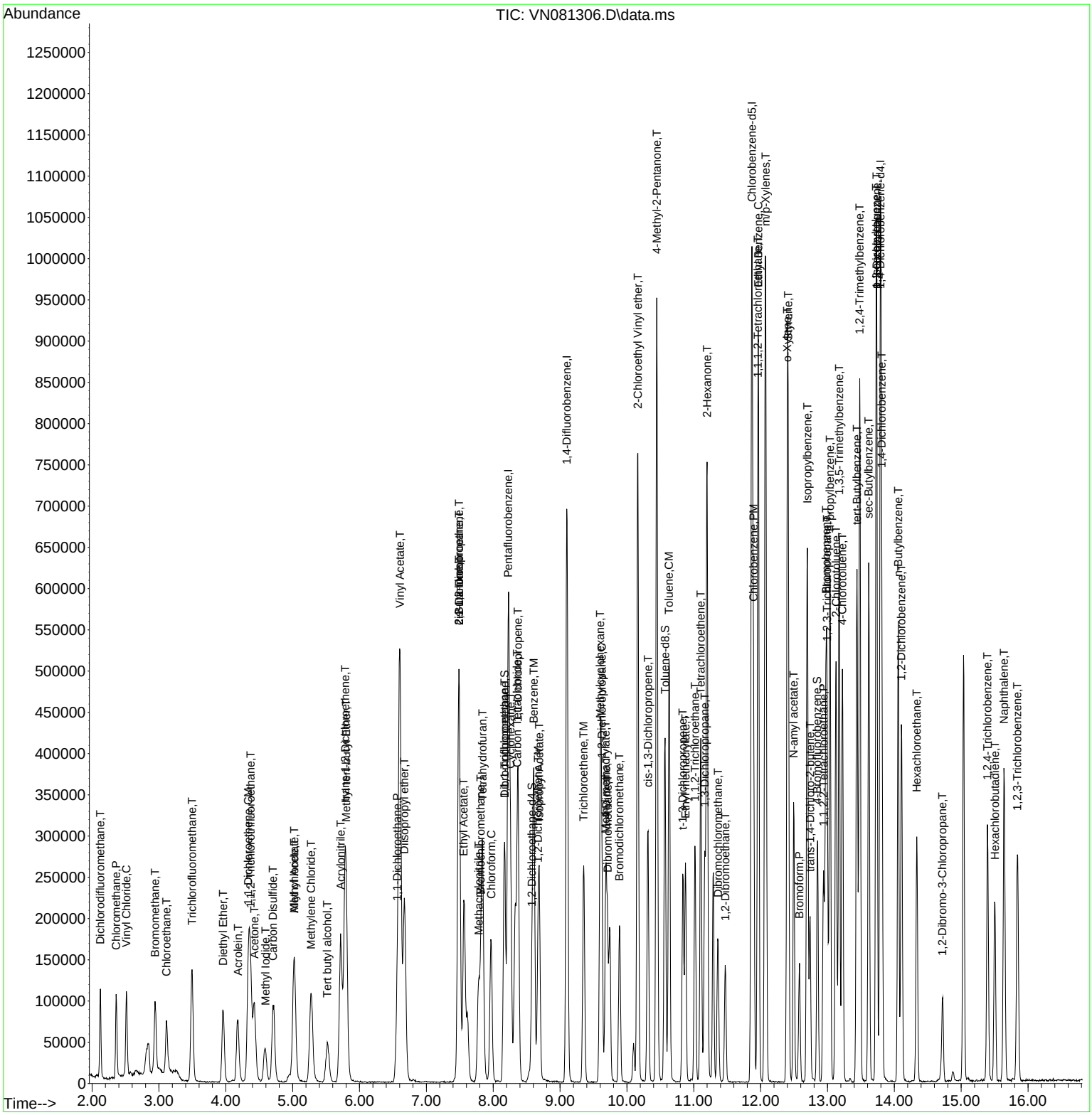
Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024



ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081307.D
Acq On : 05 Mar 2024 13:12
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 06 02:55:39 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	327237	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	602889	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	537074	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	227932	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	46772	9.885	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	19.780%#		
35) Dibromofluoromethane	8.171	113	34849	9.435	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	18.860%#		
50) Toluene-d8	10.571	98	126484	9.160	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	18.320%#		
62) 4-Bromofluorobenzene	12.853	95	44333	9.084	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery =	18.160%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	48904	11.274	ug/l	96
3) Chloromethane	2.359	50	46999	10.030	ug/l	97
4) Vinyl Chloride	2.512	62	49376	10.101	ug/l	93
5) Bromomethane	2.965	94	33315	10.205	ug/l	85
6) Chloroethane	3.124	64	30729	9.153	ug/l	93
7) Trichlorofluoromethane	3.495	101	73363	10.145	ug/l	87
8) Diethyl Ether	3.965	74	25765	10.113	ug/l	80
9) 1,1,2-Trichlorotrifluo...	4.371	101	41542	10.088	ug/l	95
10) Methyl Iodide	4.589	142	33969	9.014	ug/l #	93
11) Tert butyl alcohol	5.524	59	43245	52.270	ug/l #	75
12) 1,1-Dichloroethene	4.342	96	37558	9.849	ug/l #	79
13) Acrolein	4.177	56	49715	50.747	ug/l	95
14) Allyl chloride	5.018	41	54675	9.661	ug/l #	91
15) Acrylonitrile	5.718	53	105508	48.816	ug/l	95
16) Acetone	4.430	43	88513	52.800	ug/l	97
17) Carbon Disulfide	4.712	76	104857	9.634	ug/l #	93
18) Methyl Acetate	5.024	43	52153	10.866	ug/l #	86
19) Methyl tert-butyl Ether	5.795	73	126051	9.746	ug/l	99
20) Methylene Chloride	5.283	84	43580m	9.870	ug/l	
21) trans-1,2-Dichloroethene	5.777	96	41572	9.669	ug/l #	76
22) Diisopropyl ether	6.671	45	125899	10.016	ug/l	95
23) Vinyl Acetate	6.606	43	499014	48.865	ug/l #	92
24) 1,1-Dichloroethane	6.571	63	76373	9.925	ug/l #	94
25) 2-Butanone	7.489	43	144915	51.618	ug/l	94
26) 2,2-Dichloropropane	7.494	77	63603	9.352	ug/l	100
27) cis-1,2-Dichloroethene	7.489	96	47033	9.649	ug/l	90
28) Bromochloromethane	7.812	49	32612	9.905	ug/l #	71
29) Tetrahydrofuran	7.841	42	97686	51.027	ug/l	90
30) Chloroform	7.965	83	78508	9.832	ug/l	95
31) Cyclohexane	8.253	56	71690	10.008	ug/l #	94
32) 1,1,1-Trichloroethane	8.171	97	69887	9.901	ug/l	89
36) 1,1-Dichloropropene	8.371	75	58236	9.773	ug/l	97
37) Ethyl Acetate	7.559	43	58703	10.077	ug/l	97
38) Carbon Tetrachloride	8.359	117	58542	9.761	ug/l	93
39) Methylcyclohexane	9.606	83	66325	9.671	ug/l	87
40) Benzene	8.612	78	176601	9.929	ug/l	94

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081307.D
Acq On : 05 Mar 2024 13:12
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 06 02:55:39 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.783	41	31259	9.502	ug/l		97
42) 1,2-Dichloroethane	8.671	62	61231	9.763	ug/l		100
43) Isopropyl Acetate	8.694	43	97615	9.574	ug/l		98
44) Trichloroethene	9.359	130	42507	9.475	ug/l		94
45) 1,2-Dichloropropane	9.624	63	43924	9.830	ug/l		95
46) Dibromomethane	9.712	93	31494	10.000	ug/l		91
47) Bromodichloromethane	9.894	83	59920	9.800	ug/l	#	93
48) Methyl methacrylate	9.683	41	43798	9.718	ug/l		90
49) 1,4-Dioxane	9.694	88	20455	205.922	ug/l	#	83
51) 4-Methyl-2-Pentanone	10.447	43	299862	50.651	ug/l		97
52) Toluene	10.630	92	105003	9.772	ug/l		99
53) t-1,3-Dichloropropene	10.841	75	63310	9.570	ug/l		99
54) cis-1,3-Dichloropropene	10.312	75	67537	9.457	ug/l		95
55) 1,1,2-Trichloroethane	11.018	97	42154	9.893	ug/l		95
56) Ethyl methacrylate	10.877	69	58563	9.572	ug/l		93
57) 1,3-Dichloropropane	11.165	76	70690	9.506	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.165	63	163432	49.658	ug/l	#	88
59) 2-Hexanone	11.194	43	221774	50.109	ug/l		95
60) Dibromochloromethane	11.365	129	42335	9.647	ug/l		99
61) 1,2-Dibromoethane	11.471	107	44075	9.969	ug/l		98
64) Tetrachloroethene	11.106	164	42217	10.039	ug/l		97
65) Chlorobenzene	11.894	112	110903	9.799	ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.965	131	40618	9.808	ug/l		96
67) Ethyl Benzene	11.965	91	193595	9.496	ug/l		99
68) m/p-Xylenes	12.076	106	148393	19.341	ug/l		97
69) o-Xylene	12.400	106	72666	9.773	ug/l		91
70) Styrene	12.412	104	114378	9.707	ug/l		97
71) Bromoform	12.582	173	26271	9.137	ug/l	#	97
73) Isopropylbenzene	12.694	105	186937	10.157	ug/l		99
74) N-amyl acetate	12.494	43	78058	10.108	ug/l		93
75) 1,1,2,2-Tetrachloroethane	12.941	83	59006	10.388	ug/l		94
76) 1,2,3-Trichloropropane	13.000	75	53422m	9.678	ug/l		
77) Bromobenzene	12.982	156	40942	9.382	ug/l		81
78) n-propylbenzene	13.035	91	214969	9.875	ug/l		97
79) 2-Chlorotoluene	13.129	91	129707	9.748	ug/l		92
80) 1,3,5-Trimethylbenzene	13.176	105	160469	10.547	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.735	75	17563	9.104	ug/l		84
82) 4-Chlorotoluene	13.223	91	129645	9.864	ug/l		97
83) tert-Butylbenzene	13.441	119	133019	10.198	ug/l		94
84) 1,2,4-Trimethylbenzene	13.482	105	153803	9.978	ug/l		99
85) sec-Butylbenzene	13.618	105	191848	10.167	ug/l		97
86) p-Isopropyltoluene	13.735	119	153094	10.117	ug/l		97
87) 1,3-Dichlorobenzene	13.735	146	80564	9.777	ug/l		95
88) 1,4-Dichlorobenzene	13.812	146	80394	9.761	ug/l		100
89) n-Butylbenzene	14.059	91	133067	9.588	ug/l		97
90) Hexachloroethane	14.335	117	25901	9.776	ug/l		100
91) 1,2-Dichlorobenzene	14.106	146	79762	10.089	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.723	75	12543	10.319	ug/l		90
93) 1,2,4-Trichlorobenzene	15.400	180	38467	9.103	ug/l		93
94) Hexachlorobutadiene	15.506	225	16553	9.480	ug/l		98
95) Naphthalene	15.641	128	146128	9.718	ug/l		99
96) 1,2,3-Trichlorobenzene	15.841	180	42163	9.838	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081307.D
Acq On : 05 Mar 2024 13:12
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:55:39 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

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

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

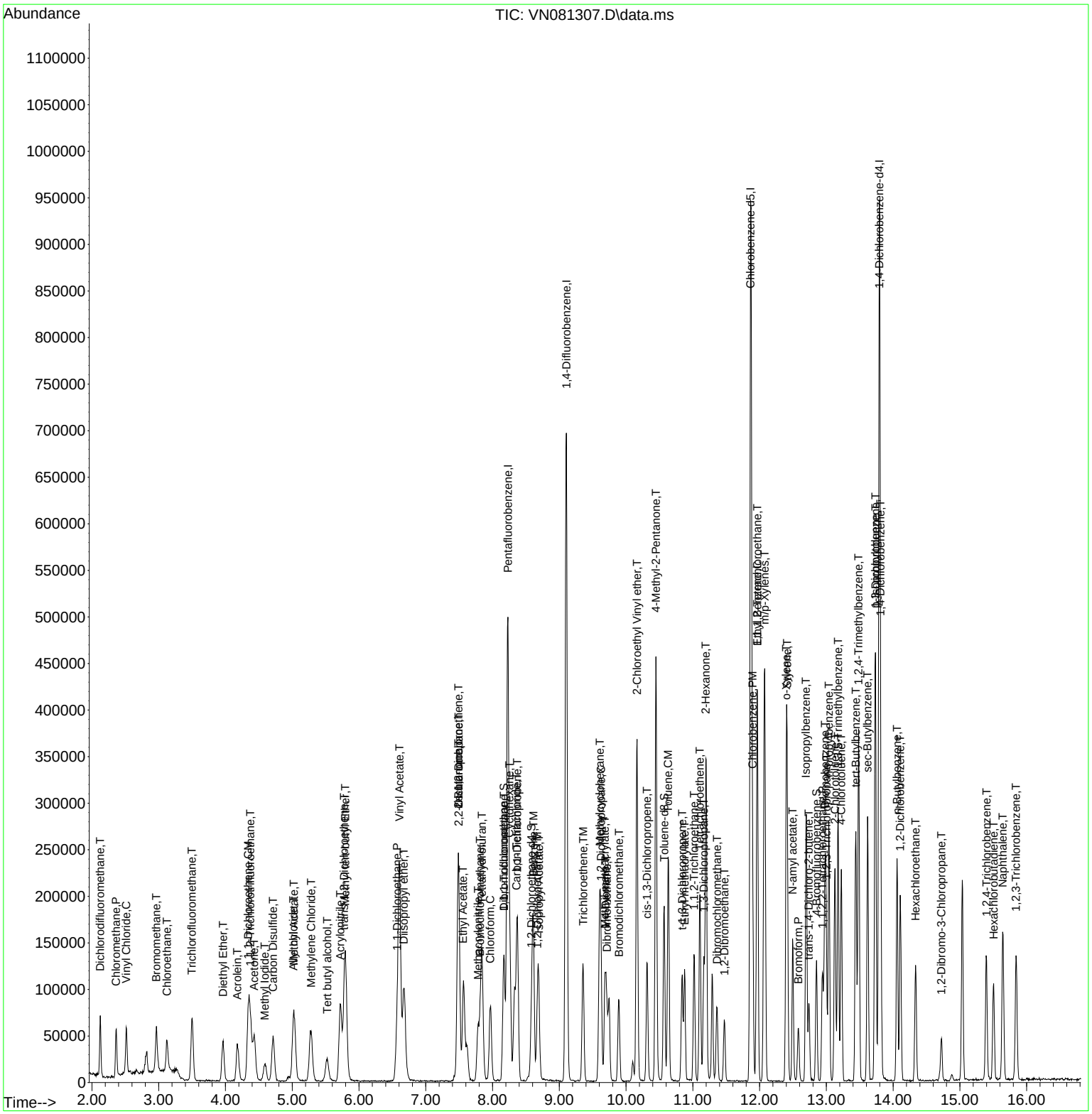
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081307.D
Acq On : 05 Mar 2024 13:12
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 06 02:55:39 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081308.D
Acq On : 05 Mar 2024 13:36
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:56:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.224	168	322268	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.106	114	596644	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.870	117	533278	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	230211	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.577	65	22516	4.832	ug/l		0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	9.660%#			
35) Dibromofluoromethane	8.165	113	17187	4.702	ug/l		0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	9.400%#			
50) Toluene-d8	10.571	98	63260	4.629	ug/l		0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	9.260%#			
62) 4-Bromofluorobenzene	12.853	95	21441	4.439	ug/l		0.00
Spiked Amount 50.000	Range 64 - 133		Recovery =	8.880%#			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.124	85	19679	4.607	ug/l		99
3) Chloromethane	2.359	50	22864	4.955	ug/l		95
4) Vinyl Chloride	2.518	62	23583	4.899	ug/l		93
5) Bromomethane	2.948	94	18962	5.898	ug/l		99
6) Chloroethane	3.112	64	18744	5.669	ug/l	#	88
7) Trichlorofluoromethane	3.495	101	36048	5.062	ug/l		88
8) Diethyl Ether	3.965	74	12598	5.021	ug/l	#	45
9) 1,1,2-Trichlorotrifluo...	4.371	101	20537	5.064	ug/l		91
10) Methyl Iodide	4.594	142	17561	4.732	ug/l	#	90
11) Tert butyl alcohol	5.512	59	23340	28.646	ug/l		99
12) 1,1-Dichloroethene	4.330	96	19345	5.151	ug/l	#	77
13) Acrolein	4.171	56	25879	26.823	ug/l		95
14) Allyl chloride	5.024	41	27842	4.995	ug/l		93
15) Acrylonitrile	5.718	53	55076	25.875	ug/l		98
16) Acetone	4.430	43	42649	25.833	ug/l		93
17) Carbon Disulfide	4.712	76	54493	5.084	ug/l		97
18) Methyl Acetate	5.024	43	22875	4.839	ug/l		95
19) Methyl tert-butyl Ether	5.794	73	63140	4.957	ug/l		96
20) Methylene Chloride	5.283	84	22314	4.736	ug/l		97
21) trans-1,2-Dichloroethene	5.783	96	21423	5.059	ug/l		86
22) Diisopropyl ether	6.677	45	62918	5.082	ug/l	#	88
23) Vinyl Acetate	6.606	43	249743	24.833	ug/l	#	91
24) 1,1-Dichloroethane	6.559	63	38454m	5.074	ug/l		
25) 2-Butanone	7.483	43	69013	24.961	ug/l		98
26) 2,2-Dichloropropane	7.494	77	30818	4.601	ug/l		98
27) cis-1,2-Dichloroethene	7.488	96	25583	5.329	ug/l		81
28) Bromochloromethane	7.818	49	19111	5.894	ug/l	#	75
29) Tetrahydrofuran	7.841	42	47567	25.230	ug/l	#	84
30) Chloroform	7.965	83	40107	5.100	ug/l		99
31) Cyclohexane	8.259	56	40760	5.778	ug/l		98
32) 1,1,1-Trichloroethane	8.171	97	34986	5.033	ug/l	#	74
36) 1,1-Dichloropropene	8.371	75	28329	4.804	ug/l		98
37) Ethyl Acetate	7.559	43	25384	4.403	ug/l	#	95
38) Carbon Tetrachloride	8.365	117	28754	4.845	ug/l		96
39) Methylcyclohexane	9.600	83	31993	4.714	ug/l	#	84
40) Benzene	8.606	78	88769	5.043	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081308.D
Acq On : 05 Mar 2024 13:36
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:56:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.782	41	17234	5.294	ug/l		96
42) 1,2-Dichloroethane	8.671	62	30917	4.981	ug/l		94
43) Isopropyl Acetate	8.694	43	50967	5.051	ug/l		98
44) Trichloroethene	9.353	130	20476	4.612	ug/l		100
45) 1,2-Dichloropropane	9.624	63	23032	5.209	ug/l		97
46) Dibromomethane	9.706	93	15233	4.887	ug/l	#	88
47) Bromodichloromethane	9.888	83	28885	4.774	ug/l	#	96
48) Methyl methacrylate	9.682	41	22473	5.039	ug/l		95
49) 1,4-Dioxane	9.700	88	10534	107.156	ug/l		86
51) 4-Methyl-2-Pentanone	10.447	43	149551	25.526	ug/l		98
52) Toluene	10.635	92	52870	4.972	ug/l		97
53) t-1,3-Dichloropropene	10.835	75	30644	4.681	ug/l	#	81
54) cis-1,3-Dichloropropene	10.312	75	34686	4.908	ug/l		91
55) 1,1,2-Trichloroethane	11.018	97	22807	5.409	ug/l	#	82
56) Ethyl methacrylate	10.876	69	28610	4.725	ug/l		89
57) 1,3-Dichloropropane	11.165	76	37018	5.030	ug/l		98
58) 2-Chloroethyl Vinyl ether	10.165	63	80833	24.818	ug/l		93
59) 2-Hexanone	11.200	43	108307	24.728	ug/l		98
60) Dibromochloromethane	11.359	129	20740	4.776	ug/l		94
61) 1,2-Dibromoethane	11.476	107	21764	4.974	ug/l		96
64) Tetrachloroethene	11.112	164	20779	4.976	ug/l	#	85
65) Chlorobenzene	11.894	112	55617	4.949	ug/l		91
66) 1,1,1,2-Tetrachloroethane	11.959	131	20548	4.997	ug/l		96
67) Ethyl Benzene	11.965	91	98479	4.865	ug/l		92
68) m/p-Xylenes	12.070	106	71907	9.439	ug/l		100
69) o-Xylene	12.400	106	35005	4.741	ug/l		97
70) Styrene	12.417	104	54080	4.622	ug/l		97
71) Bromoform	12.576	173	13560	4.750	ug/l	#	99
73) Isopropylbenzene	12.700	105	89749	4.828	ug/l		93
74) N-amyl acetate	12.494	43	38169	4.894	ug/l		94
75) 1,1,2,2-Tetrachloroethane	12.941	83	27891	4.862	ug/l		98
76) 1,2,3-Trichloropropane	13.000	75	28218m	5.061	ug/l		
77) Bromobenzene	12.982	156	21346	4.843	ug/l		82
78) n-propylbenzene	13.041	91	106134	4.827	ug/l		97
79) 2-Chlorotoluene	13.129	91	67567	5.027	ug/l		94
80) 1,3,5-Trimethylbenzene	13.176	105	72188	4.698	ug/l		92
81) trans-1,4-Dichloro-2-b...	12.735	75	9155	4.699	ug/l	#	73
82) 4-Chlorotoluene	13.223	91	66298	4.994	ug/l		99
83) tert-Butylbenzene	13.441	119	61467	4.666	ug/l		98
84) 1,2,4-Trimethylbenzene	13.482	105	77985	5.009	ug/l		99
85) sec-Butylbenzene	13.617	105	90220	4.734	ug/l		97
86) p-Isopropyltoluene	13.729	119	73059	4.780	ug/l		97
87) 1,3-Dichlorobenzene	13.735	146	41038	4.931	ug/l		92
88) 1,4-Dichlorobenzene	13.812	146	40960	4.924	ug/l		95
89) n-Butylbenzene	14.059	91	64465	4.599	ug/l		97
90) Hexachloroethane	14.335	117	11615	4.341	ug/l		88
91) 1,2-Dichlorobenzene	14.106	146	40568	5.081	ug/l		95
92) 1,2-Dibromo-3-Chloropr...	14.723	75	5492	4.474	ug/l	#	57
93) 1,2,4-Trichlorobenzene	15.394	180	19161	4.489	ug/l		97
94) Hexachlorobutadiene	15.500	225	7649	4.337	ug/l		91
95) Naphthalene	15.641	128	68817	4.531	ug/l		97
96) 1,2,3-Trichlorobenzene	15.847	180	18933	4.374	ug/l		91

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081308.D
Acq On : 05 Mar 2024 13:36
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:56:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

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

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

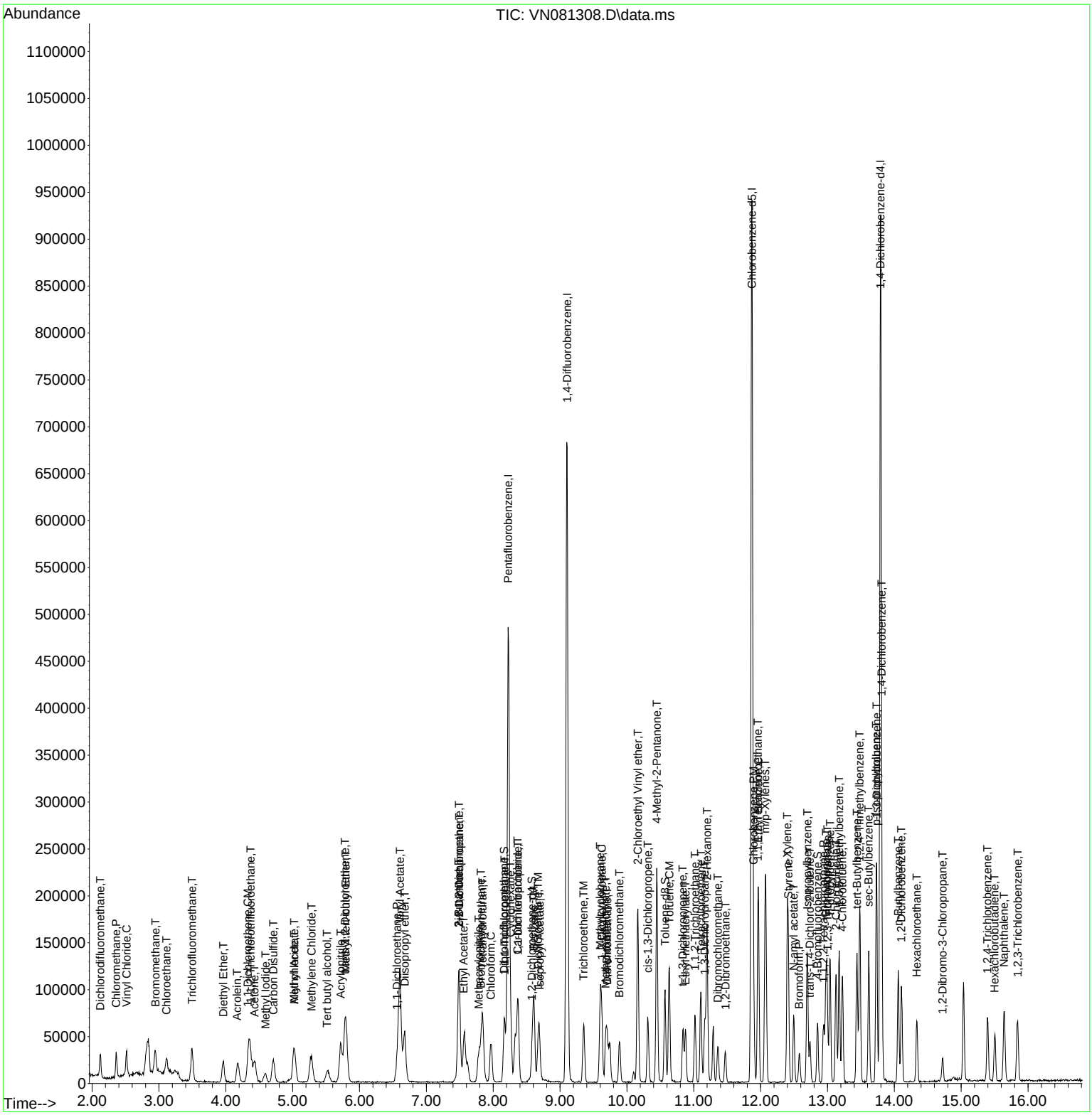
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081308.D
Acq On : 05 Mar 2024 13:36
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 06 02:56:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081309.D
Acq On : 05 Mar 2024 13:59
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 02:57:23 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.224	168	304713	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.106	114	582371	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.870	117	498404	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	199387	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 64 - 133		Recovery =	0.000%#			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.130	85	3476	0.861	ug/l		98
3) Chloromethane	2.365	50	5392	1.236	ug/l		89
4) Vinyl Chloride	2.512	62	5310	1.167	ug/l		100
6) Chloroethane	3.118	64	3712	1.187	ug/l		98
7) Trichlorofluoromethane	3.494	101	7006	1.040	ug/l		87
8) Diethyl Ether	3.977	74	2364	0.996	ug/l		90
9) 1,1,2-Trichlorotrifluo...	4.383	101	4265	1.112	ug/l		95
12) 1,1-Dichloroethene	4.347	96	3819	1.075	ug/l	#	68
14) Allyl chloride	5.036	41	5938m	1.127	ug/l		
15) Acrylonitrile	5.736	53	10873	5.402	ug/l		94
16) Acetone	4.430	43	9312	5.965	ug/l	#	86
17) Carbon Disulfide	4.718	76	11686	1.153	ug/l	#	87
18) Methyl Acetate	5.047	43	4640m	1.038	ug/l		
19) Methyl tert-butyl Ether	5.800	73	13165	1.093	ug/l		98
20) Methylene Chloride	5.277	84	6181	0.804	ug/l	#	76
21) trans-1,2-Dichloroethene	5.794	96	4810	1.201	ug/l		94
22) Diisopropyl ether	6.677	45	10538	0.900	ug/l	#	87
23) Vinyl Acetate	6.612	43	44087	4.636	ug/l	#	92
24) 1,1-Dichloroethane	6.565	63	7775m	1.085	ug/l		
25) 2-Butanone	7.488	43	14451	5.528	ug/l		100
26) 2,2-Dichloropropane	7.488	77	7327	1.157	ug/l		88
27) cis-1,2-Dichloroethene	7.477	96	5144	1.133	ug/l		79
28) Bromochloromethane	7.824	49	3488	1.138	ug/l	#	81
29) Tetrahydrofuran	7.853	42	9759	5.475	ug/l	#	91
30) Chloroform	7.965	83	7819	1.052	ug/l	#	78
32) 1,1,1-Trichloroethane	8.165	97	6657	1.013	ug/l	#	49
36) 1,1-Dichloropropene	8.365	75	5930	1.030	ug/l		93
37) Ethyl Acetate	7.559	43	6212	1.104	ug/l	#	95
38) Carbon Tetrachloride	8.359	117	5433	0.938	ug/l	#	80
39) Methylcyclohexane	9.606	83	6441	0.972	ug/l	#	66
40) Benzene	8.612	78	17495	1.018	ug/l		92
41) Methacrylonitrile	7.771	41	3491	1.099	ug/l		91
42) 1,2-Dichloroethane	8.671	62	6111	1.009	ug/l		100
43) Isopropyl Acetate	8.694	43	10887	1.105	ug/l		95
44) Trichloroethene	9.353	130	4729	1.091	ug/l		81
45) 1,2-Dichloropropane	9.624	63	4181	0.969	ug/l	#	85

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081309.D
Acq On : 05 Mar 2024 13:59
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 06 02:57:23 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Dibromomethane	9.706	93	2978	0.979	ug/l		89
47) Bromodichloromethane	9.894	83	5742	0.972	ug/l	#	81
48) Methyl methacrylate	9.688	41	4262	0.979	ug/l	#	84
49) 1,4-Dioxane	9.706	88	1922	20.031	ug/l	#	73
51) 4-Methyl-2-Pentanone	10.447	43	25691	4.492	ug/l		97
52) Toluene	10.635	92	9580	0.923	ug/l		95
53) t-1,3-Dichloropropene	10.835	75	6136	0.960	ug/l		97
54) cis-1,3-Dichloropropene	10.312	75	6439	0.933	ug/l		92
55) 1,1,2-Trichloroethane	11.018	97	3776	0.917	ug/l	#	81
56) Ethyl methacrylate	10.876	69	5055	0.855	ug/l	#	84
57) 1,3-Dichloropropane	11.165	76	7336	1.021	ug/l		90
58) 2-Chloroethyl Vinyl ether	10.165	63	13752	4.326	ug/l		90
59) 2-Hexanone	11.194	43	19407	4.539	ug/l		96
60) Dibromochloromethane	11.359	129	3998	0.943	ug/l		84
61) 1,2-Dibromoethane	11.470	107	3990	0.934	ug/l		98
64) Tetrachloroethene	11.106	164	4017	1.029	ug/l	#	80
65) Chlorobenzene	11.900	112	10658	1.015	ug/l		89
66) 1,1,1,2-Tetrachloroethane	11.959	131	3800	0.989	ug/l	#	61
67) Ethyl Benzene	11.965	91	18432	0.974	ug/l		95
68) m/p-Xylenes	12.076	106	13856	1.946	ug/l		83
69) o-Xylene	12.406	106	6681	0.968	ug/l		90
70) Styrene	12.412	104	9180	0.839	ug/l		95
71) Bromoform	12.582	173	2798	1.049	ug/l	#	94
73) Isopropylbenzene	12.694	105	15455	0.960	ug/l		99
74) N-amyl acetate	12.500	43	6270	0.928	ug/l	#	85
75) 1,1,2,2-Tetrachloroethane	12.941	83	5694	1.146	ug/l		98
76) 1,2,3-Trichloropropane	12.994	75	5139m	1.064	ug/l		
77) Bromobenzene	12.976	156	4887	1.280	ug/l		56
78) n-propylbenzene	13.041	91	17315	0.909	ug/l		94
79) 2-Chlorotoluene	13.123	91	11934	1.025	ug/l		89
80) 1,3,5-Trimethylbenzene	13.176	105	11796	0.886	ug/l		90
82) 4-Chlorotoluene	13.229	91	11526	1.002	ug/l		89
83) tert-Butylbenzene	13.441	119	11425	1.001	ug/l		89
84) 1,2,4-Trimethylbenzene	13.482	105	11816	0.876	ug/l		94
85) sec-Butylbenzene	13.617	105	14884	0.902	ug/l		89
86) p-Isopropyltoluene	13.729	119	10823	0.818	ug/l		94
87) 1,3-Dichlorobenzene	13.735	146	8487	1.177	ug/l		95
88) 1,4-Dichlorobenzene	13.811	146	8253m	1.146	ug/l		
89) n-Butylbenzene	14.059	91	11521	0.949	ug/l		94
90) Hexachloroethane	14.335	117	2334	1.007	ug/l		96
91) 1,2-Dichlorobenzene	14.106	146	7522	1.088	ug/l		96
92) 1,2-Dibromo-3-Chloropr...	14.717	75	1195	1.124	ug/l		74
93) 1,2,4-Trichlorobenzene	15.400	180	3975	1.075	ug/l		94
94) Hexachlorobutadiene	15.505	225	1873	1.226	ug/l		80
95) Naphthalene	15.641	128	12832	0.976	ug/l	#	93
96) 1,2,3-Trichlorobenzene	15.835	180	4135	1.103	ug/l		96

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

ICAL Form

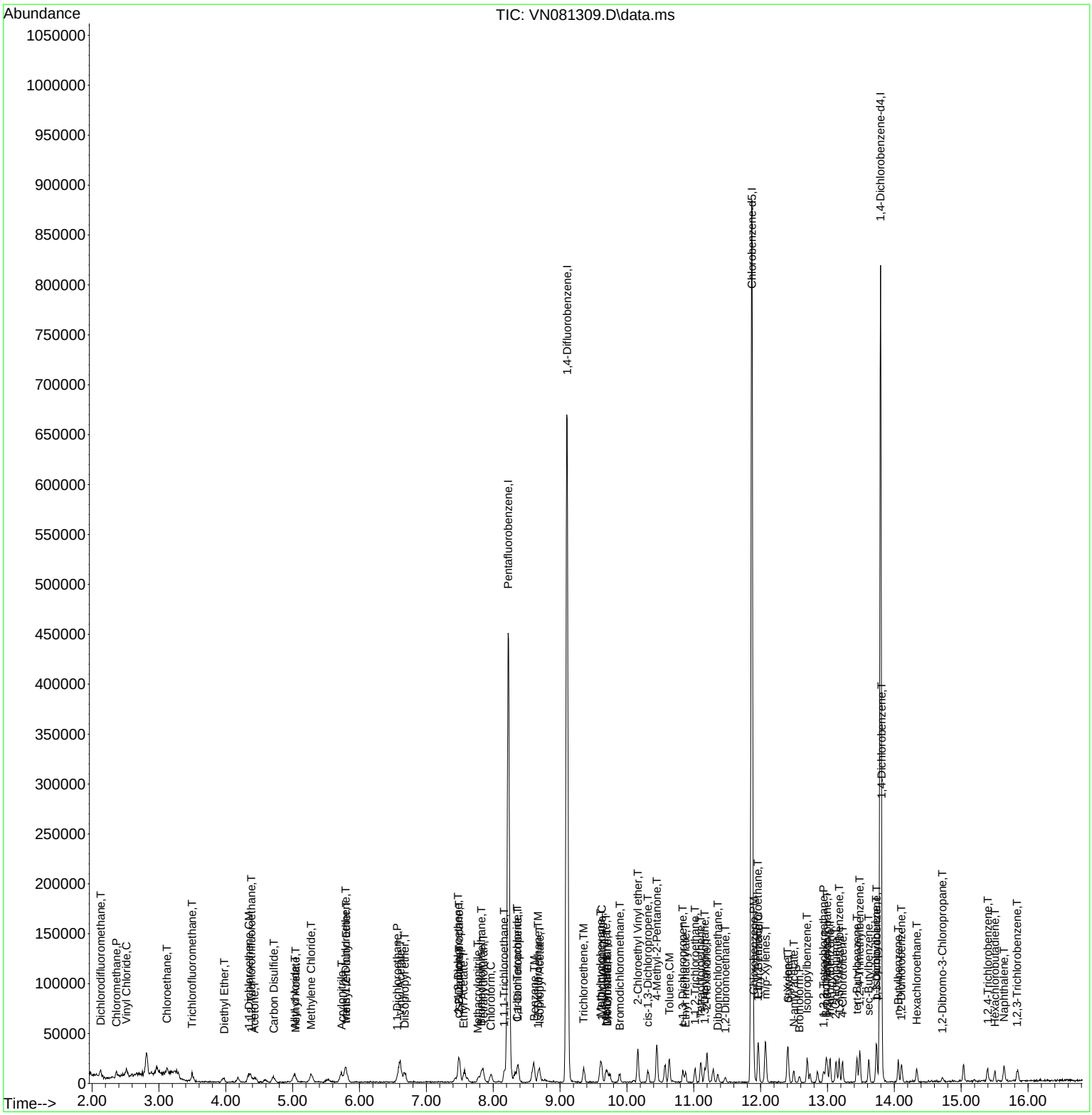
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081309.D
Acq On : 05 Mar 2024 13:59
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 06 02:57:23 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 01:47:06 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	317022	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	576046	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	530131	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	244531	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	240259	52.415	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 104.820%			
35) Dibromofluoromethane	8.171	113	190647	54.019	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 108.040%			
50) Toluene-d8	10.570	98	728380	55.209	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 110.420%			
62) 4-Bromofluorobenzene	12.853	95	264126	56.643	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 113.280%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	235505	56.040	ug/l	92
3) Chloromethane	2.359	50	219995	48.463	ug/l	95
4) Vinyl Chloride	2.512	62	237528	50.159	ug/l	95
5) Bromomethane	2.947	94	143320	45.315	ug/l	88
6) Chloroethane	3.118	64	151977	46.725	ug/l	96
7) Trichlorofluoromethane	3.494	101	364067	51.969	ug/l	93
8) Diethyl Ether	3.959	74	124610	50.487	ug/l	88
9) 1,1,2-Trichlorotrifluo...	4.371	101	200433	50.242	ug/l	92
10) Methyl Iodide	4.589	142	195264	53.486	ug/l	99
11) Tert butyl alcohol	5.518	59	197448	246.345	ug/l	100
12) 1,1-Dichloroethene	4.336	96	187751	50.819	ug/l	96
13) Acrolein	4.177	56	223773	235.778	ug/l	100
14) Allyl chloride	5.018	41	276645	50.456	ug/l #	92
15) Acrylonitrile	5.712	53	530405	253.310	ug/l	98
16) Acetone	4.424	43	388154	239.003	ug/l	98
17) Carbon Disulfide	4.712	76	526944	49.973	ug/l	98
18) Methyl Acetate	5.018	43	248374	53.416	ug/l	92
19) Methyl tert-butyl Ether	5.800	73	636164	50.771	ug/l	94
20) Methylene Chloride	5.277	84	212224	52.938	ug/l	95
21) trans-1,2-Dichloroethene	5.788	96	203281	48.803	ug/l	94
22) Diisopropyl ether	6.665	45	638110	52.399	ug/l #	91
23) Vinyl Acetate	6.600	43	2612312	264.050	ug/l #	93
24) 1,1-Dichloroethane	6.571	63	377953	50.700	ug/l	95
25) 2-Butanone	7.482	43	692863	254.749	ug/l	92
26) 2,2-Dichloropropane	7.488	77	338375	51.358	ug/l	99
27) cis-1,2-Dichloroethene	7.482	96	238009	50.400	ug/l	88
28) Bromochloromethane	7.818	49	153029	47.975	ug/l #	69
29) Tetrahydrofuran	7.841	42	470462	253.670	ug/l #	88
30) Chloroform	7.965	83	397941	51.441	ug/l	96
31) Cyclohexane	8.259	56	345472	49.781	ug/l #	77
32) 1,1,1-Trichloroethane	8.165	97	357452	52.275	ug/l	94
36) 1,1-Dichloropropene	8.371	75	295043	51.819	ug/l	97
37) Ethyl Acetate	7.559	43	279366	50.193	ug/l	98
38) Carbon Tetrachloride	8.365	117	306326	53.456	ug/l	97
39) Methylcyclohexane	9.606	83	357699	54.588	ug/l	90
40) Benzene	8.606	78	870699	51.232	ug/l	96

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Methacrylonitrile	7.782	41	156879	49.912 ug/l	97
42) 1,2-Dichloroethane	8.671	62	301795	50.364 ug/l	99
43) Isopropyl Acetate	8.688	43	478697	49.138 ug/l	96
44) Trichloroethene	9.353	130	218177	50.900 ug/l	96
45) 1,2-Dichloropropane	9.623	63	212716	49.824 ug/l	98
46) Dibromomethane	9.712	93	156293	51.937 ug/l	93
47) Bromodichloromethane	9.888	83	307392	52.618 ug/l	96
48) Methyl methacrylate	9.682	41	223090	51.808 ug/l	90
49) 1,4-Dioxane	9.700	88	96166	1013.222 ug/l #	85
51) 4-Methyl-2-Pentanone	10.447	43	1490057	263.420 ug/l	96
52) Toluene	10.635	92	542417	52.834 ug/l	100
53) t-1,3-Dichloropropene	10.835	75	338850	53.608 ug/l	97
54) cis-1,3-Dichloropropene	10.318	75	357207	52.349 ug/l	95
55) 1,1,2-Trichloroethane	11.018	97	213427	52.424 ug/l	94
56) Ethyl methacrylate	10.876	69	324416	55.495 ug/l	92
57) 1,3-Dichloropropane	11.165	76	366587	51.593 ug/l	100
58) 2-Chloroethyl Vinyl ether	10.159	63	898601	285.759 ug/l #	89
59) 2-Hexanone	11.200	43	1138636	269.259 ug/l	97
60) Dibromochloromethane	11.365	129	226572	54.038 ug/l	97
61) 1,2-Dibromoethane	11.470	107	222277	52.620 ug/l	100
64) Tetrachloroethene	11.106	164	212796	51.265 ug/l	94
65) Chlorobenzene	11.894	112	566123	50.677 ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.965	131	209851	51.335 ug/l	97
67) Ethyl Benzene	11.965	91	1055695	52.462 ug/l	99
68) m/p-Xylenes	12.076	106	794764	104.944 ug/l	100
69) o-Xylene	12.400	106	389990	53.135 ug/l	97
70) Styrene	12.412	104	645212	55.473 ug/l	98
71) Bromoform	12.582	173	148325	52.264 ug/l #	97
73) Isopropylbenzene	12.700	105	1033653	52.348 ug/l	98
74) N-amyl acetate	12.494	43	425515	51.359 ug/l	93
75) 1,1,2,2-Tetrachloroethane	12.941	83	291095	47.769 ug/l	98
76) 1,2,3-Trichloropropane	12.994	75	288080m	49.877 ug/l	
77) Bromobenzene	12.982	156	227144	48.517 ug/l	79
78) n-propylbenzene	13.041	91	1268340	54.307 ug/l	98
79) 2-Chlorotoluene	13.129	91	730013	51.137 ug/l	94
80) 1,3,5-Trimethylbenzene	13.176	105	869831	53.290 ug/l	96
81) trans-1,4-Dichloro-2-b...	12.741	75	106553	51.486 ug/l #	78
82) 4-Chlorotoluene	13.223	91	730468	51.804 ug/l	95
83) tert-Butylbenzene	13.441	119	755529	53.991 ug/l	95
84) 1,2,4-Trimethylbenzene	13.482	105	880394	53.237 ug/l	96
85) sec-Butylbenzene	13.617	105	1104712	54.569 ug/l	96
86) p-Isopropyltoluene	13.735	119	899658	55.414 ug/l	98
87) 1,3-Dichlorobenzene	13.735	146	430001	48.642 ug/l	97
88) 1,4-Dichlorobenzene	13.817	146	437378	49.500 ug/l	98
89) n-Butylbenzene	14.059	91	841166	56.498 ug/l	96
90) Hexachloroethane	14.335	117	144917	50.984 ug/l	96
91) 1,2-Dichlorobenzene	14.106	146	420649	49.595 ug/l	96
92) 1,2-Dibromo-3-Chloropr...	14.723	75	60772	46.603 ug/l	78
93) 1,2,4-Trichlorobenzene	15.394	180	239849	52.904 ug/l	99
94) Hexachlorobutadiene	15.505	225	92656	49.461 ug/l	96
95) Naphthalene	15.641	128	850370	52.713 ug/l	99
96) 1,2,3-Trichlorobenzene	15.847	180	236281	51.392 ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

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

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

ICAL Form

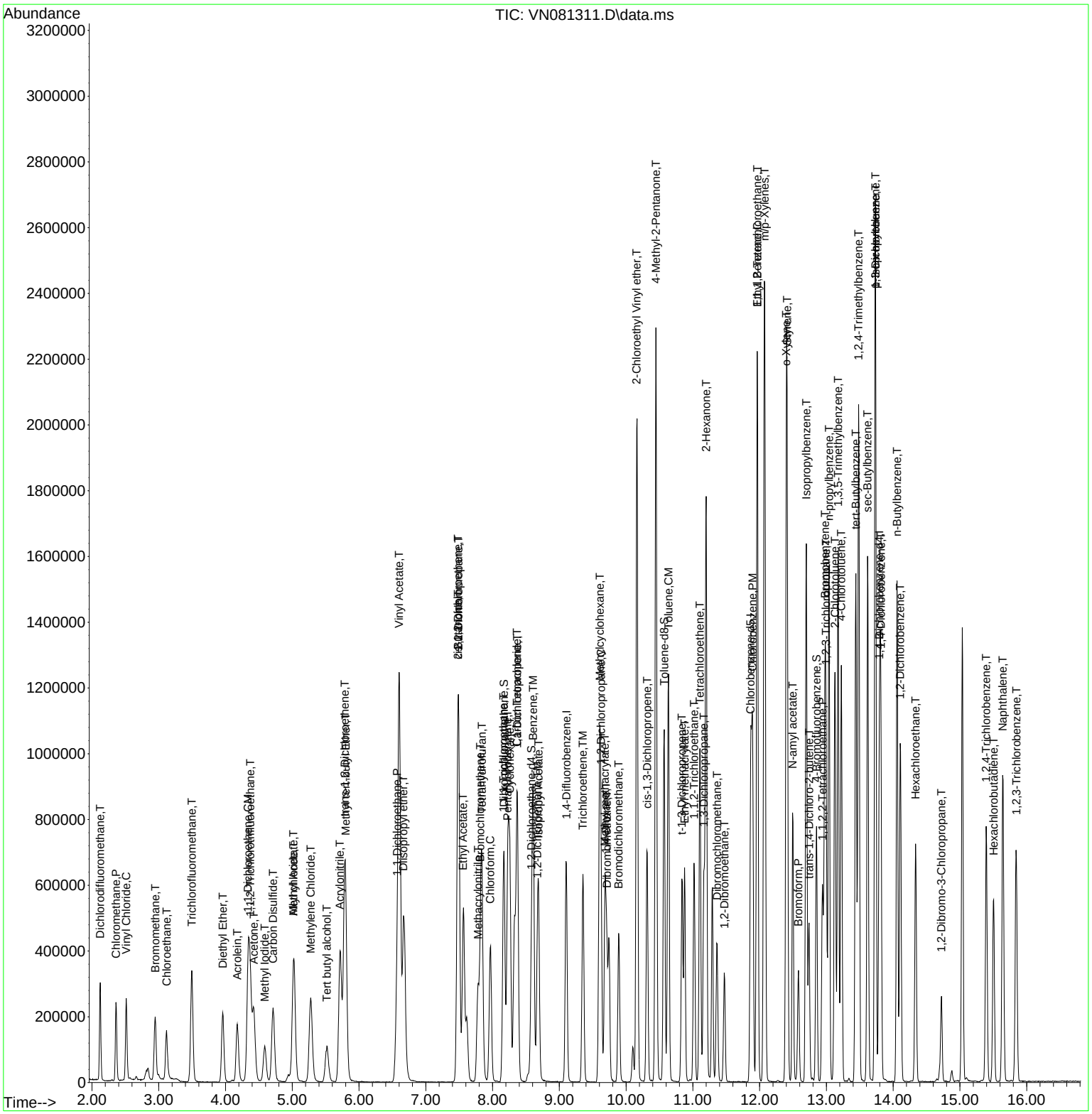
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Manual Integrations APPROVED

Reviewed By :John Carlone 03/06/2024
Supervised By :Mahesh Dadoda 03/06/2024



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	92	0.00
2	T	Dichlorodifluoromethane	0.663	0.743	-12.1	95	0.00
3	P	Chloromethane	0.716	0.694	3.1	96	0.00
4	C	Vinyl Chloride	0.747	0.749	-0.3#	99	0.00
5	T	Bromomethane	0.499	0.452	9.4	90	0.00
6	T	Chloroethane	0.513	0.479	6.6	96	0.00
7	T	Trichlorofluoromethane	1.105	1.148	-3.9	100	0.00
8	T	Diethyl Ether	0.389	0.393	-1.0	95	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.629	0.632	-0.5	100	0.00
10	T	Methyl Iodide	0.576	0.616	-6.9	96	0.00
11	T	Tert butyl alcohol	0.126	0.125	0.8	101	0.00
12	CM	1,1-Dichloroethene	0.583	0.592	-1.5#	98	0.00
13	T	Acrolein	0.150	0.141	6.0	90	0.00
14	T	Allyl chloride	0.865	0.873	-0.9	100	0.00
15	T	Acrylonitrile	0.330	0.335	-1.5	100	0.00
16	T	Acetone	0.256	0.245	4.3	99	0.00
17	T	Carbon Disulfide	1.663	1.662	0.1	99	0.00
18	T	Methyl Acetate	0.733	0.783	-6.8	100	0.00
19	T	Methyl tert-butyl Ether	1.976	2.007	-1.6	97	0.00
20	T	Methylene Chloride	0.718	0.669	6.8	98	0.00
21	T	trans-1,2-Dichloroethene	0.657	0.641	2.4	98	0.00
22	T	Diisopropyl ether	1.921	2.013	-4.8	97	0.00
23	T	Vinyl Acetate	1.560	1.648	-5.6	98	0.00
24	P	1,1-Dichloroethane	1.176	1.192	-1.4	99	0.00
25	T	2-Butanone	0.429	0.437	-1.9	101	0.00
26	T	2,2-Dichloropropane	1.039	1.067	-2.7	97	0.00
27	T	cis-1,2-Dichloroethene	0.745	0.751	-0.8	101	0.00
28	T	Bromochloromethane	0.503	0.483	4.0	94	0.00
29	T	Tetrahydrofuran	0.293	0.297	-1.4	101	0.00
30	C	Chloroform	1.220	1.255	-2.9#	99	0.00
31	T	Cyclohexane	1.095	1.090	0.5	100	0.00
32	T	1,1,1-Trichloroethane	1.078	1.128	-4.6	101	0.00
33	S	1,2-Dichloroethane-d4	0.723	0.758	-4.8	93	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	93	0.00
35	S	Dibromofluoromethane	0.306	0.331	-8.2	95	0.00
36	T	1,1-Dichloropropene	0.494	0.512	-3.6	99	0.00
37	T	Ethyl Acetate	0.483	0.485	-0.4	95	0.00
38	T	Carbon Tetrachloride	0.497	0.532	-7.0	99	0.00
39	T	Methylcyclohexane	0.569	0.621	-9.1	100	0.00
40	TM	Benzene	1.475	1.512	-2.5	99	0.00
41	T	Methacrylonitrile	0.273	0.272	0.4	99	0.00
42	TM	1,2-Dichloroethane	0.520	0.524	-0.8	96	0.00
43	T	Isopropyl Acetate	0.846	0.831	1.8	95	0.00
44	TM	Trichloroethene	0.372	0.379	-1.9	96	0.00
45	C	1,2-Dichloropropane	0.371	0.369	0.5#	96	0.00
46	T	Dibromomethane	0.261	0.271	-3.8	97	0.00
47	T	Bromodichloromethane	0.507	0.534	-5.3	99	0.00
48	T	Methyl methacrylate	0.374	0.387	-3.5	97	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	0.008	0.008	0.0	103	0.00
50	S	Toluene-d8	1.145	1.264	-10.4	95	0.00
51	T	4-Methyl-2-Pentanone	0.491	0.517	-5.3	99	0.00
52	CM	Toluene	0.891	0.942	-5.7#	98	0.00
53	T	t-1,3-Dichloropropene	0.549	0.588	-7.1	98	0.00
54	T	cis-1,3-Dichloropropene	0.592	0.620	-4.7	97	0.00
55	T	1,1,2-Trichloroethane	0.353	0.371	-5.1	100	0.00
56	T	Ethyl methacrylate	0.507	0.563	-11.0	98	0.00
57	T	1,3-Dichloropropane	0.617	0.636	-3.1	98	0.00
58	T	2-Chloroethyl Vinyl ether	0.273	0.312	-14.3	100	0.00
59	T	2-Hexanone	0.367	0.395	-7.6	101	0.00
60	T	Dibromochloromethane	0.364	0.393	-8.0	99	0.00
61	T	1,2-Dibromoethane	0.367	0.386	-5.2	99	0.00
62	S	4-Bromofluorobenzene	0.405	0.459	-13.3	98	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	94	0.00
64	T	Tetrachloroethene	0.391	0.401	-2.6	102	0.00
65	PM	Chlorobenzene	1.054	1.068	-1.3	99	0.00
66	T	1,1,1,2-Tetrachloroethane	0.386	0.396	-2.6	99	0.00
67	C	Ethyl Benzene	1.898	1.991	-4.9#	98	0.00
68	T	m/p-Xylenes	0.714	0.750	-5.0	99	0.00
69	T	o-Xylene	0.692	0.736	-6.4	100	0.00
70	T	Styrene	1.097	1.217	-10.9	99	0.00
71	P	Bromoform	0.268	0.280	-4.5	97	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
73	T	Isopropylbenzene	4.037	4.227	-4.7	99	0.00
74	T	N-amyl acetate	1.694	1.740	-2.7	96	0.00
75	P	1,1,2,2-Tetrachloroethane	1.246	1.190	4.5	99	0.00
76	T	1,2,3-Trichloropropane	1.181	1.178	0.3	102	0.00
77	T	Bromobenzene	0.957	0.929	2.9	100	0.00
78	T	n-propylbenzene	4.775	5.187	-8.6	100	0.00
79	T	2-Chlorotoluene	2.919	2.985	-2.3	100	0.00
80	T	1,3,5-Trimethylbenzene	3.338	3.557	-6.6	99	0.00
81	T	trans-1,4-Dichloro-2-butene	0.423	0.436	-3.1	88	0.00
82	T	4-Chlorotoluene	2.883	2.987	-3.6	100	0.00
83	T	tert-Butylbenzene	2.861	3.090	-8.0	103	0.00
84	T	1,2,4-Trimethylbenzene	3.381	3.600	-6.5	100	0.00
85	T	sec-Butylbenzene	4.139	4.518	-9.2	101	0.00
86	T	p-Isopropyltoluene	3.320	3.679	-10.8	101	0.00
87	T	1,3-Dichlorobenzene	1.808	1.758	2.8	100	0.00
88	T	1,4-Dichlorobenzene	1.807	1.789	1.0	101	0.00
89	T	n-Butylbenzene	3.044	3.440	-13.0	104	0.00
90	T	Hexachloroethane	0.581	0.593	-2.1	95	0.00
91	T	1,2-Dichlorobenzene	1.734	1.720	0.8	102	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.267	0.249	6.7	92	0.00
93	T	1,2,4-Trichlorobenzene	0.927	0.981	-5.8	101	0.00
94	T	Hexachlorobutadiene	0.383	0.379	1.0	100	0.00
95	T	Naphthalene	3.299	3.478	-5.4	98	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	0.940	0.966	-2.8	101	0.00

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

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	92	0.00
2	T	Dichlorodifluoromethane	50.000	56.040	-12.1	95	0.00
3	P	Chloromethane	50.000	48.463	3.1	96	0.00
4	C	Vinyl Chloride	50.000	50.159	-0.3#	99	0.00
5	T	Bromomethane	50.000	45.315	9.4	90	0.00
6	T	Chloroethane	50.000	46.725	6.5	96	0.00
7	T	Trichlorofluoromethane	50.000	51.969	-3.9	100	0.00
8	T	Diethyl Ether	50.000	50.487	-1.0	95	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	50.242	-0.5	100	0.00
10	T	Methyl Iodide	50.000	53.486	-7.0	96	0.00
11	T	Tert butyl alcohol	250.000	246.345	1.5	101	0.00
12	CM	1,1-Dichloroethene	50.000	50.819	-1.6#	98	0.00
13	T	Acrolein	250.000	235.778	5.7	90	0.00
14	T	Allyl chloride	50.000	50.456	-0.9	100	0.00
15	T	Acrylonitrile	250.000	253.310	-1.3	100	0.00
16	T	Acetone	250.000	239.003	4.4	99	0.00
17	T	Carbon Disulfide	50.000	49.973	0.1	99	0.00
18	T	Methyl Acetate	50.000	53.416	-6.8	100	0.00
19	T	Methyl tert-butyl Ether	50.000	50.771	-1.5	97	0.00
20	T	Methylene Chloride	50.000	52.938	-5.9	98	0.00
21	T	trans-1,2-Dichloroethene	50.000	48.803	2.4	98	0.00
22	T	Diisopropyl ether	50.000	52.399	-4.8	97	0.00
23	T	Vinyl Acetate	250.000	264.050	-5.6	98	0.00
24	P	1,1-Dichloroethane	50.000	50.700	-1.4	99	0.00
25	T	2-Butanone	250.000	254.749	-1.9	101	0.00
26	T	2,2-Dichloropropane	50.000	51.358	-2.7	97	0.00
27	T	cis-1,2-Dichloroethene	50.000	50.400	-0.8	101	0.00
28	T	Bromochloromethane	50.000	47.975	4.0	94	0.00
29	T	Tetrahydrofuran	250.000	253.670	-1.5	101	0.00
30	C	Chloroform	50.000	51.441	-2.9#	99	0.00
31	T	Cyclohexane	50.000	49.781	0.4	100	0.00
32	T	1,1,1-Trichloroethane	50.000	52.275	-4.5	101	0.00
33	S	1,2-Dichloroethane-d4	50.000	52.415	-4.8	93	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	93	0.00
35	S	Dibromofluoromethane	50.000	54.019	-8.0	95	0.00
36	T	1,1-Dichloropropene	50.000	51.819	-3.6	99	0.00
37	T	Ethyl Acetate	50.000	50.193	-0.4	95	0.00
38	T	Carbon Tetrachloride	50.000	53.456	-6.9	99	0.00
39	T	Methylcyclohexane	50.000	54.588	-9.2	100	0.00
40	TM	Benzene	50.000	51.232	-2.5	99	0.00
41	T	Methacrylonitrile	50.000	49.912	0.2	99	0.00
42	TM	1,2-Dichloroethane	50.000	50.364	-0.7	96	0.00
43	T	Isopropyl Acetate	50.000	49.138	1.7	95	0.00
44	TM	Trichloroethene	50.000	50.900	-1.8	96	0.00
45	C	1,2-Dichloropropane	50.000	49.824	0.4#	96	0.00
46	T	Dibromomethane	50.000	51.937	-3.9	97	0.00
47	T	Bromodichloromethane	50.000	52.618	-5.2	99	0.00
48	T	Methyl methacrylate	50.000	51.808	-3.6	97	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	1013.222	-1.3	103	0.00
50	S	Toluene-d8	50.000	55.209	-10.4	95	0.00
51	T	4-Methyl-2-Pentanone	250.000	263.420	-5.4	99	0.00
52	CM	Toluene	50.000	52.834	-5.7#	98	0.00
53	T	t-1,3-Dichloropropene	50.000	53.608	-7.2	98	0.00
54	T	cis-1,3-Dichloropropene	50.000	52.349	-4.7	97	0.00
55	T	1,1,2-Trichloroethane	50.000	52.424	-4.8	100	0.00
56	T	Ethyl methacrylate	50.000	55.495	-11.0	98	0.00
57	T	1,3-Dichloropropane	50.000	51.593	-3.2	98	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	285.759	-14.3	100	0.00
59	T	2-Hexanone	250.000	269.259	-7.7	101	0.00
60	T	Dibromochloromethane	50.000	54.038	-8.1	99	0.00
61	T	1,2-Dibromoethane	50.000	52.620	-5.2	99	0.00
62	S	4-Bromofluorobenzene	50.000	56.643	-13.3	98	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	94	0.00
64	T	Tetrachloroethene	50.000	51.265	-2.5	102	0.00
65	PM	Chlorobenzene	50.000	50.677	-1.4	99	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	51.335	-2.7	99	0.00
67	C	Ethyl Benzene	50.000	52.462	-4.9#	98	0.00
68	T	m/p-Xylenes	100.000	104.944	-4.9	99	0.00
69	T	o-Xylene	50.000	53.135	-6.3	100	0.00
70	T	Styrene	50.000	55.473	-10.9	99	0.00
71	P	Bromoform	50.000	52.264	-4.5	97	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	97	0.00
73	T	Isopropylbenzene	50.000	52.348	-4.7	99	0.00
74	T	N-amyl acetate	50.000	51.359	-2.7	96	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	47.769	4.5	99	0.00
76	T	1,2,3-Trichloropropane	50.000	49.877	0.2	102	0.00
77	T	Bromobenzene	50.000	48.517	3.0	100	0.00
78	T	n-propylbenzene	50.000	54.307	-8.6	100	0.00
79	T	2-Chlorotoluene	50.000	51.137	-2.3	100	0.00
80	T	1,3,5-Trimethylbenzene	50.000	53.290	-6.6	99	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	51.486	-3.0	88	0.00
82	T	4-Chlorotoluene	50.000	51.804	-3.6	100	0.00
83	T	tert-Butylbenzene	50.000	53.991	-8.0	103	0.00
84	T	1,2,4-Trimethylbenzene	50.000	53.237	-6.5	100	0.00
85	T	sec-Butylbenzene	50.000	54.569	-9.1	101	0.00
86	T	p-Isopropyltoluene	50.000	55.414	-10.8	101	0.00
87	T	1,3-Dichlorobenzene	50.000	48.642	2.7	100	0.00
88	T	1,4-Dichlorobenzene	50.000	49.500	1.0	101	0.00
89	T	n-Butylbenzene	50.000	56.498	-13.0	104	0.00
90	T	Hexachloroethane	50.000	50.984	-2.0	95	0.00
91	T	1,2-Dichlorobenzene	50.000	49.595	0.8	102	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	46.603	6.8	92	0.00
93	T	1,2,4-Trichlorobenzene	50.000	52.904	-5.8	101	0.00
94	T	Hexachlorobutadiene	50.000	49.461	1.1	100	0.00
95	T	Naphthalene	50.000	52.713	-5.4	98	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081311.D
Acq On : 05 Mar 2024 15:15
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN030524

Quant Time: Mar 06 03:18:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	51.392	-2.8	101	0.00

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

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG No.: P1747

Instrument ID: MSVOA_N Calibration Date/Time: 03/14/2024 11:22

Lab File ID: VN081401.D Init. Calib. Date(s): 03/05/2024 03/05/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:00 13:59

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.663	0.652		-1.66	20
Chloromethane	0.716	0.610	0.1	-14.8	20
Vinyl Chloride	0.747	0.657		-12.05	20
Bromomethane	0.499	0.412		-17.43	20
Chloroethane	0.513	0.439		-14.43	20
Trichlorofluoromethane	1.105	1.053		-4.71	20
1,1,2-Trichlorotrifluoroethane	0.629	0.586		-6.84	20
1,1-Dichloroethene	0.583	0.522		-10.46	20
Acetone	0.256	0.213		-16.8	20
Carbon Disulfide	1.663	1.382		-16.9	20
Methyl tert-butyl Ether	1.976	1.904		-3.64	20
Methyl Acetate	0.733	0.785		7.09	20
Methylene Chloride	0.718	0.616		-14.21	20
trans-1,2-Dichloroethene	0.657	0.586		-10.81	20
1,1-Dichloroethane	1.176	1.126	0.1	-4.25	20
Cyclohexane	1.095	0.915		-16.44	20
2-Butanone	0.429	0.371		-13.52	20
Carbon Tetrachloride	0.497	0.527		6.04	20
cis-1,2-Dichloroethene	0.745	0.690		-7.38	20
Bromochloromethane	0.503	0.502		-0.2	20
Chloroform	1.220	1.205		-1.23	20
1,1,1-Trichloroethane	1.078	1.062		-1.48	20
Methylcyclohexane	0.569	0.542		-4.74	20
Benzene	1.475	1.442		-2.24	20
1,2-Dichloroethane	0.520	0.532		2.31	20
Trichloroethene	0.372	0.371		-0.27	20
1,2-Dichloropropane	0.371	0.379		2.16	20
Bromodichloromethane	0.507	0.541		6.71	20
4-Methyl-2-Pentanone	0.491	0.478		-2.65	20
Toluene	0.891	0.899		0.9	20
t-1,3-Dichloropropene	0.549	0.573		4.37	20
cis-1,3-Dichloropropene	0.592	0.613		3.55	20
1,1,2-Trichloroethane	0.353	0.361		2.27	20
2-Hexanone	0.367	0.358		-2.45	20
Dibromochloromethane	0.364	0.390		7.14	20
1,2-Dibromoethane	0.367	0.362		-1.36	20
Tetrachloroethene	0.391	0.397		1.53	20
Chlorobenzene	1.054	1.033	0.3	-1.99	20
Ethyl Benzene	1.898	1.918		1.05	20

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

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG No.: P1747

Instrument ID: MSVOA_N Calibration Date/Time: 03/14/2024 11:22

Lab File ID: VN081401.D Init. Calib. Date(s): 03/05/2024 03/05/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:00 13:59

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.714	0.721		0.98	20
o-Xylene	0.692	0.706		2.02	20
Styrene	1.097	1.167		6.38	20
Bromoform	0.268	0.270	0.1	0.75	20
Isopropylbenzene	4.037	4.048		0.27	20
1,1,2,2-Tetrachloroethane	1.246	1.117	0.3	-10.35	20
1,3-Dichlorobenzene	1.808	1.735		-4.04	20
1,4-Dichlorobenzene	1.807	1.693		-6.31	20
1,2-Dichlorobenzene	1.734	1.649		-4.9	20
1,2-Dibromo-3-Chloropropane	0.267	0.246		-7.86	20
1,2,4-Trichlorobenzene	0.927	0.920		-0.75	20
1,2,3-Trichlorobenzene	0.940	0.916		-2.55	20
1,2-Dichloroethane-d4	0.723	0.723		0	20
Dibromofluoromethane	0.306	0.320		4.57	20
Toluene-d8	1.145	1.168		2.01	20
4-Bromofluorobenzene	0.405	0.420		3.7	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_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.224	168	340353	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.100	114	595569	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.865	117	547809	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	252603	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.582	65	246191	50.027	ug/l		0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 100.060%				
35) Dibromofluoromethane	8.171	113	190858	52.306	ug/l		0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 104.620%				
50) Toluene-d8	10.571	98	695895	51.018	ug/l		0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 102.040%				
62) 4-Bromofluorobenzene	12.853	95	249871	51.830	ug/l		0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 103.660%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.124	85	221878	49.178	ug/l		99
3) Chloromethane	2.359	50	207448	42.567	ug/l		98
4) Vinyl Chloride	2.518	62	223767	44.014	ug/l		95
5) Bromomethane	2.948	94	140131	41.269	ug/l		93
6) Chloroethane	3.124	64	149297	42.755	ug/l		95
7) Trichlorofluoromethane	3.500	101	358317	47.642	ug/l		96
8) Diethyl Ether	3.965	74	125387	47.320	ug/l		83
9) 1,1,2-Trichlorotrifluo...	4.377	101	199477	46.575	ug/l		92
10) Methyl Iodide	4.589	142	205030	52.312	ug/l	#	96
11) Tert butyl alcohol	5.512	59	202767	235.639	ug/l		99
12) 1,1-Dichloroethene	4.342	96	177577	44.770	ug/l		94
13) Acrolein	4.177	56	204514	200.714	ug/l		98
14) Allyl chloride	5.024	41	269595	45.800	ug/l	#	86
15) Acrylonitrile	5.718	53	503696	224.065	ug/l		97
16) Acetone	4.424	43	362716	208.030	ug/l		99
17) Carbon Disulfide	4.712	76	470460	41.558	ug/l	#	95
18) Methyl Acetate	5.024	43	267262	53.538	ug/l		94
19) Methyl tert-butyl Ether	5.794	73	648128	48.180	ug/l		99
20) Methylene Chloride	5.271	84	209721	48.662	ug/l		94
21) trans-1,2-Dichloroethene	5.789	96	199469	44.605	ug/l		97
22) Diisopropyl ether	6.671	45	666276	50.961	ug/l	#	94
23) Vinyl Acetate	6.600	43	2501613	235.528	ug/l	#	94
24) 1,1-Dichloroethane	6.571	63	383389	47.904	ug/l		99
25) 2-Butanone	7.483	43	631019	216.106	ug/l		94
26) 2,2-Dichloropropane	7.488	77	336719	47.603	ug/l		98
27) cis-1,2-Dichloroethene	7.488	96	234872	46.327	ug/l		91
28) Bromochloromethane	7.812	49	170904	49.906	ug/l	#	73
29) Tetrahydrofuran	7.841	42	437465	219.709	ug/l		91
30) Chloroform	7.965	83	410193	49.390	ug/l		95
31) Cyclohexane	8.259	56	311415	41.798	ug/l	#	77
32) 1,1,1-Trichloroethane	8.171	97	361467	49.238	ug/l		94
36) 1,1-Dichloropropene	8.371	75	292061	49.614	ug/l		98
37) Ethyl Acetate	7.559	43	267565	46.497	ug/l		99
38) Carbon Tetrachloride	8.359	117	313762	52.959	ug/l		99
39) Methylcyclohexane	9.600	83	322665	47.628	ug/l		92
40) Benzene	8.606	78	858884	48.881	ug/l		97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.783	41	156149	48.051	ug/l		97
42) 1,2-Dichloroethane	8.677	62	317004	51.168	ug/l		100
43) Isopropyl Acetate	8.688	43	483496	48.004	ug/l		98
44) Trichloroethene	9.353	130	220912	49.849	ug/l		97
45) 1,2-Dichloropropane	9.624	63	225831	51.162	ug/l		99
46) Dibromomethane	9.712	93	157605	50.656	ug/l		92
47) Bromodichloromethane	9.888	83	322344	53.368	ug/l	#	99
48) Methyl methacrylate	9.682	41	220451	49.517	ug/l		90
49) 1,4-Dioxane	9.694	88	81150	826.983	ug/l	#	88
51) 4-Methyl-2-Pentanone	10.447	43	1423551	243.414	ug/l		97
52) Toluene	10.629	92	535328	50.434	ug/l		99
53) t-1,3-Dichloropropene	10.835	75	341163	52.204	ug/l		96
54) cis-1,3-Dichloropropene	10.312	75	365134	51.757	ug/l		98
55) 1,1,2-Trichloroethane	11.018	97	215071	51.096	ug/l		97
56) Ethyl methacrylate	10.876	69	319292	52.828	ug/l		91
57) 1,3-Dichloropropane	11.165	76	373873	50.894	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.165	63	890461	273.888	ug/l	#	88
59) 2-Hexanone	11.194	43	1065736	243.758	ug/l		98
60) Dibromochloromethane	11.359	129	232220	53.570	ug/l		100
61) 1,2-Dibromoethane	11.471	107	215349	49.309	ug/l		98
64) Tetrachloroethene	11.106	164	217391	50.682	ug/l		92
65) Chlorobenzene	11.894	112	566023	49.033	ug/l		96
66) 1,1,1,2-Tetrachloroethane	11.965	131	216011	51.137	ug/l		96
67) Ethyl Benzene	11.965	91	1050557	50.522	ug/l		99
68) m/p-Xylenes	12.070	106	789799	100.923	ug/l		100
69) o-Xylene	12.400	106	386492	50.959	ug/l		97
70) Styrene	12.412	104	639194	53.182	ug/l		97
71) Bromoform	12.582	173	147694	50.362	ug/l	#	91
73) Isopropylbenzene	12.700	105	1022609	50.134	ug/l		98
74) N-amyl acetate	12.494	43	421776	49.281	ug/l		94
75) 1,1,2,2-Tetrachloroethane	12.941	83	282193	44.829	ug/l		99
76) 1,2,3-Trichloropropane	12.994	75	271534m	45.510	ug/l		
77) Bromobenzene	12.982	156	224599	46.441	ug/l		80
78) n-propylbenzene	13.035	91	1256399	52.077	ug/l		98
79) 2-Chlorotoluene	13.129	91	729884	49.494	ug/l		95
80) 1,3,5-Trimethylbenzene	13.176	105	877959	52.069	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.735	75	120020	56.140	ug/l		98
82) 4-Chlorotoluene	13.223	91	737780	50.651	ug/l		97
83) tert-Butylbenzene	13.441	119	726646	50.268	ug/l		98
84) 1,2,4-Trimethylbenzene	13.482	105	880337	51.532	ug/l		97
85) sec-Butylbenzene	13.617	105	1071550	51.239	ug/l		96
86) p-Isopropyltoluene	13.729	119	888708	52.991	ug/l		98
87) 1,3-Dichlorobenzene	13.735	146	438301	47.996	ug/l		96
88) 1,4-Dichlorobenzene	13.812	146	427742	46.863	ug/l		98
89) n-Butylbenzene	14.059	91	795699	51.736	ug/l		97
90) Hexachloroethane	14.335	117	153942	52.429	ug/l		100
91) 1,2-Dichlorobenzene	14.106	146	416466	47.533	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.723	75	62249	46.211	ug/l		88
93) 1,2,4-Trichlorobenzene	15.394	180	232458	49.636	ug/l		99
94) Hexachlorobutadiene	15.506	225	88517	45.741	ug/l		98
95) Naphthalene	15.641	128	817452	49.053	ug/l		100
96) 1,2,3-Trichlorobenzene	15.841	180	231427	48.728	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

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

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

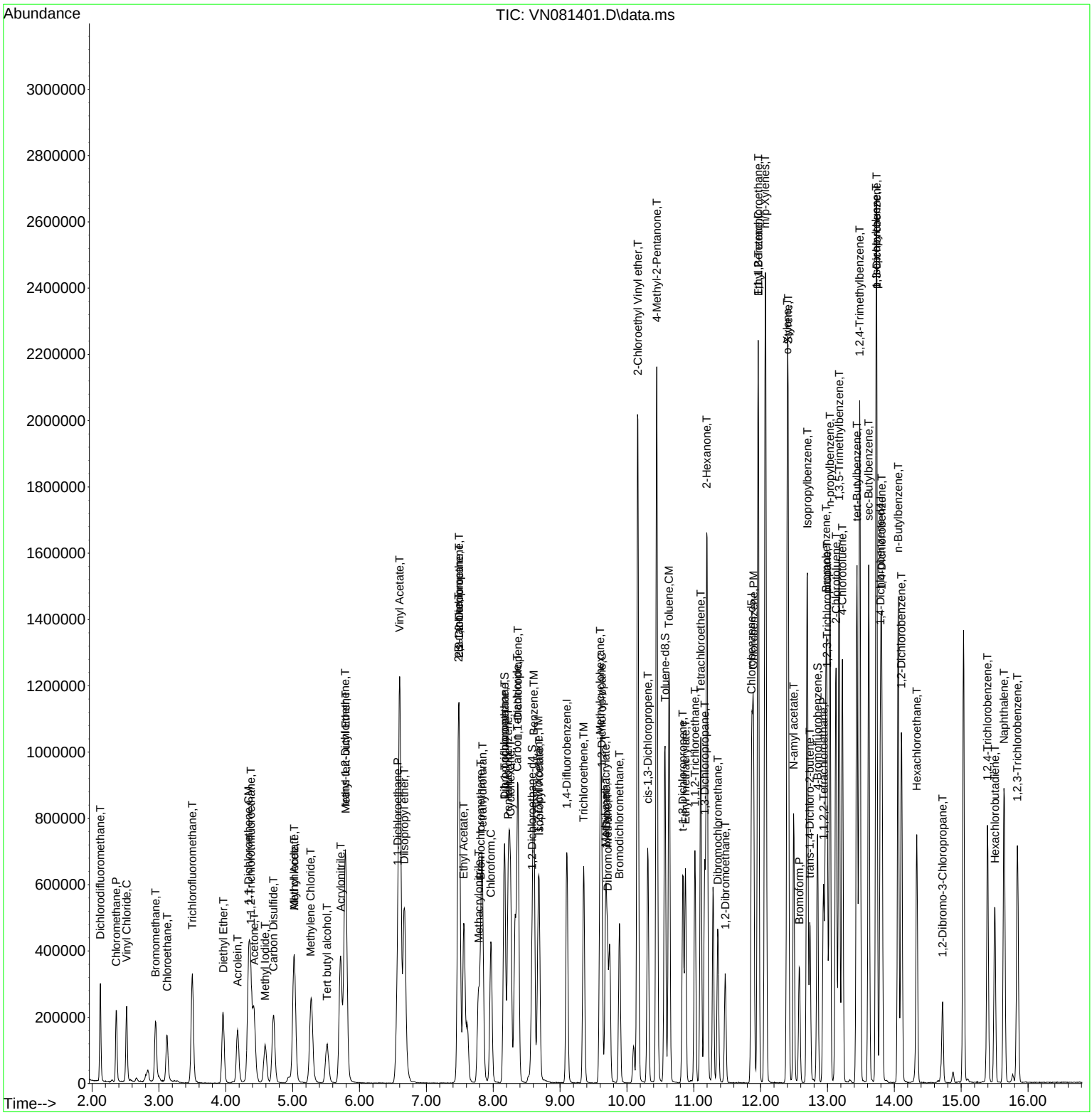
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024



Sample Results: **VN081401.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	0.663	0.652	1.7	90	0.00
3	P	Chloromethane	0.716	0.610	14.8	90	0.00
4	C	Vinyl Chloride	0.747	0.657	12.0#	93	0.00
5	T	Bromomethane	0.499	0.412	17.4	88	0.00
6	T	Chloroethane	0.513	0.439	14.4	94	0.01
7	T	Trichlorofluoromethane	1.105	1.053	4.7	98	0.00
8	T	Diethyl Ether	0.389	0.368	5.4	96	0.01
9	T	1,1,2-Trichlorotrifluoroeth	0.629	0.586	6.8	100	0.01
10	T	Methyl Iodide	0.576	0.602	-4.5	100	0.00
11	T	Tert butyl alcohol	0.126	0.119	5.6	104	0.00
12	CM	1,1-Dichloroethene	0.583	0.522	10.5#	93	0.00
13	T	Acrolein	0.150	0.120	20.0	82	0.00
14	T	Allyl chloride	0.865	0.792	8.4	97	0.00
15	T	Acrylonitrile	0.330	0.296	10.3	95	0.00
16	T	Acetone	0.256	0.213	16.8	93	0.00
17	T	Carbon Disulfide	1.663	1.382	16.9	89	0.00
18	T	Methyl Acetate	0.733	0.785	-7.1	107	0.00
19	T	Methyl tert-butyl Ether	1.976	1.904	3.6	99	0.00
20	T	Methylene Chloride	0.718	0.616	14.2	97	-0.01
21	T	trans-1,2-Dichloroethene	0.657	0.586	10.8	96	0.00
22	T	Diisopropyl ether	1.921	1.958	-1.9	101	0.00
23	T	Vinyl Acetate	1.560	1.470	5.8	93	0.00
24	P	1,1-Dichloroethane	1.176	1.126	4.3	100	0.00
25	T	2-Butanone	0.429	0.371	13.5	92	0.00
26	T	2,2-Dichloropropane	1.039	0.989	4.8	96	0.00
27	T	cis-1,2-Dichloroethene	0.745	0.690	7.4	100	0.00
28	T	Bromochloromethane	0.503	0.502	0.2	105	0.00
29	T	Tetrahydrofuran	0.293	0.257	12.3	94	0.00
30	C	Chloroform	1.220	1.205	1.2#	102	0.00
31	T	Cyclohexane	1.095	0.915	16.4	91	0.00
32	T	1,1,1-Trichloroethane	1.078	1.062	1.5	102	0.00
33	S	1,2-Dichloroethane-d4	0.723	0.723	0.0	95	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	96	0.00
35	S	Dibromofluoromethane	0.306	0.320	-4.6	95	0.00
36	T	1,1-Dichloropropene	0.494	0.490	0.8	98	0.00
37	T	Ethyl Acetate	0.483	0.449	7.0	91	0.00
38	T	Carbon Tetrachloride	0.497	0.527	-6.0	101	0.00
39	T	Methylcyclohexane	0.569	0.542	4.7	90	0.00
40	TM	Benzene	1.475	1.442	2.2	97	0.00
41	T	Methacrylonitrile	0.273	0.262	4.0	98	0.00
42	TM	1,2-Dichloroethane	0.520	0.532	-2.3	101	0.00
43	T	Isopropyl Acetate	0.846	0.812	4.0	96	0.00
44	TM	Trichloroethene	0.372	0.371	0.3	97	0.00
45	C	1,2-Dichloropropane	0.371	0.379	-2.2#	102	0.00
46	T	Dibromomethane	0.261	0.265	-1.5	98	0.00
47	T	Bromodichloromethane	0.507	0.541	-6.7	104	0.00
48	T	Methyl methacrylate	0.374	0.370	1.1	96	0.00

Sample Results: **VN081401.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	0.008	0.007	12.5	87	0.00
50	S	Toluene-d8	1.145	1.168	-2.0	91	0.00
51	T	4-Methyl-2-Pentanone	0.491	0.478	2.6	95	0.00
52	CM	Toluene	0.891	0.899	-0.9#	97	0.00
53	T	t-1,3-Dichloropropene	0.549	0.573	-4.4	99	0.00
54	T	cis-1,3-Dichloropropene	0.592	0.613	-3.5	99	0.00
55	T	1,1,2-Trichloroethane	0.353	0.361	-2.3	101	0.00
56	T	Ethyl methacrylate	0.507	0.536	-5.7	97	0.00
57	T	1,3-Dichloropropane	0.617	0.628	-1.8	100	0.00
58	T	2-Chloroethyl Vinyl ether	0.273	0.299	-9.5	99	0.00
59	T	2-Hexanone	0.367	0.358	2.5	94	0.00
60	T	Dibromochloromethane	0.364	0.390	-7.1	102	0.00
61	T	1,2-Dibromoethane	0.367	0.362	1.4	96	0.00
62	S	4-Bromofluorobenzene	0.405	0.420	-3.7	92	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	97	0.00
64	T	Tetrachloroethene	0.391	0.397	-1.5	104	0.00
65	PM	Chlorobenzene	1.054	1.033	2.0	99	0.00
66	T	1,1,1,2-Tetrachloroethane	0.386	0.394	-2.1	102	0.00
67	C	Ethyl Benzene	1.898	1.918	-1.1#	98	0.00
68	T	m/p-Xylenes	0.714	0.721	-1.0	98	0.00
69	T	o-Xylene	0.692	0.706	-2.0	99	0.00
70	T	Styrene	1.097	1.167	-6.4	98	0.00
71	P	Bromoform	0.268	0.270	-0.7	97	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
73	T	Isopropylbenzene	4.037	4.048	-0.3	98	0.00
74	T	N-amyl acetate	1.694	1.670	1.4	95	0.00
75	P	1,1,2,2-Tetrachloroethane	1.246	1.117	10.4	96	0.00
76	T	1,2,3-Trichloropropane	1.181	1.075	9.0	96	0.00
77	T	Bromobenzene	0.957	0.889	7.1	99	0.00
78	T	n-propylbenzene	4.775	4.974	-4.2	99	0.00
79	T	2-Chlorotoluene	2.919	2.889	1.0	100	0.00
80	T	1,3,5-Trimethylbenzene	3.338	3.476	-4.1	100	0.00
81	T	trans-1,4-Dichloro-2-butene	0.423	0.475	-12.3	99	0.00
82	T	4-Chlorotoluene	2.883	2.921	-1.3	101	0.00
83	T	tert-Butylbenzene	2.861	2.877	-0.6	99	0.00
84	T	1,2,4-Trimethylbenzene	3.381	3.485	-3.1	100	0.00
85	T	sec-Butylbenzene	4.139	4.242	-2.5	98	0.00
86	T	p-Isopropyltoluene	3.320	3.518	-6.0	100	0.00
87	T	1,3-Dichlorobenzene	1.808	1.735	4.0	102	0.00
88	T	1,4-Dichlorobenzene	1.807	1.693	6.3	99	0.00
89	T	n-Butylbenzene	3.044	3.150	-3.5	98	0.00
90	T	Hexachloroethane	0.581	0.609	-4.8	101	0.00
91	T	1,2-Dichlorobenzene	1.734	1.649	4.9	101	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.267	0.246	7.9	94	0.00
93	T	1,2,4-Trichlorobenzene	0.927	0.920	0.8	98	0.00
94	T	Hexachlorobutadiene	0.383	0.350	8.6	95	0.00
95	T	Naphthalene	3.299	3.236	1.9	95	0.00

Sample Results: **VN081401.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	0.940	0.916	2.6	99	0.00

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

Sample Results: **VN081401.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	49.178	1.6	90	0.00
3	P	Chloromethane	50.000	42.567	14.9	90	0.00
4	C	Vinyl Chloride	50.000	44.014	12.0#	93	0.00
5	T	Bromomethane	50.000	41.269	17.5	88	0.00
6	T	Chloroethane	50.000	42.755	14.5	94	0.01
7	T	Trichlorofluoromethane	50.000	47.642	4.7	98	0.00
8	T	Diethyl Ether	50.000	47.320	5.4	96	0.01
9	T	1,1,2-Trichlorotrifluoroeth	50.000	46.575	6.8	100	0.01
10	T	Methyl Iodide	50.000	52.312	-4.6	100	0.00
11	T	Tert butyl alcohol	250.000	235.639	5.7	104	0.00
12	CM	1,1-Dichloroethene	50.000	44.770	10.5#	93	0.00
13	T	Acrolein	250.000	200.714	19.7	82	0.00
14	T	Allyl chloride	50.000	45.800	8.4	97	0.00
15	T	Acrylonitrile	250.000	224.065	10.4	95	0.00
16	T	Acetone	250.000	208.030	16.8	93	0.00
17	T	Carbon Disulfide	50.000	41.558	16.9	89	0.00
18	T	Methyl Acetate	50.000	53.538	-7.1	107	0.00
19	T	Methyl tert-butyl Ether	50.000	48.180	3.6	99	0.00
20	T	Methylene Chloride	50.000	48.662	2.7	97	-0.01
21	T	trans-1,2-Dichloroethene	50.000	44.605	10.8	96	0.00
22	T	Diisopropyl ether	50.000	50.961	-1.9	101	0.00
23	T	Vinyl Acetate	250.000	235.528	5.8	93	0.00
24	P	1,1-Dichloroethane	50.000	47.904	4.2	100	0.00
25	T	2-Butanone	250.000	216.106	13.6	92	0.00
26	T	2,2-Dichloropropane	50.000	47.603	4.8	96	0.00
27	T	cis-1,2-Dichloroethene	50.000	46.327	7.3	100	0.00
28	T	Bromochloromethane	50.000	49.906	0.2	105	0.00
29	T	Tetrahydrofuran	250.000	219.709	12.1	94	0.00
30	C	Chloroform	50.000	49.390	1.2#	102	0.00
31	T	Cyclohexane	50.000	41.798	16.4	91	0.00
32	T	1,1,1-Trichloroethane	50.000	49.238	1.5	102	0.00
33	S	1,2-Dichloroethane-d4	50.000	50.027	-0.1	95	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	96	0.00
35	S	Dibromofluoromethane	50.000	52.306	-4.6	95	0.00
36	T	1,1-Dichloropropene	50.000	49.614	0.8	98	0.00
37	T	Ethyl Acetate	50.000	46.497	7.0	91	0.00
38	T	Carbon Tetrachloride	50.000	52.959	-5.9	101	0.00
39	T	Methylcyclohexane	50.000	47.628	4.7	90	0.00
40	TM	Benzene	50.000	48.881	2.2	97	0.00
41	T	Methacrylonitrile	50.000	48.051	3.9	98	0.00
42	TM	1,2-Dichloroethane	50.000	51.168	-2.3	101	0.00
43	T	Isopropyl Acetate	50.000	48.004	4.0	96	0.00
44	TM	Trichloroethene	50.000	49.849	0.3	97	0.00
45	C	1,2-Dichloropropane	50.000	51.162	-2.3#	102	0.00
46	T	Dibromomethane	50.000	50.656	-1.3	98	0.00
47	T	Bromodichloromethane	50.000	53.368	-6.7	104	0.00
48	T	Methyl methacrylate	50.000	49.517	1.0	96	0.00

Sample Results: **VN081401.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	826.983	17.3	87	0.00
50	S	Toluene-d8	50.000	51.018	-2.0	91	0.00
51	T	4-Methyl-2-Pentanone	250.000	243.414	2.6	95	0.00
52	CM	Toluene	50.000	50.434	-0.9#	97	0.00
53	T	t-1,3-Dichloropropene	50.000	52.204	-4.4	99	0.00
54	T	cis-1,3-Dichloropropene	50.000	51.757	-3.5	99	0.00
55	T	1,1,2-Trichloroethane	50.000	51.096	-2.2	101	0.00
56	T	Ethyl methacrylate	50.000	52.828	-5.7	97	0.00
57	T	1,3-Dichloropropane	50.000	50.894	-1.8	100	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	273.888	-9.6	99	0.00
59	T	2-Hexanone	250.000	243.758	2.5	94	0.00
60	T	Dibromochloromethane	50.000	53.570	-7.1	102	0.00
61	T	1,2-Dibromoethane	50.000	49.309	1.4	96	0.00
62	S	4-Bromofluorobenzene	50.000	51.830	-3.7	92	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	97	0.00
64	T	Tetrachloroethene	50.000	50.682	-1.4	104	0.00
65	PM	Chlorobenzene	50.000	49.033	1.9	99	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	51.137	-2.3	102	0.00
67	C	Ethyl Benzene	50.000	50.522	-1.0#	98	0.00
68	T	m/p-Xylenes	100.000	100.923	-0.9	98	0.00
69	T	o-Xylene	50.000	50.959	-1.9	99	0.00
70	T	Styrene	50.000	53.182	-6.4	98	0.00
71	P	Bromoform	50.000	50.362	-0.7	97	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	100	0.00
73	T	Isopropylbenzene	50.000	50.134	-0.3	98	0.00
74	T	N-amyl acetate	50.000	49.281	1.4	95	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	44.829	10.3	96	0.00
76	T	1,2,3-Trichloropropane	50.000	45.510	9.0	96	0.00
77	T	Bromobenzene	50.000	46.441	7.1	99	0.00
78	T	n-propylbenzene	50.000	52.077	-4.2	99	0.00
79	T	2-Chlorotoluene	50.000	49.494	1.0	100	0.00
80	T	1,3,5-Trimethylbenzene	50.000	52.069	-4.1	100	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	56.140	-12.3	99	0.00
82	T	4-Chlorotoluene	50.000	50.651	-1.3	101	0.00
83	T	tert-Butylbenzene	50.000	50.268	-0.5	99	0.00
84	T	1,2,4-Trimethylbenzene	50.000	51.532	-3.1	100	0.00
85	T	sec-Butylbenzene	50.000	51.239	-2.5	98	0.00
86	T	p-Isopropyltoluene	50.000	52.991	-6.0	100	0.00
87	T	1,3-Dichlorobenzene	50.000	47.996	4.0	102	0.00
88	T	1,4-Dichlorobenzene	50.000	46.863	6.3	99	0.00
89	T	n-Butylbenzene	50.000	51.736	-3.5	98	0.00
90	T	Hexachloroethane	50.000	52.429	-4.9	101	0.00
91	T	1,2-Dichlorobenzene	50.000	47.533	4.9	101	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	46.211	7.6	94	0.00
93	T	1,2,4-Trichlorobenzene	50.000	49.636	0.7	98	0.00
94	T	Hexachlorobutadiene	50.000	45.741	8.5	95	0.00
95	T	Naphthalene	50.000	49.053	1.9	95	0.00

Sample Results: **VN081401.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081401.D
Acq On : 14 Mar 2024 11:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 15 01:09:04 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
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	48.728	2.5	99	0.00

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

CHEMTECH

QC SAMPLE DATA

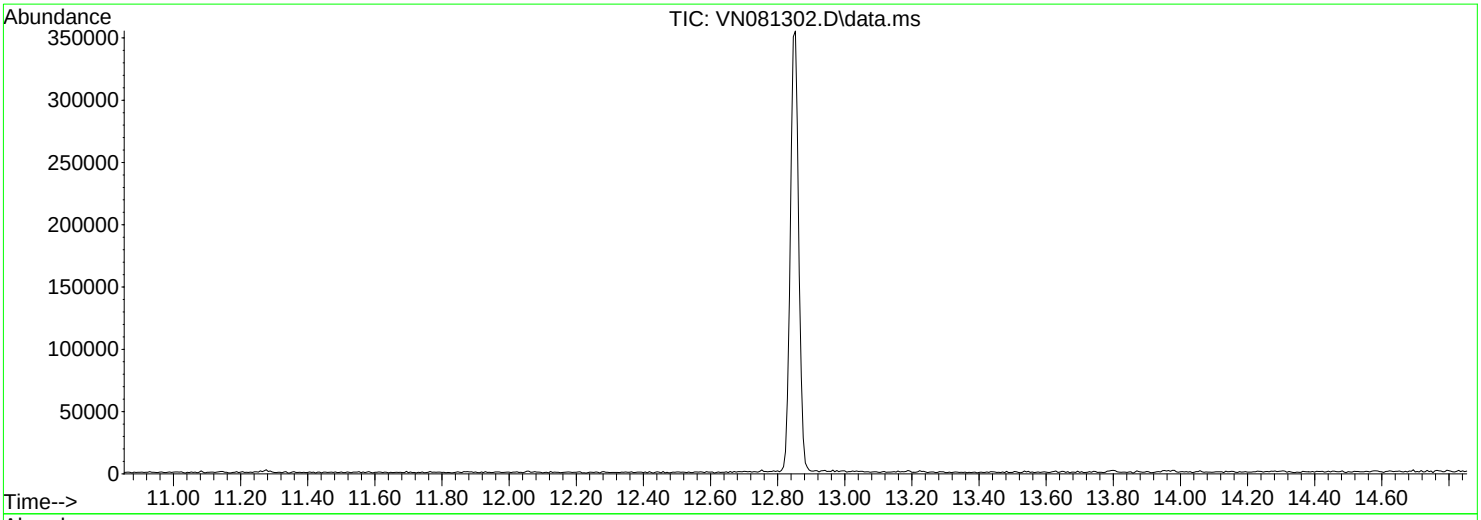
Sample Results: **VN081302.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN030524\
Data File : VN081302.D
Acq On : 05 Mar 2024 09:31
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Title : SW846 8260
Last Update : Wed Mar 06 03:12:57 2024



AutoFind: Scans 1852, 1853, 1854; Background Corrected with Scan 1843

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	12805	PASS
75	95	30	60	52.9	35048	PASS
95	95	100	100	100.0	66312	PASS
96	95	5	9	6.1	4059	PASS
173	174	0.00	2	1.1	483	PASS
174	95	50	100	69.3	45944	PASS
175	174	5	9	7.2	3298	PASS
176	174	95	101	96.9	44523	PASS
177	176	5	9	5.5	2438	PASS

Average of 12.847 to 12.859 min.: VN081302.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	339	48.10	229	61.95	4287	71.70	7
36.00	510	49.00	2987	62.90	2479	71.95	49
36.95	3760	50.00	12805	63.10	1448	72.95	327
37.95	3745	50.95	3832	64.00	516	74.00	1336
39.00	1750	51.90	211	65.05	606	75.00	35048
42.10	63	52.80	60	66.80	312	76.00	3796
43.75	491	55.05	216	67.10	98	76.85	295
44.95	842	55.85	1519	68.00	7645	77.10	140
47.00	686	57.05	2064	68.95	6541	77.85	412
47.20	121	59.90	712	69.80	387	78.90	3039
47.75	309	60.95	3946	70.15	218	79.80	1182

Instrument :
MSVOA_N
ClientSampleId :
BFB

Average of 12.847 to 12.859 min.: VN081302.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.90	3502	96.95	187	127.95	341	155.00	94
81.75	947	103.80	450	129.65	133	156.90	118
83.10	85	104.80	74	130.00	105	169.70	90
87.00	2732	105.90	459	134.70	58	169.90	67
87.95	2741	110.65	154	137.00	84	171.70	455
90.75	537	112.90	70	140.90	897	172.05	484
91.90	2391	115.75	274	142.80	1050	172.90	483
93.00	2923	116.80	580	144.90	203	173.95	45944
93.95	9074	117.75	331	146.95	183	174.90	3298
95.00	66312	118.70	225	147.65	274	175.90	44523
95.95	4059	118.85	304	149.70	87	176.90	2438

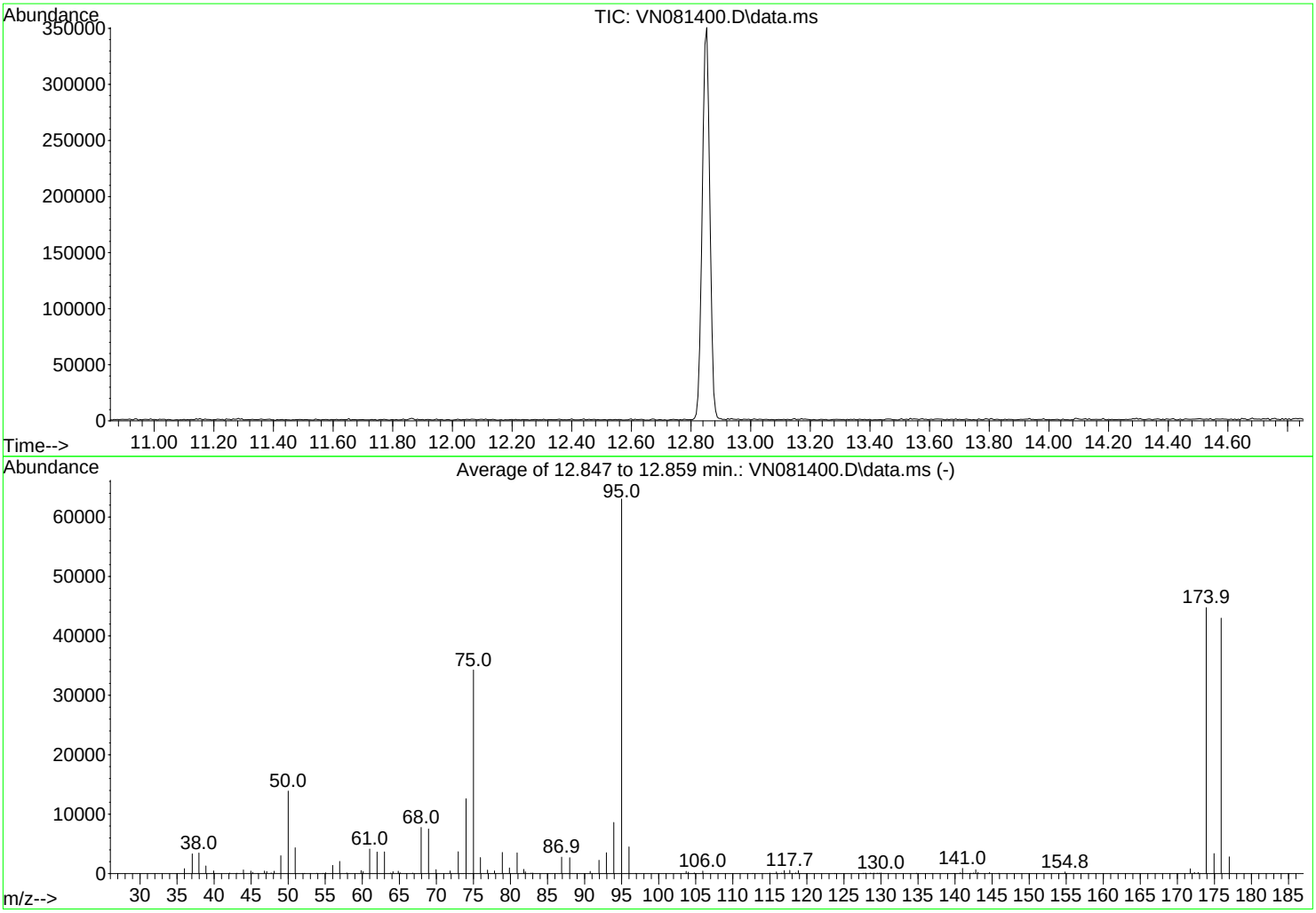
Sample Results: **VN081400.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081400.D
Acq On : 14 Mar 2024 10:49
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Title : SW846 8260
Last Update : Wed Mar 06 03:12:57 2024



AutoFind: Scans 1852, 1853, 1854; Background Corrected with Scan 1843

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.1	13902	PASS
75	95	30	60	54.4	34264	PASS
95	95	100	100	100.0	63043	PASS
96	95	5	9	7.1	4502	PASS
173	174	0.00	2	0.4	201	PASS
174	95	50	100	71.0	44757	PASS
175	174	5	9	7.5	3368	PASS
176	174	95	101	96.1	42997	PASS
177	176	5	9	6.6	2830	PASS

Average of 12.847 to 12.859 min.: VN081400.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	839	46.80	431	54.70	60	64.15	32
37.05	3338	47.10	350	55.05	147	64.85	40
37.95	3461	47.70	127	56.00	1377	65.10	14
38.90	1288	48.10	413	56.95	2058	66.80	10
39.95	455	49.00	3005	57.90	119	67.95	7782
42.10	95	50.00	13902	59.85	505	68.95	7521
43.10	79	50.95	4360	60.10	327	69.95	678
43.95	629	51.90	60	61.00	4146	71.85	453
44.95	425	52.20	55	62.00	3642	72.95	3687
45.20	207	53.00	51	63.00	3668	74.00	12611
45.90	57	53.90	84	63.80	90	75.00	34264

Instrument :
MSVOA_N
ClientSampleId :
BFB

Average of 12.847 to 12.859 min.: VN081400.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
75.95	2700	88.00	2680	105.95	422	127.90	108
76.90	604	90.75	395	112.70	52	128.60	105
77.85	454	91.95	2240	115.00	97	129.05	106
78.90	3566	92.95	3527	115.90	283	129.50	93
79.85	968	93.95	8611	116.60	108	129.80	95
80.90	3499	95.00	63043	116.95	513	130.00	121
81.80	718	96.00	4502	117.70	560	134.80	64
82.00	301	96.90	58	118.50	126	136.90	62
82.80	102	103.70	379	118.85	499	139.90	52
83.00	106	104.00	239	123.80	55	140.70	155
86.90	2778	104.80	121	127.60	65	141.00	884

Average of 12.847 to 12.859 min.: VN081400.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.10	70	174.95	3368				
142.50	135	175.90	42997				
142.80	659	177.00	2830				
143.10	202						
144.65	201						
145.90	69						
154.85	276						
171.75	814						
172.30	188						
172.80	201						
173.90	44757						

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBL01	SDG No.:	P1747
Lab Sample ID:	VN0314WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081403.D	1		03/14/24 12:20	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.34	U	0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	1.40	U	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.60	U	0.60	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
74-97-5	Bromochloromethane	0.18	U	0.18	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.18	U	0.18	1.00	ug/L

Raw Data: **VN081403.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBL01	SDG No.:	P1747
Lab Sample ID:	VN0314WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081403.D	1		03/14/24 12:20	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.4		74 - 125	105%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	51.8		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.9		64 - 133	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	317000	8.23			
540-36-3	1,4-Difluorobenzene	584000	9.106			
3114-55-4	Chlorobenzene-d5	502000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	188000	13.794			

Raw Data: **VN081403.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBL01	SDG No.:	P1747
Lab Sample ID:	VN0314WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081403.D	1		03/14/24 12:20	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081403.D
Acq On : 14 Mar 2024 12:20
Operator : JC\MD
Sample : VN0314WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Quant Time: Mar 15 01:10:27 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	317492	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	583725	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	501625	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	187883	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	240724	52.439	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 104.880%			
35) Dibromofluoromethane	8.165	113	184528	51.598	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.200%			
50) Toluene-d8	10.571	98	692484	51.798	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 103.600%			
62) 4-Bromofluorobenzene	12.853	95	212308	44.932	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 89.860%			

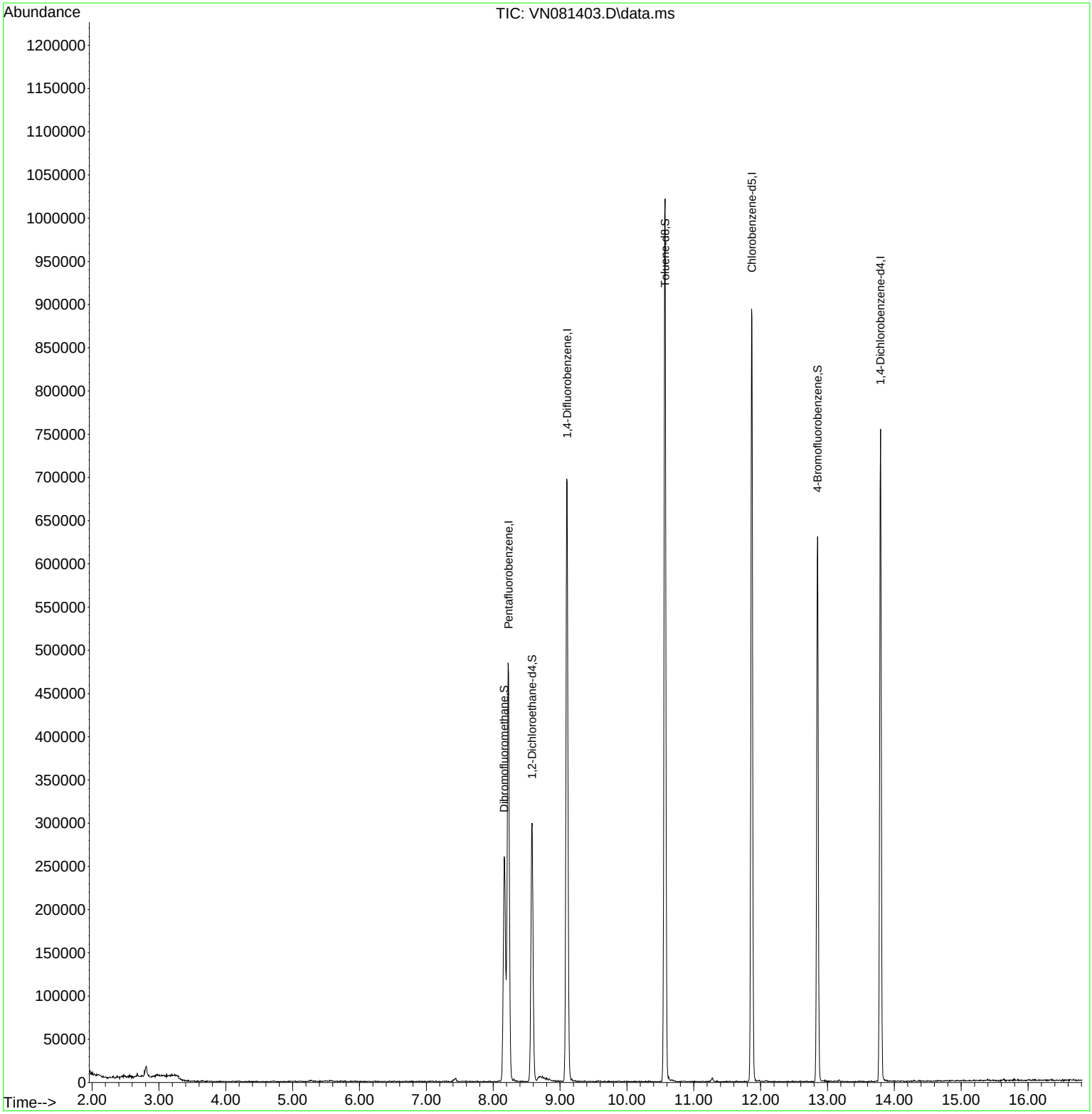
Target Compounds Qvalue

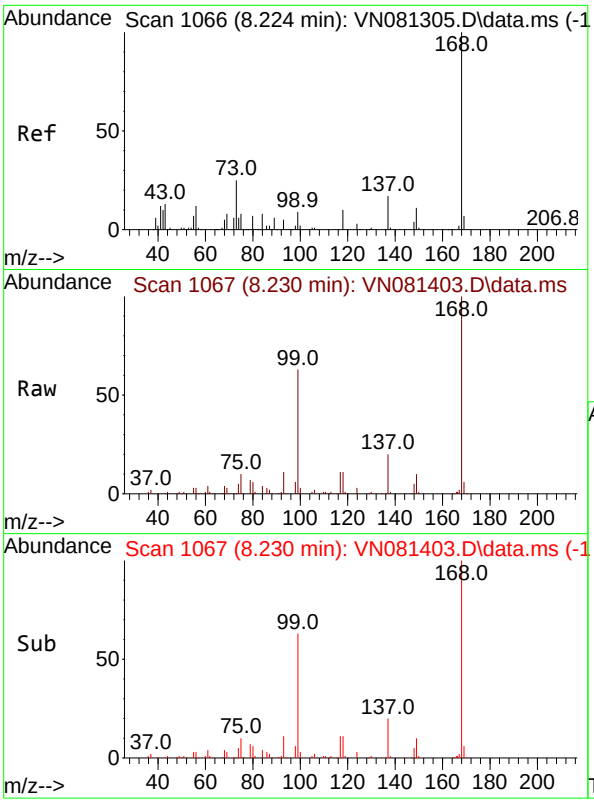
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081403.D
Acq On : 14 Mar 2024 12:20
Operator : JC\MD
Sample : VN0314WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Quant Time: Mar 15 01:10:27 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration



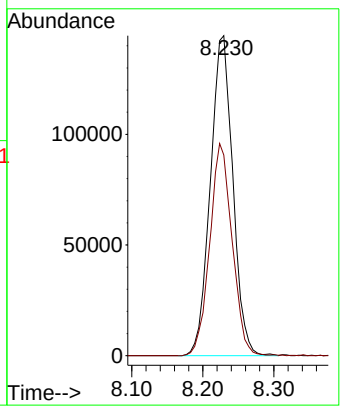


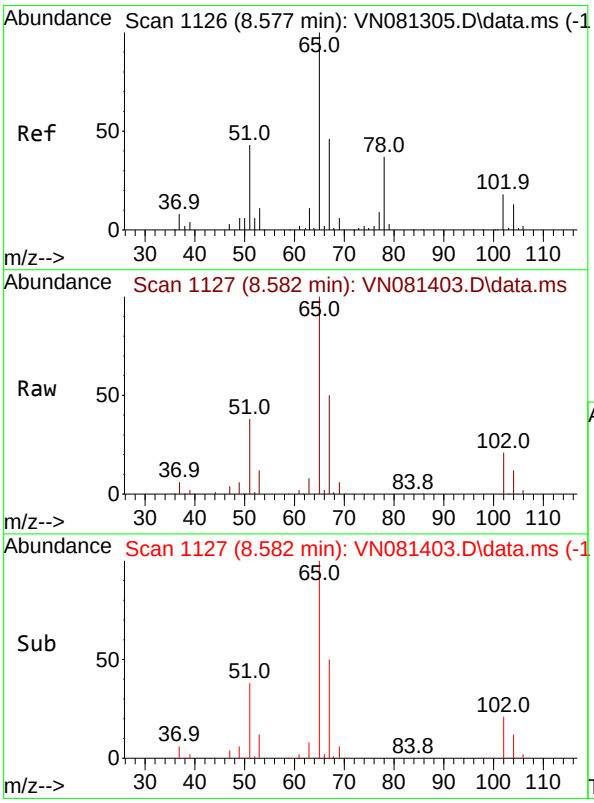
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN081403.D
Acq: 14 Mar 2024 12:20

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Tgt Ion:168 Resp: 317492

Ion	Ratio	Lower	Upper
168	100		
99	62.7	59.9	89.9

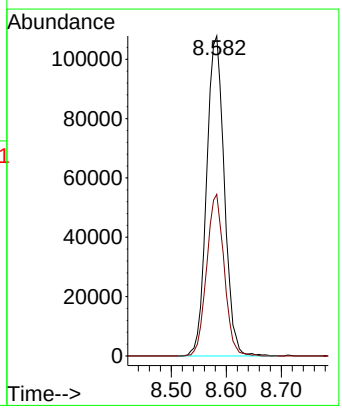


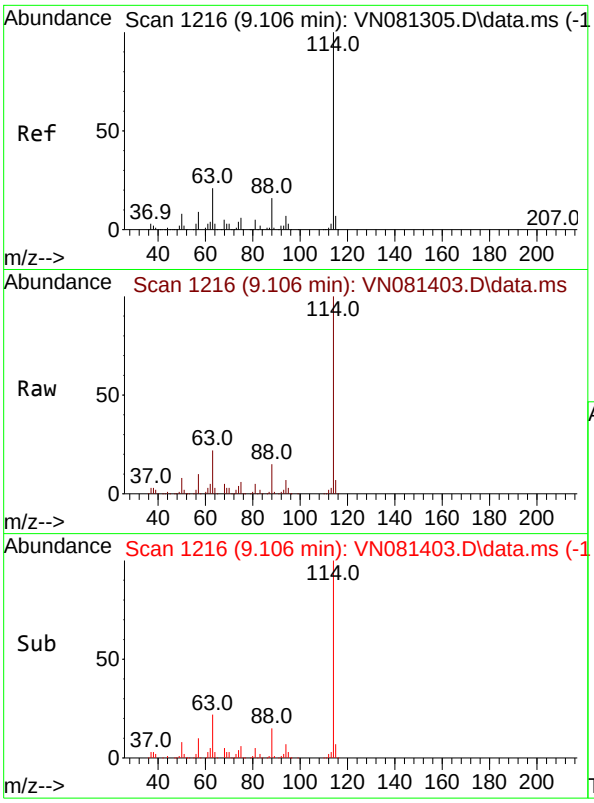


#33
1,2-Dichloroethane-d4
Concen: 52.439 ug/l
RT: 8.582 min Scan# 1127
Delta R.T. 0.006 min
Lab File: VN081403.D
Acq: 14 Mar 2024 12:20

Tgt Ion: 65 Resp: 240724

Ion	Ratio	Lower	Upper
65	100		
67	50.2	0.0	102.4



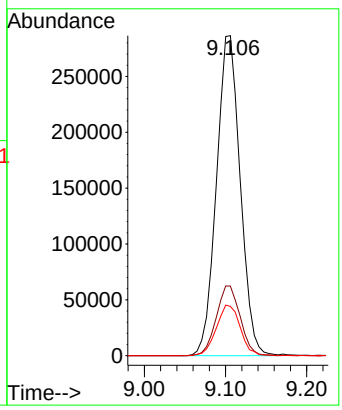


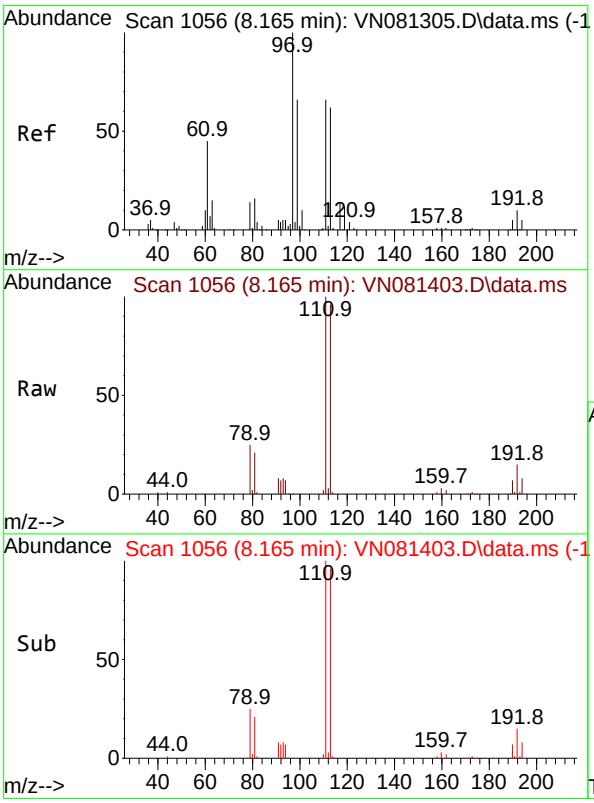
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN081403.D
Acq: 14 Mar 2024 12:20

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Tgt Ion:114 Resp: 583725

Ion	Ratio	Lower	Upper
114	100		
63	21.7	0.0	48.0
88	15.4	0.0	34.8

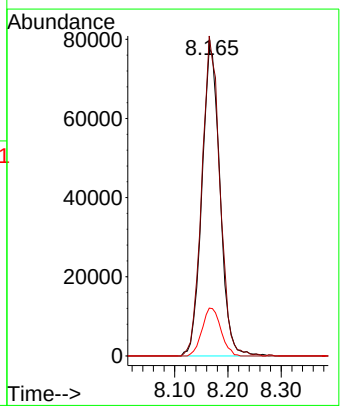


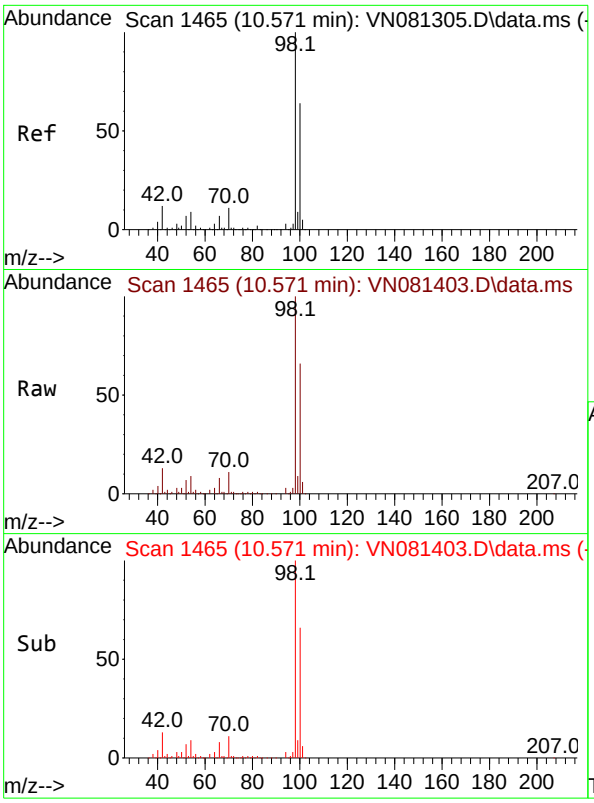


#35
Dibromofluoromethane
Concen: 51.598 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN081403.D
Acq: 14 Mar 2024 12:20

Tgt Ion:113 Resp: 184528

Ion	Ratio	Lower	Upper
113	100		
111	103.2	82.2	123.4
192	16.1	12.5	18.7



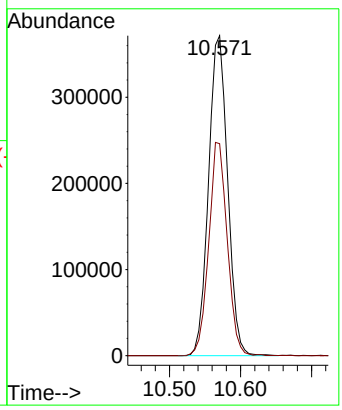


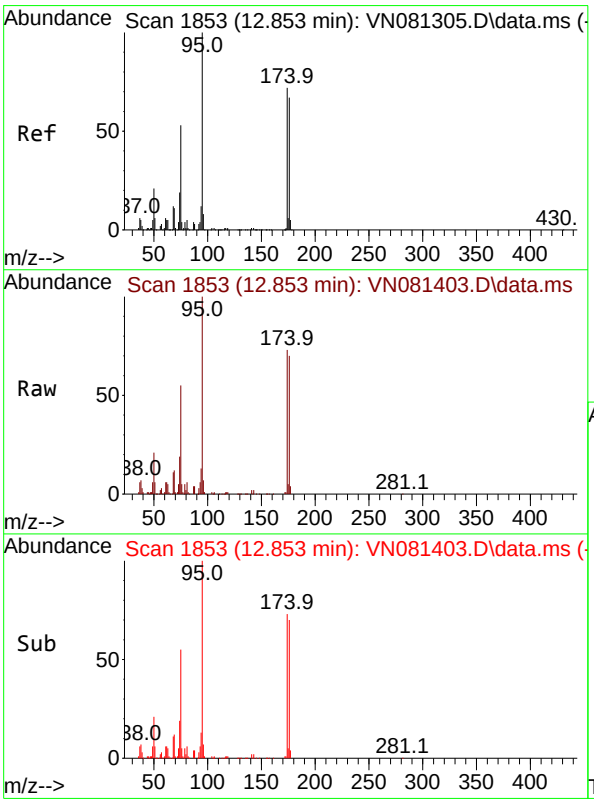
#50
Toluene-d8
Concen: 51.798 ug/l
RT: 10.571 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN081403.D
Acq: 14 Mar 2024 12:20

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Tgt Ion: 98 Resp: 692484

Ion	Ratio	Lower	Upper
98	100		
100	64.7	51.4	77.0

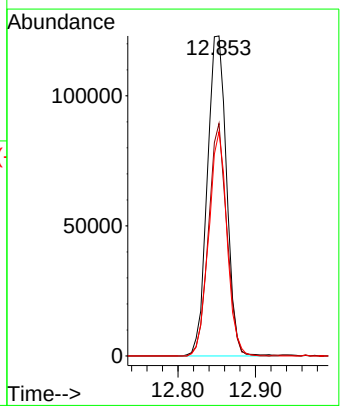


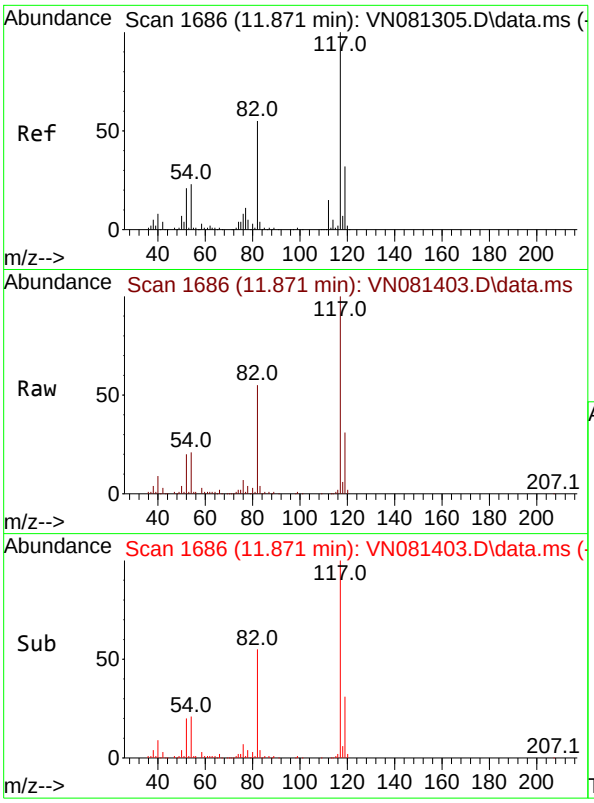


#62
4-Bromofluorobenzene
Concen: 44.932 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN081403.D
Acq: 14 Mar 2024 12:20

Tgt Ion: 95 Resp: 212308

Ion	Ratio	Lower	Upper
95	100		
174	69.0	0.0	120.4
176	66.6	0.0	121.0



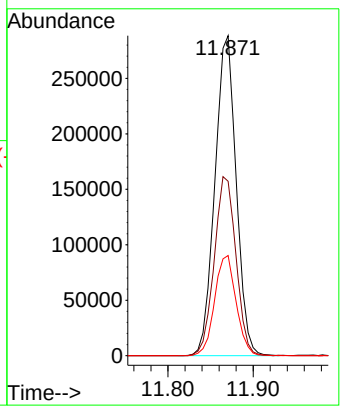


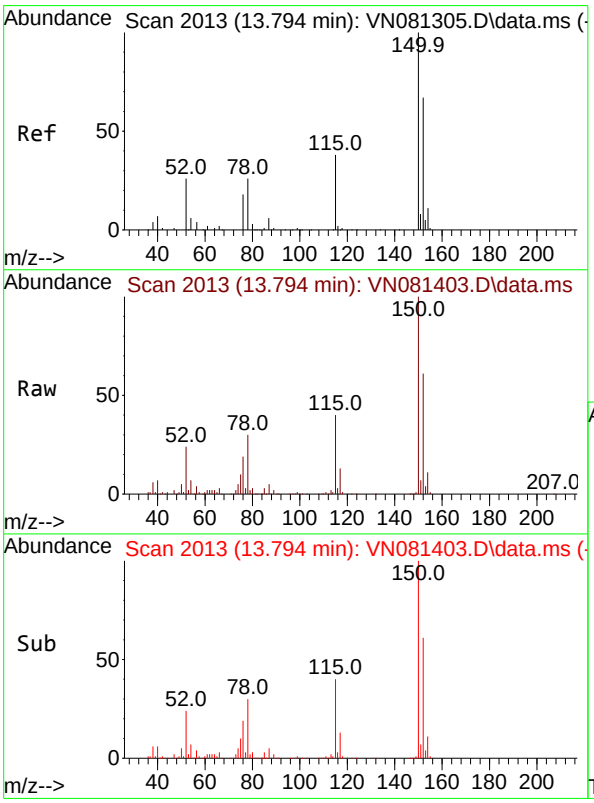
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN081403.D
Acq: 14 Mar 2024 12:20

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Tgt Ion:117 Resp: 501625

Ion	Ratio	Lower	Upper
117	100		
82	54.5	52.7	79.1
119	31.3	25.3	37.9

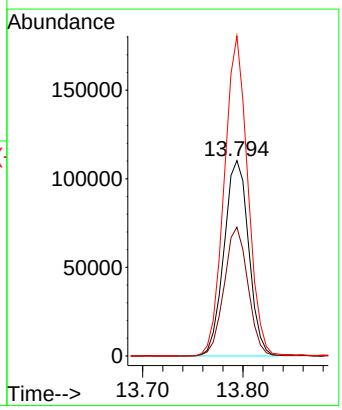




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. -0.000 min
Lab File: VN081403.D
Acq: 14 Mar 2024 12:20

Tgt Ion:152 Resp: 187883

Ion	Ratio	Lower	Upper
152	100		
115	63.9	32.3	96.8
150	157.1	0.0	339.8



Sample Results: **VN081403.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081403.D
Acq On : 14 Mar 2024 12:20
Operator : JC\MD
Sample : VN0314WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Title : SW846 8260

Signal : TIC: VN081403.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.812	139	146	151	rVB2	11022	21860	1.16%	0.228%
2	8.165	1046	1056	1061	rBV	260078	619607	32.85%	6.455%
3	8.224	1061	1066	1077	rVB	483218	1049360	55.64%	10.932%
4	8.582	1116	1127	1139	rBV	299229	675823	35.83%	7.040%
5	9.100	1205	1215	1226	rBV	697450	1430421	75.84%	14.901%
6	10.571	1456	1465	1478	rBV	1021100	1886073	100.00%	19.648%
7	11.865	1677	1685	1695	rBV	893889	1589427	84.27%	16.558%
8	12.853	1845	1853	1862	rBV	630194	1064012	56.41%	11.084%
9	13.794	2005	2013	2023	rBV	754569	1262628	66.94%	13.153%

Sum of corrected areas: 9599211

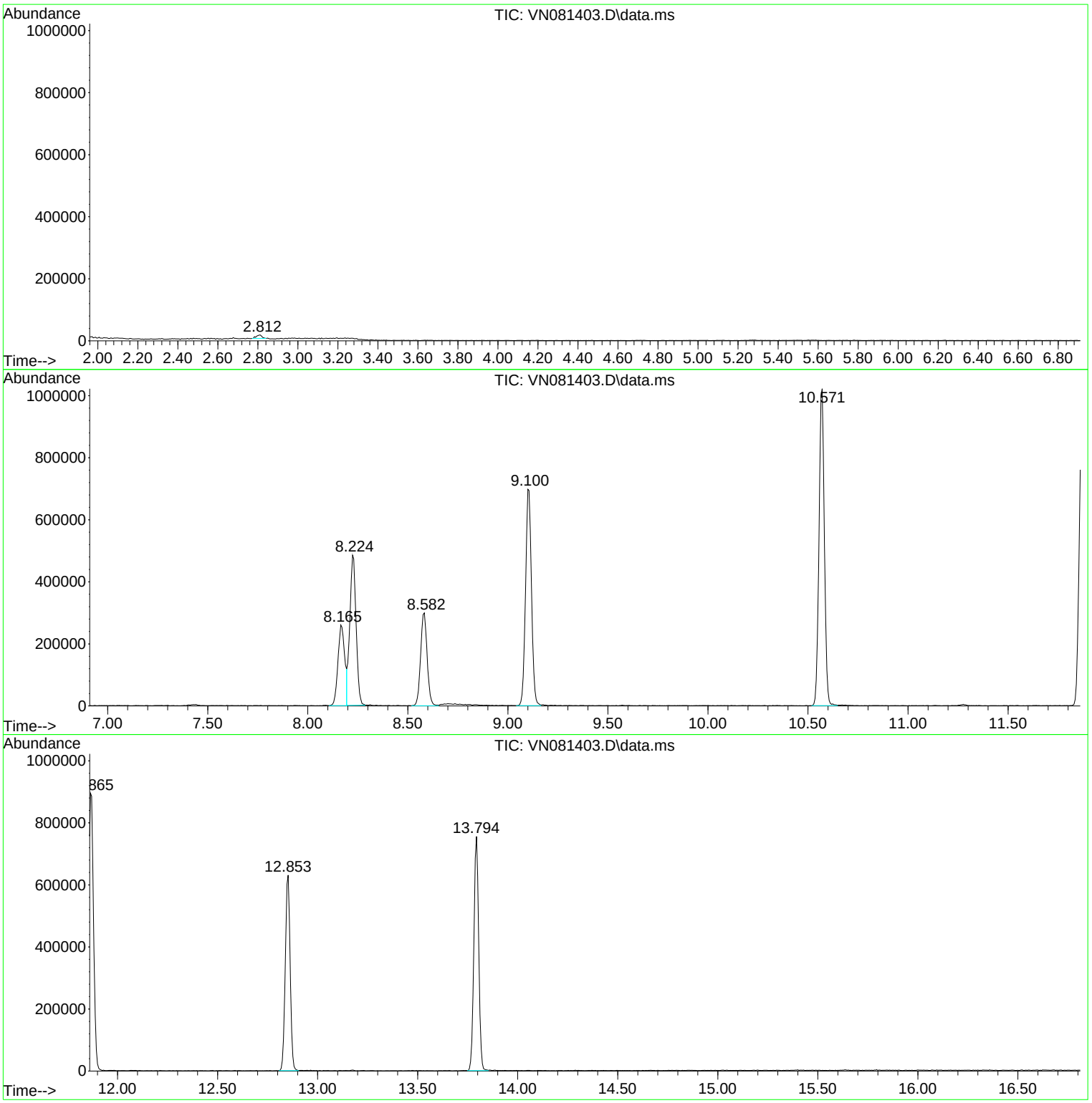
Sample Results: **VN081403.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081403.D
Acq On : 14 Mar 2024 12:20
Operator : JC\MD
Sample : VN0314WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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



Library Search Compound Report

Sample Results: **VN081403.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081403.D
Acq On : 14 Mar 2024 12:20
Operator : JC\MD
Sample : VN0314WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

No Library Search Compounds Detected
****

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081403.D
Acq On : 14 Mar 2024 12:20
Operator : JC\MD
Sample : VN0314WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260

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

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

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBS01	SDG No.:	P1747
Lab Sample ID:	VN0314WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081404.D	1		03/14/24 12:44	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	20.2		0.21	1.00	ug/L
74-87-3	Chloromethane	18.4		0.35	1.00	ug/L
75-01-4	Vinyl Chloride	18.1		0.34	1.00	ug/L
74-83-9	Bromomethane	18.5		1.40	5.00	ug/L
75-00-3	Chloroethane	19.2		0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	19.6		0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.7		0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	19.1		0.26	1.00	ug/L
67-64-1	Acetone	100		1.40	5.00	ug/L
75-15-0	Carbon Disulfide	17.0		0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.1		0.16	1.00	ug/L
79-20-9	Methyl Acetate	23.5		0.60	1.00	ug/L
75-09-2	Methylene Chloride	20.4		0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	17.6		0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	20.0		0.23	1.00	ug/L
110-82-7	Cyclohexane	18.9		1.60	5.00	ug/L
78-93-3	2-Butanone	100		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	20.4		0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.5		0.25	1.00	ug/L
74-97-5	Bromochloromethane	22.0		0.18	1.00	ug/L
67-66-3	Chloroform	20.8		0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	20.6		0.19	1.00	ug/L
108-87-2	Methylcyclohexane	18.3		0.19	1.00	ug/L
71-43-2	Benzene	19.2		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	20.6		0.24	1.00	ug/L
79-01-6	Trichloroethene	19.0		0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.7		0.19	1.00	ug/L
75-27-4	Bromodichloromethane	20.5		0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		0.75	5.00	ug/L
108-88-3	Toluene	19.8		0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.7		0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.7		0.18	1.00	ug/L

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBS01	SDG No.:	P1747
Lab Sample ID:	VN0314WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081404.D	1		03/14/24 12:44	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	20.0		0.21	1.00	ug/L
591-78-6	2-Hexanone	100		1.10	5.00	ug/L
124-48-1	Dibromochloromethane	21.0		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	19.8		0.16	1.00	ug/L
127-18-4	Tetrachloroethene	19.7		0.25	1.00	ug/L
108-90-7	Chlorobenzene	19.8		0.13	1.00	ug/L
100-41-4	Ethyl Benzene	19.3		0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	38.2		0.31	2.00	ug/L
95-47-6	o-Xylene	18.9		0.14	1.00	ug/L
100-42-5	Styrene	20.1		0.16	1.00	ug/L
75-25-2	Bromoform	20.0		0.21	1.00	ug/L
98-82-8	Isopropylbenzene	19.8		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.5		0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.6		0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.1		0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.0		0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.8		0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	18.7		0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	18.6		0.51	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.3		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	53.2		75 - 124	106%	SPK: 50
2037-26-5	Toluene-d8	52.3		86 - 113	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.4		64 - 133	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	300000	8.23			
540-36-3	1,4-Difluorobenzene	553000	9.106			
3114-55-4	Chlorobenzene-d5	503000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	222000	13.794			

Raw Data: **VN081404.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBS01	SDG No.:	P1747
Lab Sample ID:	VN0314WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081404.D	1		03/14/24 12:44	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081404.D
Acq On : 14 Mar 2024 12:44
Operator : JC\MD
Sample : VN0314WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 01:10:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	299990	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	553441	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	502583	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	222348	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	231043	53.266	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 106.540%			
35) Dibromofluoromethane	8.171	113	180363	53.193	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 106.380%			
50) Toluene-d8	10.571	98	663423	52.339	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 104.680%			
62) 4-Bromofluorobenzene	12.853	95	230444	51.439	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 102.880%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	80288	20.190	ug/l	92
3) Chloromethane	2.365	50	79132	18.422	ug/l	94
4) Vinyl Chloride	2.518	62	80957	18.066	ug/l	94
5) Bromomethane	2.959	94	55239	18.457	ug/l	97
6) Chloroethane	3.124	64	59099	19.202	ug/l	90
7) Trichlorofluoromethane	3.501	101	130146	19.632	ug/l	99
8) Diethyl Ether	3.965	74	43763	18.738	ug/l	87
9) 1,1,2-Trichlorotrifluo...	4.377	101	74272	19.675	ug/l	94
10) Methyl Iodide	4.595	142	68165	19.732	ug/l	93
11) Tert butyl alcohol	5.518	59	72736	95.901	ug/l	99
12) 1,1-Dichloroethene	4.342	96	66761	19.096	ug/l	97
13) Acrolein	4.177	56	72183	80.373	ug/l	92
14) Allyl chloride	5.018	41	97243	18.743	ug/l	89
15) Acrylonitrile	5.724	53	194270	98.047	ug/l	97
16) Acetone	4.424	43	154304	100.406	ug/l	99
17) Carbon Disulfide	4.712	76	169632	17.001	ug/l	100
18) Methyl Acetate	5.024	43	103211	23.457	ug/l	94
19) Methyl tert-butyl Ether	5.795	73	226965	19.142	ug/l	92
20) Methylene Chloride	5.277	84	79150	20.369	ug/l	95
21) trans-1,2-Dichloroethene	5.795	96	69375	17.601	ug/l	90
22) Diisopropyl ether	6.677	45	242532	21.046	ug/l #	94
23) Vinyl Acetate	6.600	43	891706	95.250	ug/l	96
24) 1,1-Dichloroethane	6.565	63	141099	20.002	ug/l	95
25) 2-Butanone	7.483	43	257823	100.177	ug/l	99
26) 2,2-Dichloropropane	7.489	77	119907	19.233	ug/l	99
27) cis-1,2-Dichloroethene	7.489	96	87208	19.515	ug/l	87
28) Bromochloromethane	7.812	49	66278	21.958	ug/l #	75
29) Tetrahydrofuran	7.841	42	164513	93.740	ug/l #	86
30) Chloroform	7.965	83	152604	20.847	ug/l	100
31) Cyclohexane	8.265	56	124293	18.927	ug/l #	84
32) 1,1,1-Trichloroethane	8.171	97	133477	20.628	ug/l	90
36) 1,1-Dichloropropene	8.377	75	105996	19.377	ug/l	97
37) Ethyl Acetate	7.559	43	104390	19.522	ug/l	98
38) Carbon Tetrachloride	8.365	117	112225	20.384	ug/l	91
39) Methylcyclohexane	9.600	83	114900	18.251	ug/l	92
40) Benzene	8.606	78	313150	19.178	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081404.D
Acq On : 14 Mar 2024 12:44
Operator : JC\MD
Sample : VN0314WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 01:10:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	7.777	41	57068	18.898 ug/l		94
42) 1,2-Dichloroethane	8.671	62	118460	20.576 ug/l		98
43) Isopropyl Acetate	8.688	43	184442	19.706 ug/l		98
44) Trichloroethene	9.353	130	78128	18.972 ug/l		92
45) 1,2-Dichloropropane	9.624	63	80867	19.715 ug/l		96
46) Dibromomethane	9.712	93	57388	19.849 ug/l		92
47) Bromodichloromethane	9.888	83	115147	20.515 ug/l	#	95
48) Methyl methacrylate	9.677	41	82389	19.915 ug/l		91
49) 1,4-Dioxane	9.694	88	33059	362.542 ug/l	#	87
51) 4-Methyl-2-Pentanone	10.447	43	549375	101.088 ug/l		97
52) Toluene	10.630	92	195107	19.781 ug/l		98
53) t-1,3-Dichloropropene	10.835	75	119358	19.654 ug/l		99
54) cis-1,3-Dichloropropene	10.312	75	129154	19.701 ug/l		95
55) 1,1,2-Trichloroethane	11.018	97	78137	19.977 ug/l		97
56) Ethyl methacrylate	10.877	69	112737	20.072 ug/l		92
57) 1,3-Dichloropropane	11.165	76	135950	19.915 ug/l		98
58) 2-Chloroethyl Vinyl ether	10.165	63	274881	90.984 ug/l		92
59) 2-Hexanone	11.194	43	408083	100.443 ug/l		98
60) Dibromochloromethane	11.359	129	84765	21.042 ug/l		98
61) 1,2-Dibromoethane	11.471	107	80281	19.781 ug/l		96
64) Tetrachloroethene	11.106	164	77493	19.692 ug/l		91
65) Chlorobenzene	11.894	112	209206	19.754 ug/l		93
66) 1,1,1,2-Tetrachloroethane	11.965	131	77631	20.032 ug/l		99
67) Ethyl Benzene	11.965	91	368170	19.299 ug/l		99
68) m/p-Xylenes	12.076	106	274324	38.208 ug/l		100
69) o-Xylene	12.400	106	131679	18.924 ug/l		99
70) Styrene	12.412	104	221488	20.086 ug/l		98
71) Bromoform	12.576	173	53940	20.048 ug/l	#	95
73) Isopropylbenzene	12.694	105	355392	19.794 ug/l		99
74) N-amyl acetate	12.494	43	145704	19.341 ug/l	#	92
75) 1,1,2,2-Tetrachloroethane	12.941	83	108232	19.533 ug/l		99
76) 1,2,3-Trichloropropane	12.994	75	101608m	19.347 ug/l		
77) Bromobenzene	12.982	156	79920	18.774 ug/l		83
78) n-propylbenzene	13.035	91	432606	20.371 ug/l		98
79) 2-Chlorotoluene	13.129	91	255325	19.670 ug/l		94
80) 1,3,5-Trimethylbenzene	13.176	105	300718	20.262 ug/l		98
81) trans-1,4-Dichloro-2-b...	12.741	75	36265	19.271 ug/l		85
82) 4-Chlorotoluene	13.223	91	251699	19.631 ug/l		96
83) tert-Butylbenzene	13.441	119	254936	20.036 ug/l		95
84) 1,2,4-Trimethylbenzene	13.482	105	303116	20.158 ug/l		98
85) sec-Butylbenzene	13.618	105	370233	20.113 ug/l		97
86) p-Isopropyltoluene	13.729	119	296627	20.094 ug/l		97
87) 1,3-Dichlorobenzene	13.735	146	149717	18.626 ug/l		97
88) 1,4-Dichlorobenzene	13.812	146	153788	19.141 ug/l		99
89) n-Butylbenzene	14.059	91	256072	18.915 ug/l		97
90) Hexachloroethane	14.335	117	51867	20.068 ug/l		99
91) 1,2-Dichlorobenzene	14.106	146	146178	18.954 ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.723	75	22325	18.828 ug/l		86
93) 1,2,4-Trichlorobenzene	15.394	180	76951	18.667 ug/l		97
94) Hexachlorobutadiene	15.506	225	29645	17.404 ug/l		98
95) Naphthalene	15.641	128	270026	18.408 ug/l		98
96) 1,2,3-Trichlorobenzene	15.841	180	77913	18.637 ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081404.D
Acq On : 14 Mar 2024 12:44
Operator : JC\MD
Sample : VN0314WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 01:10:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

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

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

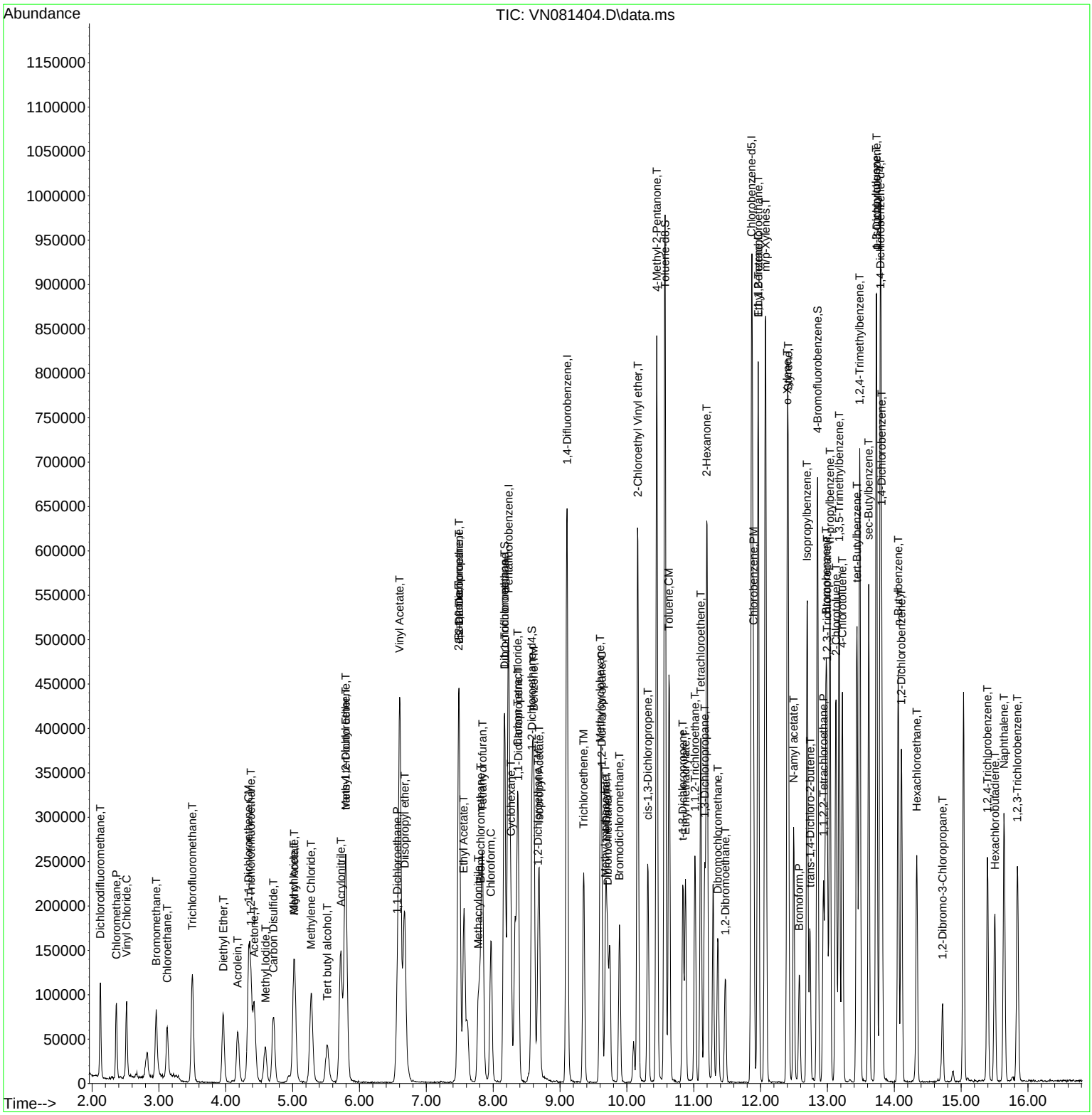
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081404.D
Acq On : 14 Mar 2024 12:44
Operator : JC\MD
Sample : VN0314WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 01:10:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024



Raw Data: **VN081405.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBSD01	SDG No.:	P1747
Lab Sample ID:	VN0314WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081405.D	1		03/14/24 13:18	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	20.6		0.21	1.00	ug/L
74-87-3	Chloromethane	17.5		0.35	1.00	ug/L
75-01-4	Vinyl Chloride	18.0		0.34	1.00	ug/L
74-83-9	Bromomethane	18.1		1.40	5.00	ug/L
75-00-3	Chloroethane	18.2		0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	19.1		0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.6		0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.6		0.26	1.00	ug/L
67-64-1	Acetone	99.8		1.40	5.00	ug/L
75-15-0	Carbon Disulfide	16.7		0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	20.0		0.16	1.00	ug/L
79-20-9	Methyl Acetate	23.7		0.60	1.00	ug/L
75-09-2	Methylene Chloride	19.9		0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.0		0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	19.8		0.23	1.00	ug/L
110-82-7	Cyclohexane	17.4		1.60	5.00	ug/L
78-93-3	2-Butanone	98.0		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	20.3		0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.2		0.25	1.00	ug/L
74-97-5	Bromochloromethane	21.1		0.18	1.00	ug/L
67-66-3	Chloroform	20.4		0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.7		0.19	1.00	ug/L
108-87-2	Methylcyclohexane	18.2		0.19	1.00	ug/L
71-43-2	Benzene	19.4		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	21.1		0.24	1.00	ug/L
79-01-6	Trichloroethene	19.9		0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.6		0.19	1.00	ug/L
75-27-4	Bromodichloromethane	20.8		0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		0.75	5.00	ug/L
108-88-3	Toluene	19.7		0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	20.1		0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.1		0.18	1.00	ug/L

Raw Data: **VN081405.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBSD01	SDG No.:	P1747
Lab Sample ID:	VN0314WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081405.D	1		03/14/24 13:18	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	21.2		0.21	1.00	ug/L
591-78-6	2-Hexanone	100		1.10	5.00	ug/L
124-48-1	Dibromochloromethane	21.3		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	20.7		0.16	1.00	ug/L
127-18-4	Tetrachloroethene	19.1		0.25	1.00	ug/L
108-90-7	Chlorobenzene	19.3		0.13	1.00	ug/L
100-41-4	Ethyl Benzene	19.1		0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	38.9		0.31	2.00	ug/L
95-47-6	o-Xylene	19.1		0.14	1.00	ug/L
100-42-5	Styrene	20.2		0.16	1.00	ug/L
75-25-2	Bromoform	20.4		0.21	1.00	ug/L
98-82-8	Isopropylbenzene	18.7		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.3		0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.4		0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.4		0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.3		0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.7		0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	18.0		0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	17.8		0.51	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.6		74 - 125	109%	SPK: 50
1868-53-7	Dibromofluoromethane	52.7		75 - 124	105%	SPK: 50
2037-26-5	Toluene-d8	51.4		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.2		64 - 133	104%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	294000	8.229			
540-36-3	1,4-Difluorobenzene	535000	9.106			
3114-55-4	Chlorobenzene-d5	486000	11.87			
3855-82-1	1,4-Dichlorobenzene-d4	221000	13.794			

Raw Data: **VN081405.D**

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

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	VN0314WBSD01	SDG No.:	P1747
Lab Sample ID:	VN0314WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN081405.D	1		03/14/24 13:18	VN031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081405.D
Acq On : 14 Mar 2024 13:18
Operator : JC\MD
Sample : VN0314WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 01:11:33 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.229	168	294169	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	534919	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	486415	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	221293	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	232047	54.556	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 109.120%			
35) Dibromofluoromethane	8.171	113	172719	52.702	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 105.400%			
50) Toluene-d8	10.570	98	629428	51.377	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 102.760%			
62) 4-Bromofluorobenzene	12.853	95	226151	52.228	ug/l	0.00
Spiked Amount 50.000	Range 64 - 133		Recovery = 104.460%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	80142	20.552	ug/l	95
3) Chloromethane	2.365	50	73874	17.538	ug/l	94
4) Vinyl Chloride	2.518	62	79233	18.031	ug/l	96
5) Bromomethane	2.959	94	53053	18.077	ug/l	89
6) Chloroethane	3.124	64	54790	18.154	ug/l	100
7) Trichlorofluoromethane	3.500	101	123942	19.066	ug/l	96
8) Diethyl Ether	3.965	74	44092	19.252	ug/l	85
9) 1,1,2-Trichlorotrifluo...	4.371	101	68761	18.575	ug/l	91
10) Methyl Iodide	4.594	142	65015	19.192	ug/l	98
11) Tert butyl alcohol	5.518	59	73031	98.195	ug/l	98
12) 1,1-Dichloroethene	4.341	96	63733	18.591	ug/l	98
13) Acrolein	4.177	56	72427	82.241	ug/l	99
14) Allyl chloride	5.024	41	93402	18.359	ug/l #	90
15) Acrylonitrile	5.712	53	193899	99.796	ug/l	97
16) Acetone	4.430	43	150349	99.768	ug/l	96
17) Carbon Disulfide	4.712	76	163341	16.694	ug/l	99
18) Methyl Acetate	5.024	43	102154	23.676	ug/l	92
19) Methyl tert-butyl Ether	5.794	73	232280	19.978	ug/l	93
20) Methylene Chloride	5.283	84	75934	19.910	ug/l	94
21) trans-1,2-Dichloroethene	5.794	96	69742	18.044	ug/l	89
22) Diisopropyl ether	6.671	45	234813	20.780	ug/l #	95
23) Vinyl Acetate	6.606	43	904566	98.536	ug/l #	94
24) 1,1-Dichloroethane	6.577	63	137269	19.844	ug/l	98
25) 2-Butanone	7.482	43	247336	98.004	ug/l	96
26) 2,2-Dichloropropane	7.494	77	112607	18.419	ug/l	99
27) cis-1,2-Dichloroethene	7.488	96	84141	19.202	ug/l	87
28) Bromochloromethane	7.824	49	62598	21.149	ug/l #	26
29) Tetrahydrofuran	7.835	42	165689	96.279	ug/l	89
30) Chloroform	7.971	83	146490	20.407	ug/l	97
31) Cyclohexane	8.265	56	111872	17.373	ug/l #	74
32) 1,1,1-Trichloroethane	8.171	97	124915	19.687	ug/l	95
36) 1,1-Dichloropropene	8.371	75	103017	19.484	ug/l	96
37) Ethyl Acetate	7.559	43	104771	20.271	ug/l	99
38) Carbon Tetrachloride	8.365	117	108209	20.335	ug/l	93
39) Methylcyclohexane	9.600	83	110440	18.150	ug/l	89
40) Benzene	8.612	78	306421	19.416	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081405.D
Acq On : 14 Mar 2024 13:18
Operator : JC\MD
Sample : VN0314WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 01:11:33 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.782	41	56945	19.510	ug/l		95
42) 1,2-Dichloroethane	8.677	62	117579	21.131	ug/l		99
43) Isopropyl Acetate	8.688	43	180061	19.904	ug/l		98
44) Trichloroethene	9.353	130	79168	19.890	ug/l		96
45) 1,2-Dichloropropane	9.624	63	77887	19.646	ug/l		97
46) Dibromomethane	9.712	93	58402	20.899	ug/l		93
47) Bromodichloromethane	9.888	83	113029	20.835	ug/l	#	99
48) Methyl methacrylate	9.682	41	79379	19.851	ug/l		89
49) 1,4-Dioxane	9.694	88	34191	387.939	ug/l	#	83
51) 4-Methyl-2-Pentanone	10.447	43	538096	102.441	ug/l		97
52) Toluene	10.629	92	187598	19.678	ug/l		100
53) t-1,3-Dichloropropene	10.841	75	117930	20.092	ug/l		95
54) cis-1,3-Dichloropropene	10.318	75	127470	20.117	ug/l		93
55) 1,1,2-Trichloroethane	11.018	97	80192	21.212	ug/l		93
56) Ethyl methacrylate	10.876	69	111130	20.471	ug/l		93
57) 1,3-Dichloropropane	11.165	76	134366	20.364	ug/l		97
58) 2-Chloroethyl Vinyl ether	10.165	63	265722	90.998	ug/l	#	90
59) 2-Hexanone	11.200	43	402272	102.441	ug/l		97
60) Dibromochloromethane	11.359	129	82770	21.259	ug/l		99
61) 1,2-Dibromoethane	11.470	107	81140	20.685	ug/l		97
64) Tetrachloroethene	11.106	164	72590	19.059	ug/l		91
65) Chlorobenzene	11.894	112	197748	19.292	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.965	131	74910	19.972	ug/l		97
67) Ethyl Benzene	11.965	91	352758	19.105	ug/l		96
68) m/p-Xylenes	12.076	106	269975	38.853	ug/l		95
69) o-Xylene	12.400	106	128384	19.064	ug/l		96
70) Styrene	12.412	104	215231	20.168	ug/l		98
71) Bromoform	12.582	173	53009	20.357	ug/l	#	94
73) Isopropylbenzene	12.700	105	333641	18.671	ug/l		98
74) N-amyl acetate	12.494	43	147342	19.651	ug/l		95
75) 1,1,2,2-Tetrachloroethane	12.941	83	106313	19.278	ug/l		98
76) 1,2,3-Trichloropropane	12.994	75	102294m	19.571	ug/l		
77) Bromobenzene	12.982	156	79793	18.833	ug/l		79
78) n-propylbenzene	13.035	91	407346	19.273	ug/l		97
79) 2-Chlorotoluene	13.129	91	243593	18.855	ug/l		97
80) 1,3,5-Trimethylbenzene	13.176	105	286276	19.380	ug/l		97
81) trans-1,4-Dichloro-2-b...	12.741	75	33905	18.103	ug/l		84
82) 4-Chlorotoluene	13.223	91	239682	18.783	ug/l		94
83) tert-Butylbenzene	13.441	119	236291	18.659	ug/l		97
84) 1,2,4-Trimethylbenzene	13.482	105	293403	19.605	ug/l		97
85) sec-Butylbenzene	13.617	105	344694	18.815	ug/l		95
86) p-Isopropyltoluene	13.729	119	286533	19.502	ug/l		97
87) 1,3-Dichlorobenzene	13.735	146	147117	18.389	ug/l		95
88) 1,4-Dichlorobenzene	13.811	146	146947	18.377	ug/l		99
89) n-Butylbenzene	14.059	91	245752	18.240	ug/l		96
90) Hexachloroethane	14.335	117	50708	19.713	ug/l		97
91) 1,2-Dichlorobenzene	14.106	146	140535	18.309	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.723	75	22040	18.676	ug/l		83
93) 1,2,4-Trichlorobenzene	15.394	180	74041	18.046	ug/l		98
94) Hexachlorobutadiene	15.505	225	29529	17.418	ug/l		97
95) Naphthalene	15.647	128	262664	17.992	ug/l		98
96) 1,2,3-Trichlorobenzene	15.841	180	74048	17.797	ug/l		95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081405.D
Acq On : 14 Mar 2024 13:18
Operator : JC\MD
Sample : VN0314WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 01:11:33 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024

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

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

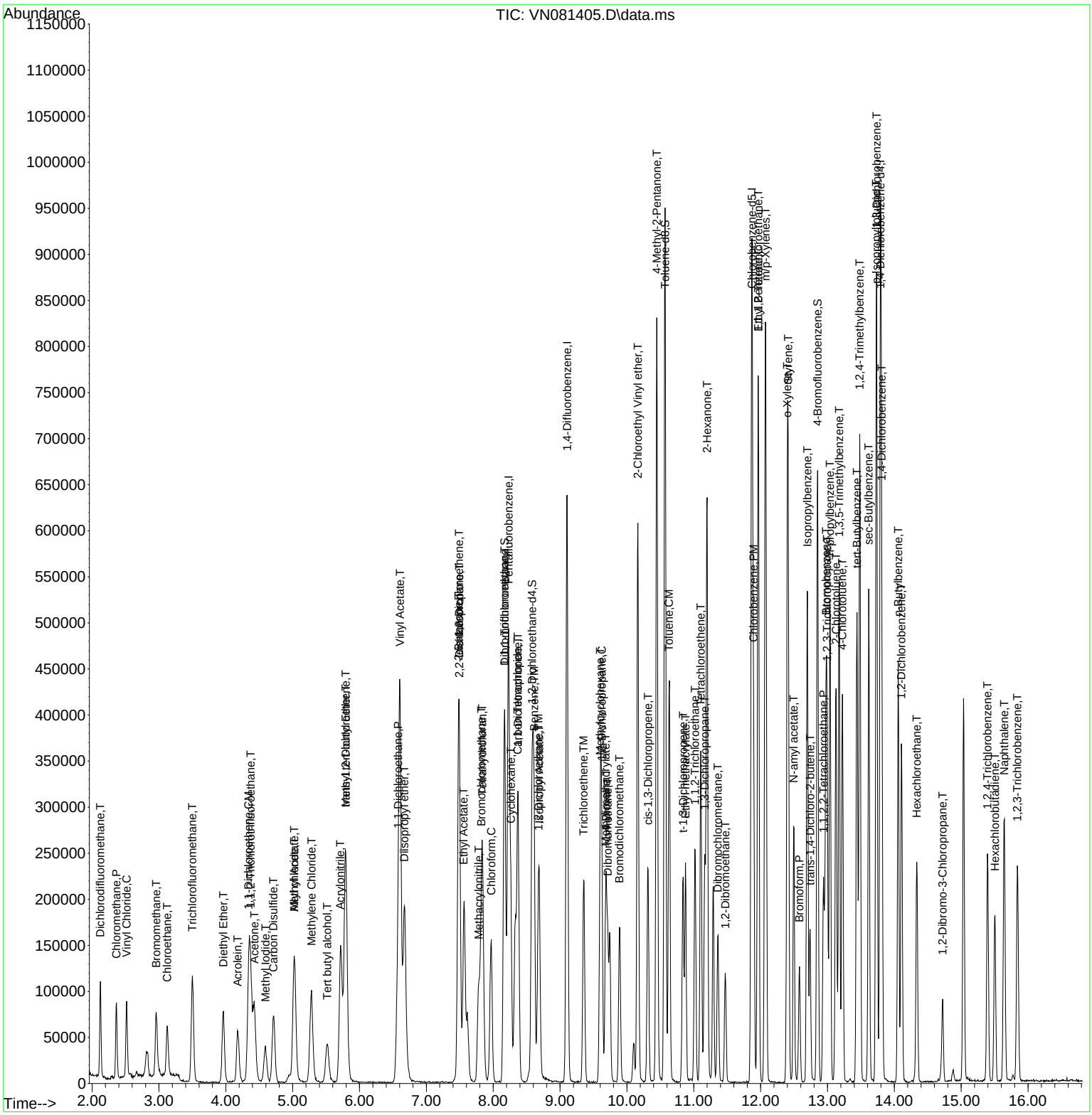
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031424\
Data File : VN081405.D
Acq On : 14 Mar 2024 13:18
Operator : JC\MD
Sample : VN0314WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 01:11:33 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N030524W.M
Quant Title : SW846 8260
QLast Update : Wed Mar 06 03:12:57 2024
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0314WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/15/2024
Supervised By :Mahesh Dadoda 03/15/2024



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Manual Integration Report

Sequence:	vn030524	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC100	VN081304.D	1,2,3-Trichloropropane	JOHN	3/6/2024 9:38:31 AM	MMDadoda	3/6/2024 11:26:53 AM	Peak Integrated by Software incorrectly
VSTDICCC050	VN081305.D	1,2,3-Trichloropropane	JOHN	3/6/2024 9:38:38 AM	MMDadoda	3/6/2024 11:26:41 AM	Peak Integrated by Software incorrectly
VSTDICC020	VN081306.D	1,2,3-Trichloropropane	JOHN	3/6/2024 9:38:46 AM	MMDadoda	3/6/2024 11:26:46 AM	Peak Integrated by Software incorrectly
VSTDICC010	VN081307.D	1,2,3-Trichloropropane	JOHN	3/6/2024 9:38:53 AM	MMDadoda	3/6/2024 11:26:45 AM	Peak Integrated by Software incorrectly
VSTDICC010	VN081307.D	Methylene Chloride	JOHN	3/6/2024 9:38:53 AM	MMDadoda	3/6/2024 11:26:45 AM	Peak Integrated by Software incorrectly
VSTDICC005	VN081308.D	1,1-Dichloroethane	JOHN	3/6/2024 9:39:00 AM	MMDadoda	3/6/2024 11:26:45 AM	Peak Integrated by Software incorrectly
VSTDICC005	VN081308.D	1,2,3-Trichloropropane	JOHN	3/6/2024 9:39:00 AM	MMDadoda	3/6/2024 11:26:45 AM	Peak Integrated by Software incorrectly
VSTDICC001	VN081309.D	1,1-Dichloroethane	JOHN	3/6/2024 9:39:08 AM	MMDadoda	3/6/2024 11:26:50 AM	Peak Integrated by Software incorrectly
VSTDICC001	VN081309.D	1,2,3-Trichloropropane	JOHN	3/6/2024 9:39:08 AM	MMDadoda	3/6/2024 11:26:50 AM	Peak Integrated by Software incorrectly
VSTDICC001	VN081309.D	1,4-Dichlorobenzene	JOHN	3/6/2024 9:39:08 AM	MMDadoda	3/6/2024 11:26:50 AM	Peak Integrated by Software incorrectly
VSTDICC001	VN081309.D	Allyl chloride	JOHN	3/6/2024 9:39:08 AM	MMDadoda	3/6/2024 11:26:50 AM	Peak Integrated by Software incorrectly
VSTDICC001	VN081309.D	Methyl Acetate	JOHN	3/6/2024 9:39:08 AM	MMDadoda	3/6/2024 11:26:50 AM	Peak Integrated by Software incorrectly
VSTDICV050	VN081311.D	1,2,3-Trichloropropane	JOHN	3/6/2024 9:39:15 AM	MMDadoda	3/6/2024 11:26:49 AM	Peak Integrated by Software incorrectly

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Manual Integration Report

Sequence:	vn030524	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason

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

Manual Integration Report

Sequence:	vn031424	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VN081401.D	1,2,3-Trichloropropane	JOHN	3/15/2024 9:18:07 AM	MMDadoda	3/15/2024 4:04:32 PM	Peak Integrated by Software incorrectly
VN0314WBS01	VN081404.D	1,2,3-Trichloropropane	JOHN	3/15/2024 9:18:12 AM	MMDadoda	3/15/2024 4:04:33 PM	Peak Integrated by Software incorrectly
VN0314WBSD01	VN081405.D	1,2,3-Trichloropropane	JOHN	3/15/2024 9:18:19 AM	MMDadoda	3/15/2024 4:04:34 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VN081424.D	1,2,3-Trichloropropane	JOHN	3/15/2024 9:19:06 AM	MMDadoda	3/15/2024 4:04:44 PM	Peak Integrated by Software incorrectly

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN030524

Review By	John Carlone	Review On	3/6/2024 9:39:37 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/6/2024 11:26:59 AM		
SubDirectory	VN030524	HP Acquire Method		HP Processing Method	82N030524W.M

STD. NAME	STD REF.#
Tune/Reschk	VP126377
Initial Calibration Stds	VP126395,VP126396,VP126397,VP126398,VP126399,VP126400
CCC	VP126378,VP126379
Internal Standard/PEM	
ICV/I.BLK	VP126401
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN081302.D	05 Mar 2024 09:31	JC\MD	Ok
2	VSTDCCC050	VN081303.D	05 Mar 2024 11:20	JC\MD	Not Ok
3	VSTDICC100	VN081304.D	05 Mar 2024 12:00	JC\MD	Ok,M
4	VSTDICCC050	VN081305.D	05 Mar 2024 12:24	JC\MD	Ok,M
5	VSTDICC020	VN081306.D	05 Mar 2024 12:48	JC\MD	Ok,M
6	VSTDICC010	VN081307.D	05 Mar 2024 13:12	JC\MD	Ok,M
7	VSTDICC005	VN081308.D	05 Mar 2024 13:36	JC\MD	Ok,M
8	VSTDICC001	VN081309.D	05 Mar 2024 13:59	JC\MD	Ok,M
9	IBLK	VN081310.D	05 Mar 2024 14:48	JC\MD	Ok
10	VSTDICV050	VN081311.D	05 Mar 2024 15:15	JC\MD	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN031424

Review By	John Carlone	Review On	3/15/2024 9:22:48 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/15/2024 4:04:49 PM		
SubDirectory	VN031424	HP Acquire Method		HP Processing Method	82N030524W.M

STD. NAME	STD REF.#
Tune/Reschk	VP126585
Initial Calibration Stds	
CCC	VP126586,VP126587
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN081400.D	14 Mar 2024 10:49	JC\MD	Ok
2	VSTDCCC050	VN081401.D	14 Mar 2024 11:22	JC\MD	Ok,M
3	VN0314MBL01	VN081402.D	14 Mar 2024 11:56	JC\MD	Ok
4	VN0314WBL01	VN081403.D	14 Mar 2024 12:20	JC\MD	Ok
5	VN0314WBS01	VN081404.D	14 Mar 2024 12:44	JC\MD	Ok,M
6	VN0314WBSD01	VN081405.D	14 Mar 2024 13:18	JC\MD	Ok,M
7	P1725-02	VN081406.D	14 Mar 2024 13:41	JC\MD	Ok
8	P1727-01	VN081407.D	14 Mar 2024 14:05	JC\MD	Ok,M
9	IBLK	VN081408.D	14 Mar 2024 14:29	JC\MD	Ok
10	P1727-02	VN081409.D	14 Mar 2024 14:53	JC\MD	Ok
11	P1747-06	VN081410.D	14 Mar 2024 15:17	JC\MD	Ok
12	P1749-05	VN081411.D	14 Mar 2024 15:41	JC\MD	Ok
13	P1747-01	VN081412.D	14 Mar 2024 16:05	JC\MD	Ok
14	P1747-02	VN081413.D	14 Mar 2024 16:29	JC\MD	Ok
15	P1747-04	VN081414.D	14 Mar 2024 16:53	JC\MD	Ok
16	P1747-05	VN081415.D	14 Mar 2024 17:17	JC\MD	Ok
17	P1749-01	VN081416.D	14 Mar 2024 17:41	JC\MD	Ok
18	P1749-02	VN081417.D	14 Mar 2024 18:05	JC\MD	Ok
19	P1749-03	VN081418.D	14 Mar 2024 18:29	JC\MD	Ok
20	P1749-04	VN081419.D	14 Mar 2024 18:53	JC\MD	Ok,M
21	P1769-01	VN081420.D	14 Mar 2024 19:17	JC\MD	Dilution
22	P1769-02	VN081421.D	14 Mar 2024 19:41	JC\MD	ReRun
23	P1769-03	VN081422.D	14 Mar 2024 20:05	JC\MD	Not Ok

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN031424

Review By	John Carlone	Review On	3/15/2024 9:22:48 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/15/2024 4:04:49 PM		
SubDirectory	VN031424	HP Acquire Method		HP Processing Method	82N030524W.M

STD. NAME	STD REF.#
Tune/Reschk	VP126585
Initial Calibration Stds	
CCC	VP126586,VP126587
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

24	P1769-07	VN081423.D	14 Mar 2024 20:29	JC\MD	Not Ok
25	VSTDCCC050	VN081424.D	14 Mar 2024 20:52	JC\MD	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN030524

Review By	John Carlone	Review On	3/6/2024 9:39:37 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/6/2024 11:26:59 AM		
SubDirectory	VN030524	HP Acquire Method		HP Processing Method	82N030524W.M

STD. NAME	STD REF.#
Tune/Reschk	VP126377
Initial Calibration Stds	VP126395,VP126396,VP126397,VP126398,VP126399,VP126400
CCC	VP126378,VP126379
Internal Standard/PEM	
ICV/I.BLK	VP126401
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN081302.D	05 Mar 2024 09:31		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN081303.D	05 Mar 2024 11:20	Need ICAL	JC\MD	Not Ok
3	VSTDICC100	VSTDICC100	VN081304.D	05 Mar 2024 12:00	Good for DOD	JC\MD	Ok,M
4	VSTDICCC050	VSTDICCC050	VN081305.D	05 Mar 2024 12:24	LR- 20	JC\MD	Ok,M
5	VSTDICC020	VSTDICC020	VN081306.D	05 Mar 2024 12:48		JC\MD	Ok,M
6	VSTDICC010	VSTDICC010	VN081307.D	05 Mar 2024 13:12		JC\MD	Ok,M
7	VSTDICC005	VSTDICC005	VN081308.D	05 Mar 2024 13:36		JC\MD	Ok,M
8	VSTDICC001	VSTDICC001	VN081309.D	05 Mar 2024 13:59		JC\MD	Ok,M
9	IBLK	IBLK	VN081310.D	05 Mar 2024 14:48		JC\MD	Ok
10	VSTDICV050	ICVVN030524	VN081311.D	05 Mar 2024 15:15		JC\MD	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN031424

Review By	John Carlone	Review On	3/15/2024 9:22:48 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/15/2024 4:04:49 PM		
SubDirectory	VN031424	HP Acquire Method		HP Processing Method	82N030524W.M

STD. NAME	STD REF.#
Tune/Reschk	VP126585
Initial Calibration Stds	
CCC	VP126586,VP126587
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN081400.D	14 Mar 2024 10:49		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN081401.D	14 Mar 2024 11:22	pH#Lot#V12668	JC\MD	Ok,M
3	VN0314MBL01	VN0314MBL01	VN081402.D	14 Mar 2024 11:56		JC\MD	Ok
4	VN0314WBL01	VN0314WBL01	VN081403.D	14 Mar 2024 12:20		JC\MD	Ok
5	VN0314WBS01	VN0314WBS01	VN081404.D	14 Mar 2024 12:44		JC\MD	Ok,M
6	VN0314WBSD01	VN0314WBSD01	VN081405.D	14 Mar 2024 13:18		JC\MD	Ok,M
7	P1725-02	RT-3860RE	VN081406.D	14 Mar 2024 13:41	vial B pH#5.0	JC\MD	Ok
8	P1727-01	240313044-02-VOA	VN081407.D	14 Mar 2024 14:05	vial B pH#6.0	JC\MD	Ok,M
9	IBLK	IBLK	VN081408.D	14 Mar 2024 14:29		JC\MD	Ok
10	P1727-02	240313039-03-TRIP-BL	VN081409.D	14 Mar 2024 14:53	vial B pH#6.0	JC\MD	Ok
11	P1747-06	TRIP-BLANK-1	VN081410.D	14 Mar 2024 15:17	vial A pH<2	JC\MD	Ok
12	P1749-05	TRIP-BLANK	VN081411.D	14 Mar 2024 15:41	vial A pH<2	JC\MD	Ok
13	P1747-01	MW-01	VN081412.D	14 Mar 2024 16:05	vial A pH<2	JC\MD	Ok
14	P1747-02	MW-01-DUP	VN081413.D	14 Mar 2024 16:29	vial A pH<2	JC\MD	Ok
15	P1747-04	MW-02	VN081414.D	14 Mar 2024 16:53	vial A pH<2	JC\MD	Ok
16	P1747-05	TWP-04	VN081415.D	14 Mar 2024 17:17	vial A pH<2	JC\MD	Ok
17	P1749-01	MW-1	VN081416.D	14 Mar 2024 17:41	vial A pH<2	JC\MD	Ok
18	P1749-02	MW-2A	VN081417.D	14 Mar 2024 18:05	vial A pH<2	JC\MD	Ok
19	P1749-03	MW-2	VN081418.D	14 Mar 2024 18:29	vial A pH<2	JC\MD	Ok

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN031424

Review By	John Carlone	Review On	3/15/2024 9:22:48 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/15/2024 4:04:49 PM		
SubDirectory	VN031424	HP Acquire Method		HP Processing Method	82N030524W.M

STD. NAME	STD REF.#
Tune/Reschk	VP126585
Initial Calibration Stds	
CCC	VP126586,VP126587
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

20	P1749-04	MW-4	VN081419.D	14 Mar 2024 18:53	vial A pH<2	JC\MD	Ok,M
21	P1769-01	MW-2	VN081420.D	14 Mar 2024 19:17	vial A pH<2 Need 50X	JC\MD	Dilution
22	P1769-02	MW-1	VN081421.D	14 Mar 2024 19:41	vial A pH<2 E flag in previous sample	JC\MD	ReRun
23	P1769-03	FB-3-14-24	VN081422.D	14 Mar 2024 20:05	vial A pH<2 carryover conc., FB	JC\MD	Not Ok
24	P1769-07	TB-3-14-24	VN081423.D	14 Mar 2024 20:29	vial A pH<2 carryover conc., TB	JC\MD	Not Ok
25	VSTDCCC050	VSTDCCC050EC	VN081424.D	14 Mar 2024 20:52		JC\MD	Ok,M

M : Manual Integration

CHEMTECH

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO.
QUOTE NO. P1747
COC Number 2043853

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: LiRo Engineers, Inc.
ADDRESS: 703 Fourimer street
CITY Brooklyn STATE: NY ZIP: 11211
ATTENTION: Steve Frank / Amy Hewson
PHONE: 716 882-5476 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Walter Gladwin Park Rec. Center
PROJECT NO.: 19-294-0265.01 LOCATION: Bronx, NY
PROJECT MANAGER: Steve Frank
e-mail: franks@liro-hill.com
PHONE: 716 882-5476 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS: Same
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: 5 day TAT DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

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 + Raw Data) ☐ NYS ASP A ☐ NYS ASP B
☐ Other
☐ EDD FORMAT

ANALYSIS

1 TCL VOCs
2 SVOCs
3 PCBs
4 Pesticides
5 TAL metals*
6
7 NYCDEP Sanitary or Combined Sewer Discharge Parameters
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								A	D	B	→	→	→	~	~		← Specify Preservatives
1.	MW-01	GW		X	3/12/24	0800	7	X	X	X	X	X					A-HCl D-NaOH
2.	MW-01 DUP	GW		X	↓	0830	7	X	X	X	X	X					B-HN03 E-ICE
3.	MW-01	GW		X	3/13/24	1000	14							X	X		C-H2SO4 F-OTHER
4.	MW-02	GW		X	3/12/24	1200	7	X	X	X	X	X					
5.	TWP-04	GW		X	↓	1100	7	X	X	X	X	X					
6.	Trip Blank #1	DI Water		X	—	—	2	X									
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Eva Hu	3/13/24 1220	1. 3-13-24
2.		2.
3.	3-13-24 1630	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.4 °C
Comments: * TAL Metals (Filtered & Unfiltered)

Page 1 of 1
CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☒ Picked Up ☐ Field Sampling
Shipment Complete ☐ YES ☐ NO

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

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Maine	2022022
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-21-00137
Texas	T104704488-23-16

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P1747 LIRO01
Client Name : LiRo Engineers, Inc.
Client Contact : Steve Frank
Invoice Name : LiRo Engineers, Inc.
Invoice Contact : Steve Frank

Order Date : 3/13/2024 12:28:00 PM
Project Name : Walter Gladwin Recreation
Receive DateTime : 3/13/2024 ~~12:00:00 AM~~ 16:30
Purchase Order :

Project Mgr :
Report Type : NYS ASP A
EDD Type : NYSDEC EDD V-3
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P1747-01	MW-01	Water	03/12/2024	08:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
P1747-02	MW-01-DUP	Water	03/12/2024	08:30					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
P1747-03	MW-01	Water	03/13/2024	10:00					
					VOC-NYCD	NYCDischarge	624.1		5 Bus. Days
P1747-04	MW-02	Water	03/12/2024	12:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
P1747-05	MW-04	Water	03/12/2024	11:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
P1747-06	TRIP-BLANK	Water	03/12/2024	00:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days

Relinguished By :
Date / Time : 3-14-24 0903

Received By :
Date / Time : 3/14/24 09:03

Storage Area : **VOA Refridgerator Room**

Ref #4
Ref #5