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

LAB CHRONICLE

OrderID:	Q1242	**OrderDate:**	1/30/2025 3:02:00 PM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1242-01	**JPP-6.2-013025**	**SOIL**			**01/30/25**			**01/30/25**
			VOCMS Group1	8260D			02/04/25	
Q1242-02	**JPP-6.2-013025**	**TCLP**			**01/30/25**			**01/30/25**
			TCLP VOA	8260D			02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID:	**JPP-6.2-013025**								
Q1242-01	JPP-6.2-013025	SOIL	Acetone		16.4		4.00	16.0	ug/Kg
Q1242-01	JPP-6.2-013025	SOIL	Carbon Disulfide		2.20	J	0.82	3.20	ug/Kg
Q1242-01	JPP-6.2-013025	SOIL	Toluene		3.70		0.43	3.20	ug/Kg
Q1242-01	JPP-6.2-013025	SOIL	Isopropylbenzene		1.50	J	0.43	3.20	ug/Kg
			Total Voc :		23.8				
Q1242-01	JPP-6.2-013025	SOIL	.beta.-Pinene	*	5.00	J	0	0	ug/Kg
Q1242-01	JPP-6.2-013025	SOIL	p-Isopropyltoluene	*	8.60	J	0.37	3.20	ug/Kg
			Total Tics :		13.6				
			Total Concentration:		37.4				

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.5
Sample Wt/Vol:	9.58 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021068.D	1		02/04/25 18:57	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	3.20	U	1.10	3.20	ug/Kg
74-87-3	Chloromethane	3.20	U	0.74	3.20	ug/Kg
75-01-4	Vinyl Chloride	3.20	U	0.49	3.20	ug/Kg
74-83-9	Bromomethane	3.20	U	0.66	3.20	ug/Kg
75-00-3	Chloroethane	3.20	U	0.65	3.20	ug/Kg
75-69-4	Trichlorofluoromethane	3.20	U	0.58	3.20	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.20	U	0.69	3.20	ug/Kg
75-65-0	Tert butyl alcohol	16.0	U	10.0	16.0	ug/Kg
75-35-4	1,1-Dichloroethene	3.20	U	0.50	3.20	ug/Kg
67-64-1	Acetone	16.4		4.00	16.0	ug/Kg
75-15-0	Carbon Disulfide	2.20	J	0.82	3.20	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.20	U	0.43	3.20	ug/Kg
79-20-9	Methyl Acetate	3.20	U	1.20	3.20	ug/Kg
75-09-2	Methylene Chloride	6.40	U	2.20	6.40	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.20	U	0.54	3.20	ug/Kg
75-34-3	1,1-Dichloroethane	3.20	U	0.40	3.20	ug/Kg
110-82-7	Cyclohexane	3.20	U	0.44	3.20	ug/Kg
78-93-3	2-Butanone	16.0	U	3.60	16.0	ug/Kg
56-23-5	Carbon Tetrachloride	3.20	U	0.56	3.20	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.20	U	0.39	3.20	ug/Kg
74-97-5	Bromochloromethane	3.20	U	1.50	3.20	ug/Kg
67-66-3	Chloroform	3.20	U	0.43	3.20	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.20	U	0.50	3.20	ug/Kg
108-87-2	Methylcyclohexane	3.20	U	0.56	3.20	ug/Kg
71-43-2	Benzene	3.20	U	0.46	3.20	ug/Kg
107-06-2	1,2-Dichloroethane	3.20	U	0.39	3.20	ug/Kg
79-01-6	Trichloroethene	3.20	U	0.48	3.20	ug/Kg
78-87-5	1,2-Dichloropropane	3.20	U	0.42	3.20	ug/Kg
75-27-4	Bromodichloromethane	3.20	U	0.36	3.20	ug/Kg
108-10-1	4-Methyl-2-Pentanone	16.0	U	2.80	16.0	ug/Kg

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.5
Sample Wt/Vol:	9.58 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021068.D	1		02/04/25 18:57	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	3.70		0.43	3.20	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.20	U	0.38	3.20	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.20	U	0.37	3.20	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.20	U	0.54	3.20	ug/Kg
591-78-6	2-Hexanone	16.0	U	3.10	16.0	ug/Kg
124-48-1	Dibromochloromethane	3.20	U	0.42	3.20	ug/Kg
106-93-4	1,2-Dibromoethane	3.20	U	0.51	3.20	ug/Kg
127-18-4	Tetrachloroethene	3.20	U	0.57	3.20	ug/Kg
108-90-7	Chlorobenzene	3.20	U	0.47	3.20	ug/Kg
100-41-4	Ethyl Benzene	3.20	U	0.40	3.20	ug/Kg
179601-23-1	m/p-Xylenes	6.40	U	0.86	6.40	ug/Kg
95-47-6	o-Xylene	3.20	U	0.45	3.20	ug/Kg
100-42-5	Styrene	3.20	U	0.38	3.20	ug/Kg
75-25-2	Bromoform	3.20	U	0.52	3.20	ug/Kg
98-82-8	Isopropylbenzene	1.50	J	0.43	3.20	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.20	U	0.70	3.20	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.20	U	0.47	3.20	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.20	U	0.51	3.20	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.20	U	0.38	3.20	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.20	U	1.00	3.20	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.20	U	0.51	3.20	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.20	U	0.50	3.20	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.6		50 - 163	119%	SPK: 50
1868-53-7	Dibromofluoromethane	37.4		54 - 147	75%	SPK: 50
2037-26-5	Toluene-d8	49.6		58 - 134	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		29 - 146	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	137000	7.707			
540-36-3	1,4-Difluorobenzene	244000	8.616			
3114-55-4	Chlorobenzene-d5	215000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	86800	13.347			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-6.2-013025	SDG No.:	Q1242
Lab Sample ID:	Q1242-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	81.5
Sample Wt/Vol:	9.58 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021068.D	1		02/04/25 18:57	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TENTATIVE IDENTIFIED COMPOUNDS						
000127-91-3	.beta.-Pinene	5.00	J		12.8	ug/Kg
99-87-6	p-Isopropyltoluene	8.60	J		13.3	ug/Kg

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

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

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1242-01	JPP-6.2-013025	1,2-Dichloroethane-d4	50	59.6	119	50	163
		Dibromofluoromethane	50	37.4	75	54	147
		Toluene-d8	50	49.6	99	58	134
		4-Bromofluorobenzene	50	48.6	97	29	146
VY0204SBL01	VY0204SBL01	1,2-Dichloroethane-d4	50	57.4	115	50	163
		Dibromofluoromethane	50	51.6	103	54	147
		Toluene-d8	50	49.8	100	58	134
		4-Bromofluorobenzene	50	47.5	95	29	146
VY0204SBS01	VY0204SBS01	1,2-Dichloroethane-d4	50	44.3	89	50	163
		Dibromofluoromethane	50	44.6	89	54	147
		Toluene-d8	50	45.4	91	58	134
		4-Bromofluorobenzene	50	45.0	90	29	146
VY0204SBSD01	VY0204SBSD01	1,2-Dichloroethane-d4	50	55.2	110	50	163
		Dibromofluoromethane	50	53.3	107	54	147
		Toluene-d8	50	54.0	108	58	134
		4-Bromofluorobenzene	50	56.3	113	29	146

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021048.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBS01	Dichlorodifluoromethane	19.9	18.6	ug/Kg	93			64	136	
	Chloromethane	19.9	18.0	ug/Kg	90			70	130	
	Vinyl chloride	19.9	17.9	ug/Kg	90			72	129	
	Bromomethane	19.9	17.7	ug/Kg	89			58	141	
	Chloroethane	19.9	17.7	ug/Kg	89			69	130	
	Trichlorofluoromethane	19.9	18.0	ug/Kg	90			69	134	
	1,1,2-Trichlorotrifluoroethane	19.9	18.8	ug/Kg	94			81	123	
	Tert butyl alcohol	99.6	97.1	ug/Kg	97			24	175	
	1,1-Dichloroethene	19.9	18.0	ug/Kg	90			79	121	
	Acetone	99.6	94.9	ug/Kg	95			60	131	
	Carbon disulfide	19.9	17.6	ug/Kg	88			45	154	
	Methyl tert-butyl Ether	19.9	17.7	ug/Kg	89			77	129	
	Methyl Acetate	19.9	17.9	ug/Kg	90			69	149	
	Methylene Chloride	19.9	18.2	ug/Kg	91			56	174	
	trans-1,2-Dichloroethene	19.9	17.9	ug/Kg	90			80	123	
	1,1-Dichloroethane	19.9	18.6	ug/Kg	93			82	123	
	Cyclohexane	19.9	18.4	ug/Kg	92			76	122	
	2-Butanone	99.6	91.9	ug/Kg	92			69	131	
	Carbon Tetrachloride	19.9	18.8	ug/Kg	94			76	129	
	cis-1,2-Dichloroethene	19.9	18.3	ug/Kg	92			82	123	
	Bromochloromethane	19.9	19.8	ug/Kg	99			80	127	
	Chloroform	19.9	18.4	ug/Kg	92			82	125	
	1,1,1-Trichloroethane	19.9	18.8	ug/Kg	94			80	126	
	Methylcyclohexane	19.9	18.3	ug/Kg	92			77	123	
	Benzene	19.9	18.5	ug/Kg	93			84	121	
	1,2-Dichloroethane	19.9	18.1	ug/Kg	91			81	126	
	Trichloroethene	19.9	18.5	ug/Kg	93			83	122	
	1,2-Dichloropropane	19.9	19.0	ug/Kg	95			83	122	
	Bromodichloromethane	19.9	18.6	ug/Kg	93			82	123	
	4-Methyl-2-Pentanone	99.6	92.0	ug/Kg	92			70	135	
	Toluene	19.9	18.8	ug/Kg	94			83	122	
	t-1,3-Dichloropropene	19.9	18.2	ug/Kg	91			78	124	
	cis-1,3-Dichloropropene	19.9	18.5	ug/Kg	93			81	122	
	1,1,2-Trichloroethane	19.9	18.3	ug/Kg	92			82	125	
	2-Hexanone	99.6	90.5	ug/Kg	91			66	138	
	Dibromochloromethane	19.9	18.3	ug/Kg	92			79	125	
	1,2-Dibromoethane	19.9	17.7	ug/Kg	89			80	125	
	Tetrachloroethene	19.9	18.8	ug/Kg	94			83	125	
	Chlorobenzene	19.9	18.5	ug/Kg	93			84	122	
	Ethyl Benzene	19.9	18.7	ug/Kg	94			82	124	
	m/p-Xylenes	39.8	37.6	ug/Kg	94			83	124	
	o-Xylene	19.9	18.5	ug/Kg	93			83	123	
	Styrene	19.9	18.8	ug/Kg	94			82	124	
	Bromoform	19.9	18.5	ug/Kg	93			75	127	
	Isopropylbenzene	19.9	17.6	ug/Kg	88			82	124	
	1,1,2,2-Tetrachloroethane	19.9	17.4	ug/Kg	87			77	127	
	1,3-Dichlorobenzene	19.9	17.8	ug/Kg	89			83	122	
	1,4-Dichlorobenzene	19.9	18.2	ug/Kg	91			84	121	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021048.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBS01	1,2-Dichlorobenzene	19.9	18.2	ug/Kg	91			83	124	
	1,2-Dibromo-3-Chloropropane	19.9	16.2	ug/Kg	81			66	134	
	1,2,4-Trichlorobenzene	19.9	18.2	ug/Kg	91			78	127	
	1,2,3-Trichlorobenzene	19.9	17.8	ug/Kg	89			70	137	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021049.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBSD01	Dichlorodifluoromethane	19.9	19.3	ug/Kg	97	4		64	136	20
	Chloromethane	19.9	19.6	ug/Kg	98	9		70	130	20
	Vinyl chloride	19.9	18.0	ug/Kg	90	0		72	129	20
	Bromomethane	19.9	19.2	ug/Kg	96	8		58	141	20
	Chloroethane	19.9	17.5	ug/Kg	88	1		69	130	20
	Trichlorofluoromethane	19.9	18.4	ug/Kg	92	2		69	134	20
	1,1,2-Trichlorotrifluoroethane	19.9	19.0	ug/Kg	95	1		81	123	20
	Tert butyl alcohol	99.6	120	ug/Kg	120	21	*	24	175	20
	1,1-Dichloroethene	19.9	18.8	ug/Kg	94	4		79	121	20
	Acetone	99.6	120	ug/Kg	120	23	*	60	131	20
	Carbon disulfide	19.9	18.2	ug/Kg	91	3		45	154	20
	Methyl tert-butyl Ether	19.9	20.3	ug/Kg	102	14		77	129	20
	Methyl Acetate	19.9	21.6	ug/Kg	109	19		69	149	20
	Methylene Chloride	19.9	20.1	ug/Kg	101	10		56	174	20
	trans-1,2-Dichloroethene	19.9	19.4	ug/Kg	97	7		80	123	20
	1,1-Dichloroethane	19.9	20.0	ug/Kg	101	8		82	123	20
	Cyclohexane	19.9	18.5	ug/Kg	93	1		76	122	20
	2-Butanone	99.6	110	ug/Kg	110	18		69	131	20
	Carbon Tetrachloride	19.9	19.3	ug/Kg	97	3		76	129	20
	cis-1,2-Dichloroethene	19.9	19.9	ug/Kg	100	8		82	123	20
	Bromochloromethane	19.9	23.3	ug/Kg	117	17		80	127	20
	Chloroform	19.9	20.0	ug/Kg	101	9		82	125	20
	1,1,1-Trichloroethane	19.9	19.8	ug/Kg	99	5		80	126	20
	Methylcyclohexane	19.9	18.4	ug/Kg	92	0		77	123	20
	Benzene	19.9	19.9	ug/Kg	100	7		84	121	20
	1,2-Dichloroethane	19.9	20.4	ug/Kg	103	12		81	126	20
	Trichloroethene	19.9	19.4	ug/Kg	97	4		83	122	20
	1,2-Dichloropropane	19.9	20.0	ug/Kg	101	6		83	122	20
	Bromodichloromethane	19.9	20.6	ug/Kg	104	11		82	123	20
	4-Methyl-2-Pentanone	99.6	110	ug/Kg	110	18		70	135	20
	Toluene	19.9	20.0	ug/Kg	101	7		83	122	20
	t-1,3-Dichloropropene	19.9	20.2	ug/Kg	102	11		78	124	20
	cis-1,3-Dichloropropene	19.9	20.1	ug/Kg	101	8		81	122	20
	1,1,2-Trichloroethane	19.9	20.4	ug/Kg	103	11		82	125	20
	2-Hexanone	99.6	110	ug/Kg	110	19		66	138	20
	Dibromochloromethane	19.9	20.6	ug/Kg	104	12		79	125	20
	1,2-Dibromoethane	19.9	20.0	ug/Kg	101	13		80	125	20
	Tetrachloroethene	19.9	19.5	ug/Kg	98	4		83	125	20
	Chlorobenzene	19.9	19.6	ug/Kg	98	5		84	122	20
	Ethyl Benzene	19.9	19.5	ug/Kg	98	4		82	124	20
	m/p-Xylenes	39.8	39.5	ug/Kg	99	5		83	124	20
	o-Xylene	19.9	20.0	ug/Kg	101	8		83	123	20
	Styrene	19.9	20.2	ug/Kg	102	8		82	124	20
	Bromoform	19.9	21.2	ug/Kg	107	14		75	127	20
	Isopropylbenzene	19.9	18.5	ug/Kg	93	6		82	124	20
	1,1,2,2-Tetrachloroethane	19.9	20.2	ug/Kg	102	16		77	127	20
	1,3-Dichlorobenzene	19.9	19.1	ug/Kg	96	8		83	122	20
	1,4-Dichlorobenzene	19.9	19.7	ug/Kg	99	8		84	121	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1242

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021049.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0204SBSD01	1,2-Dichlorobenzene	19.9	19.8	ug/Kg	99	8		83	124	20
	1,2-Dibromo-3-Chloropropane	19.9	20.7	ug/Kg	104	25	*	66	134	20
	1,2,4-Trichlorobenzene	19.9	20.0	ug/Kg	101	10		78	127	20
	1,2,3-Trichlorobenzene	19.9	20.8	ug/Kg	105	16		70	137	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0204SBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021047.D Lab Sample ID: VY0204SBL01

Date Analyzed: 02/04/2025 Time Analyzed: 10:15

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

Instrument ID: MSVOA_Y

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY0204SBS01	VY0204SBS01	VY021048.D	02/04/2025
VY0204SBSD01	VY0204SBSD01	VY021049.D	02/04/2025
JPP-6.2-013025	Q1242-01	VY021068.D	02/04/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021019.D BFB Injection Date: 02/03/2025

Instrument ID: MSVOA_Y BFB Injection Time: 09:51

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.3
75	30.0 - 60.0% of mass 95	49
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.3 (0.4) 1
174	50.0 - 100.0% of mass 95	89.7
175	5.0 - 9.0% of mass 174	7 (7.8) 1
176	95.0 - 101.0% of mass 174	87 (97) 1
177	5.0 - 9.0% of mass 176	5.9 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VY021020.D	02/03/2025	10:35
VSTDICC010	VSTDICC010	VY021021.D	02/03/2025	10:57
VSTDICC020	VSTDICC020	VY021022.D	02/03/2025	11:20
VSTDICCC050	VSTDICCC050	VY021023.D	02/03/2025	11:43
VSTDICC100	VSTDICC100	VY021024.D	02/03/2025	12:21
VSTDICC150	VSTDICC150	VY021025.D	02/03/2025	12:44

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021045.D BFB Injection Date: 02/04/2025

Instrument ID: MSVOA_Y BFB Injection Time: 09:16

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	55.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.3 (1.5) 1
174	50.0 - 100.0% of mass 95	88.1
175	5.0 - 9.0% of mass 174	7 (7.9) 1
176	95.0 - 101.0% of mass 174	84.8 (96.1) 1
177	5.0 - 9.0% of mass 176	5.3 (6.3) 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	VY021046.D	02/04/2025	09:47
VY0204SBL01	VY0204SBL01	VY021047.D	02/04/2025	10:15
VY0204SBS01	VY0204SBS01	VY021048.D	02/04/2025	10:52
VY0204SBSD01	VY0204SBSD01	VY021049.D	02/04/2025	11:15
JPP-6.2-013025	Q1242-01	VY021068.D	02/04/2025	18:57

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021046.D Date Analyzed: 02/04/2025

Instrument ID: MSVOA_Y Time Analyzed: 09:47

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

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	154178	7.71	233780	8.62	206737	11.42
UPPER LIMIT	308356	8.213	467560	9.115	413474	11.92
LOWER LIMIT	77089	7.213	116890	8.115	103369	10.92
EPA SAMPLE NO.						
JPP-6.2-013025	137351	7.71	243790	8.62	214926	11.41
VY0204SBL01	173019	7.71	321305	8.62	292351	11.42
VY0204SBS01	159738	7.71	247448	8.62	212473	11.42
VY0204SBSD01	146628	7.71	228862	8.62	199914	11.42

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

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

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG NO.: Q1242

Lab File ID: VY021046.D Date Analyzed: 02/04/2025

Instrument ID: MSVOA_Y Time Analyzed: 09:47

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

	IS4 AREA #	RT #				
12 HOUR STD	102470	13.352				
UPPER LIMIT	204940	13.852				
LOWER LIMIT	51235	12.852				
EPA SAMPLE NO.						
JPP-6.2-013025	86830	13.35				
VY0204SBL01	114535	13.35				
VY0204SBS01	108974	13.35				
VY0204SBSD01	101483	13.35				

IS4 = 1,4-Dichlorobenzene-d4

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

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

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	U	1.70	5.00	ug/Kg
74-87-3	Chloromethane	5.00	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	5.00	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	5.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	5.00	U	1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	5.00	U	0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	25.0	U	15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	5.00	U	0.78	5.00	ug/Kg
67-64-1	Acetone	25.0	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	5.00	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.00	U	0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	5.00	U	1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	10.0	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	5.00	U	0.63	5.00	ug/Kg
110-82-7	Cyclohexane	5.00	U	0.69	5.00	ug/Kg
78-93-3	2-Butanone	25.0	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.00	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	5.00	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	5.00	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.00	U	0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	5.00	U	0.87	5.00	ug/Kg
71-43-2	Benzene	5.00	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	5.00	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	5.00	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	5.00	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	5.00	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	25.0	U	4.40	25.0	ug/Kg

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.00	U	0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.00	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.00	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	25.0	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	5.00	U	0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	5.00	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	5.00	U	0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	5.00	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	5.00	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	10.0	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	5.00	U	0.70	5.00	ug/Kg
100-42-5	Styrene	5.00	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	5.00	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	5.00	U	0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.00	U	0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.00	U	0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.00	U	0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.00	U	0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.4		50 - 163	115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	49.8		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		29 - 146	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	173000	7.713			
540-36-3	1,4-Difluorobenzene	321000	8.616			
3114-55-4	Chlorobenzene-d5	292000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	115000	13.353			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	18.7		1.70	5.00	ug/Kg
74-87-3	Chloromethane	18.1		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	17.9		0.77	5.00	ug/Kg
74-83-9	Bromomethane	17.8		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.7		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.1		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	18.9		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	97.5		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.1		0.78	5.00	ug/Kg
67-64-1	Acetone	95.3		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	17.7		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	17.8		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	18.0		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	18.3		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	17.9		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	18.6		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.5		0.69	5.00	ug/Kg
78-93-3	2-Butanone	92.2		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	18.8		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	18.3		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	19.9		2.40	5.00	ug/Kg
67-66-3	Chloroform	18.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	18.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.4		0.87	5.00	ug/Kg
71-43-2	Benzene	18.5		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	18.1		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	18.6		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.1		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	18.6		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	92.4		4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	18.9		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	18.2		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	18.6		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	18.4		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	90.8		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	18.3		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	17.8		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	18.9		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	18.6		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.7		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	37.8		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.6		0.70	5.00	ug/Kg
100-42-5	Styrene	18.8		0.60	5.00	ug/Kg
75-25-2	Bromoform	18.6		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	17.7		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	17.4		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	17.9		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	18.3		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	18.2		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	16.3		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.3		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.8		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.3		50 - 163	89%	SPK: 50
1868-53-7	Dibromofluoromethane	44.6		54 - 147	89%	SPK: 50
2037-26-5	Toluene-d8	45.4		58 - 134	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.0		29 - 146	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	7.707			
540-36-3	1,4-Difluorobenzene	247000	8.616			
3114-55-4	Chlorobenzene-d5	212000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	109000	13.353			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	19.3		1.70	5.00	ug/Kg
74-87-3	Chloromethane	19.7		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.1		0.77	5.00	ug/Kg
74-83-9	Bromomethane	19.2		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.6		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.4		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	19.1		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	120		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.9		0.78	5.00	ug/Kg
67-64-1	Acetone	120		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.3		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	20.4		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	21.7		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	20.2		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	19.5		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.1		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.6		0.69	5.00	ug/Kg
78-93-3	2-Butanone	110		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.3		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.0		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	23.4		2.40	5.00	ug/Kg
67-66-3	Chloroform	20.1		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.5		0.87	5.00	ug/Kg
71-43-2	Benzene	20.0		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.4		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	19.4		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.1		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.6		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	20.1		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	20.3		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.1		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	20.5		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.7		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.1		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.6		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	19.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.6		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	39.7		1.40	10.0	ug/Kg
95-47-6	o-Xylene	20.1		0.70	5.00	ug/Kg
100-42-5	Styrene	20.2		0.60	5.00	ug/Kg
75-25-2	Bromoform	21.3		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.5		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.3		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.2		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.8		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.9		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20.8		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	20.1		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	20.9		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.2		50 - 163	110%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	53.9		58 - 134	108%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.3		29 - 146	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	147000	7.707			
540-36-3	1,4-Difluorobenzene	229000	8.616			
3114-55-4	Chlorobenzene-d5	200000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	101000	13.346			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1242
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

CALIBRATION SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

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

LAB FILE ID: RRF005 = VY021020.D RRF010 = VY021021.D RRF020 = VY021022.D
RRF050 = VY021023.D RRF100 = VY021024.D RRF150 = VY021025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.503	0.438	0.413	0.445	0.419	0.457	0.446	7.2
Chloromethane	0.524	0.445	0.408	0.421	0.404	0.437	0.440	10.1
Vinyl Chloride	0.535	0.441	0.404	0.424	0.408	0.443	0.443	10.9
Bromomethane	0.356	0.275	0.249	0.258	0.246	0.257	0.274	15.2
Chloroethane	0.316	0.270	0.240	0.255	0.239	0.261	0.263	10.7
Trichlorofluoromethane	0.924	0.814	0.755	0.789	0.743	0.813	0.806	8
1,1,2-Trichlorotrifluoroethane	0.587	0.507	0.472	0.494	0.466	0.510	0.506	8.6
Tert butyl alcohol	0.042	0.039	0.035	0.032	0.028	0.032	0.035	14.8
1,1-Dichloroethene	0.529	0.471	0.441	0.469	0.452	0.498	0.477	6.8
Acetone	0.087	0.083	0.078	0.077	0.070	0.083	0.080	7.5
Carbon Disulfide	1.673	1.456	1.389	1.475	1.421	1.556	1.495	7
Methyl tert-butyl Ether	1.271	1.185	1.168	1.216	1.124	1.265	1.205	4.8
Methyl Acetate	0.300	0.282	0.268	0.287	0.253	0.291	0.280	6.1
Methylene Chloride	0.570	0.506	0.473	0.485	0.452	0.494	0.497	8.2
trans-1,2-Dichloroethene	0.578	0.518	0.502	0.522	0.490	0.538	0.525	5.8
1,1-Dichloroethane	1.104	0.948	0.923	0.947	0.911	0.989	0.970	7.3
Cyclohexane	1.093	0.885	0.807	0.827	0.779	0.852	0.874	13
2-Butanone	0.134	0.133	0.126	0.135	0.121	0.139	0.131	5.2
Carbon Tetrachloride	0.604	0.551	0.522	0.547	0.522	0.581	0.555	5.9
cis-1,2-Dichloroethene	0.662	0.584	0.577	0.599	0.575	0.626	0.604	5.7
Bromochloromethane	0.373	0.368	0.381	0.413	0.374	0.394	0.384	4.4
Chloroform	1.107	1.016	0.947	0.982	0.921	1.006	0.997	6.5
1,1,1-Trichloroethane	1.067	0.901	0.867	0.912	0.863	0.949	0.927	8.2
Methylcyclohexane	0.609	0.550	0.536	0.588	0.570	0.629	0.581	6.1
Benzene	1.512	1.382	1.327	1.378	1.323	1.436	1.393	5.1
1,2-Dichloroethane	0.435	0.390	0.367	0.379	0.352	0.395	0.386	7.4
Trichloroethene	0.401	0.355	0.341	0.349	0.338	0.375	0.360	6.7
1,2-Dichloropropane	0.357	0.329	0.319	0.327	0.311	0.341	0.331	5
Bromodichloromethane	0.528	0.500	0.469	0.482	0.459	0.506	0.491	5.2
4-Methyl-2-Pentanone	0.202	0.211	0.202	0.216	0.194	0.224	0.208	5.2

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

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

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

LAB FILE ID: RRF005 = VY021020.D RRF010 = VY021021.D RRF020 = VY021022.D
RRF050 = VY021023.D RRF100 = VY021024.D RRF150 = VY021025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Toluene	0.913	0.856	0.840	0.876	0.844	0.918	0.875	3.9
t-1,3-Dichloropropene	0.441	0.426	0.419	0.449	0.427	0.483	0.441	5.3
cis-1,3-Dichloropropene	0.528	0.516	0.502	0.525	0.501	0.560	0.522	4.2
1,1,2-Trichloroethane	0.261	0.235	0.231	0.235	0.217	0.242	0.237	6.1
2-Hexanone	0.124	0.131	0.128	0.144	0.129	0.149	0.134	7.4
Dibromochloromethane	0.359	0.330	0.324	0.329	0.310	0.346	0.333	5.2
1,2-Dibromoethane	0.232	0.223	0.215	0.225	0.203	0.233	0.222	5
Tetrachloroethene	0.409	0.367	0.352	0.361	0.351	0.387	0.371	6.2
Chlorobenzene	1.237	1.115	1.054	1.080	1.048	1.146	1.113	6.4
Ethyl Benzene	2.101	1.899	1.865	1.943	1.914	2.093	1.969	5.2
m/p-Xylenes	0.772	0.723	0.709	0.733	0.711	0.773	0.737	3.9
o-Xylene	0.723	0.658	0.660	0.681	0.670	0.729	0.687	4.6
Styrene	1.154	1.118	1.105	1.156	1.128	1.208	1.145	3.2
Bromoform	0.231	0.222	0.217	0.216	0.205	0.229	0.220	4.4
Isopropylbenzene	4.122	3.695	3.673	3.809	3.871	4.263	3.906	6.1
1,1,2,2-Tetrachloroethane	0.707	0.646	0.635	0.632	0.597	0.680	0.650	6
1,3-Dichlorobenzene	1.937	1.686	1.660	1.683	1.652	1.824	1.740	6.6
1,4-Dichlorobenzene	1.906	1.702	1.632	1.665	1.599	1.778	1.714	6.6
1,2-Dichlorobenzene	1.668	1.524	1.440	1.460	1.405	1.567	1.510	6.4
1,2-Dibromo-3-Chloropropane	0.099	0.099	0.089	0.097	0.089	0.109	0.097	7.6
1,2,4-Trichlorobenzene	0.796	0.754	0.743	0.875	0.873	1.004	0.841	11.6
1,2,3-Trichlorobenzene	0.641	0.640	0.626	0.733	0.726	0.832	0.700	11.4
1,2-Dichloroethane-d4	0.566	0.557	0.478	0.503	0.454	0.516	0.512	8.5
Dibromofluoromethane	0.351	0.326	0.301	0.313	0.297	0.333	0.320	6.4
Toluene-d8	1.295	1.237	1.139	1.202	1.158	1.288	1.220	5.3
4-Bromofluorobenzene	0.417	0.408	0.371	0.403	0.375	0.418	0.399	5.2

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_Y Calibration Date/Time: 02/04/2025 09:47

Lab File ID: VY021046.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.446	0.470		5.38	20
Chloromethane	0.440	0.443	0.1	0.68	20
Vinyl Chloride	0.443	0.443		0	20
Bromomethane	0.274	0.270		-1.46	20
Chloroethane	0.263	0.263		0	20
Trichlorofluoromethane	0.806	0.812		0.74	20
1,1,2-Trichlorotrifluoroethane	0.506	0.522		3.16	20
Tert butyl alcohol	0.035	0.035		0	20
1,1-Dichloroethene	0.477	0.489		2.52	20
Acetone	0.080	0.085		6.25	20
Carbon Disulfide	1.495	1.571		5.08	20
Methyl tert-butyl Ether	1.205	1.270		5.39	20
Methyl Acetate	0.280	0.312		11.43	20
Methylene Chloride	0.497	0.513		3.22	20
trans-1,2-Dichloroethene	0.525	0.550		4.76	20
1,1-Dichloroethane	0.970	1.014	0.1	4.54	20
Cyclohexane	0.874	0.883		1.03	20
2-Butanone	0.131	0.143		9.16	20
Carbon Tetrachloride	0.555	0.591		6.49	20
cis-1,2-Dichloroethene	0.604	0.639		5.8	20
Bromochloromethane	0.384	0.407		5.99	20
Chloroform	0.997	1.045		4.81	20
1,1,1-Trichloroethane	0.927	0.969		4.53	20
Methylcyclohexane	0.581	0.623		7.23	20
Benzene	1.393	1.501		7.75	20
1,2-Dichloroethane	0.386	0.414		7.25	20
Trichloroethene	0.360	0.380		5.56	20
1,2-Dichloropropane	0.331	0.357		7.86	20
Bromodichloromethane	0.491	0.518		5.5	20
4-Methyl-2-Pentanone	0.208	0.238		14.42	20
Toluene	0.875	0.954		9.03	20
t-1,3-Dichloropropene	0.441	0.486		10.2	20
cis-1,3-Dichloropropene	0.522	0.569		9	20
1,1,2-Trichloroethane	0.237	0.253		6.75	20
2-Hexanone	0.134	0.157		17.16	20
Dibromochloromethane	0.333	0.359		7.81	20
1,2-Dibromoethane	0.222	0.240		8.11	20
Tetrachloroethene	0.371	0.387		4.31	20

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

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Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1242 SAS No.: Q1242 SDG No.: Q1242

Instrument ID: MSVOA_Y Calibration Date/Time: 02/04/2025 09:47

Lab File ID: VY021046.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chlorobenzene	1.113	1.159	0.3	4.13	20
Ethyl Benzene	1.969	2.119		7.62	20
m/p-Xylenes	0.737	0.793		7.6	20
o-Xylene	0.687	0.747		8.73	20
Styrene	1.145	1.261		10.13	20
Bromoform	0.220	0.240	0.1	9.09	20
Isopropylbenzene	3.906	4.054		3.76	20
1,1,2,2-Tetrachloroethane	0.650	0.677	0.3	4.15	20
1,3-Dichlorobenzene	1.740	1.821		4.66	20
1,4-Dichlorobenzene	1.714	1.787		4.26	20
1,2-Dichlorobenzene	1.510	1.568		3.84	20
1,2-Dibromo-3-Chloropropane	0.097	0.101		4.12	20
1,2,4-Trichlorobenzene	0.841	0.932		10.82	20
1,2,3-Trichlorobenzene	0.700	0.777		11	20
1,2-Dichloroethane-d4	0.512	0.534		4.3	20
Dibromofluoromethane	0.320	0.343		7.19	20
Toluene-d8	1.220	1.329		8.93	20
4-Bromofluorobenzene	0.399	0.446		11.78	20

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