

LAB CHRONICLE

OrderID:	Q1206	OrderDate:	1/28/2025 11:18:51 AM
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
Q1206-01	JPP-20.1-012725	SOIL	VOCMS Group1	8260D	01/27/25		02/03/25	01/28/25
Q1206-02	JPP-20.1-012725	TCLP	TCLP VOA	8260D	01/27/25		01/29/25	01/28/25
Q1206-05	JPP-16.3-012725	SOIL	VOCMS Group1	8260D	01/27/25		02/03/25	01/28/25
Q1206-06	JPP-16.3-012725	TCLP	TCLP VOA	8260D	01/27/25		01/29/25	01/28/25



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Hit Summary Sheet
SW-846

SDG No.: Q1206
Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:				0				
Total Voc :								
Total Concentration:								



SAMPLE DATA

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.5
Sample Wt/Vol:	5.08 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
VY021039.D	1		02/03/25 18:58	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.80	U	1.90	5.80	ug/Kg
74-87-3	Chloromethane	5.80	U	1.30	5.80	ug/Kg
75-01-4	Vinyl Chloride	5.80	U	0.89	5.80	ug/Kg
74-83-9	Bromomethane	5.80	U	1.20	5.80	ug/Kg
75-00-3	Chloroethane	5.80	U	1.20	5.80	ug/Kg
75-69-4	Trichlorofluoromethane	5.80	U	1.00	5.80	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.80	U	1.20	5.80	ug/Kg
75-65-0	Tert butyl alcohol	28.8	U	18.0	28.8	ug/Kg
75-35-4	1,1-Dichloroethene	5.80	U	0.90	5.80	ug/Kg
67-64-1	Acetone	28.8	U	7.20	28.8	ug/Kg
75-15-0	Carbon Disulfide	5.80	U	1.50	5.80	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.80	U	0.77	5.80	ug/Kg
79-20-9	Methyl Acetate	5.80	U	2.10	5.80	ug/Kg
75-09-2	Methylene Chloride	11.5	U	3.90	11.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.80	U	0.97	5.80	ug/Kg
75-34-3	1,1-Dichloroethane	5.80	U	0.73	5.80	ug/Kg
110-82-7	Cyclohexane	5.80	U	0.79	5.80	ug/Kg
78-93-3	2-Butanone	28.8	U	6.50	28.8	ug/Kg
56-23-5	Carbon Tetrachloride	5.80	U	1.00	5.80	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.80	U	0.70	5.80	ug/Kg
74-97-5	Bromochloromethane	5.80	U	2.80	5.80	ug/Kg
67-66-3	Chloroform	5.80	U	0.77	5.80	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.80	U	0.90	5.80	ug/Kg
108-87-2	Methylcyclohexane	5.80	U	1.00	5.80	ug/Kg
71-43-2	Benzene	5.80	U	0.83	5.80	ug/Kg
107-06-2	1,2-Dichloroethane	5.80	U	0.70	5.80	ug/Kg
79-01-6	Trichloroethene	5.80	U	0.86	5.80	ug/Kg
78-87-5	1,2-Dichloropropane	5.80	U	0.76	5.80	ug/Kg
75-27-4	Bromodichloromethane	5.80	U	0.64	5.80	ug/Kg
108-10-1	4-Methyl-2-Pentanone	28.8	U	5.00	28.8	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.5
Sample Wt/Vol:	5.08 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
VY021039.D	1		02/03/25 18:58	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.80	U	0.77	5.80	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.80	U	0.69	5.80	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.80	U	0.66	5.80	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.80	U	0.97	5.80	ug/Kg
591-78-6	2-Hexanone	28.8	U	5.50	28.8	ug/Kg
124-48-1	Dibromochloromethane	5.80	U	0.75	5.80	ug/Kg
106-93-4	1,2-Dibromoethane	5.80	U	0.91	5.80	ug/Kg
127-18-4	Tetrachloroethene	5.80	U	1.00	5.80	ug/Kg
108-90-7	Chlorobenzene	5.80	U	0.85	5.80	ug/Kg
100-41-4	Ethyl Benzene	5.80	U	0.71	5.80	ug/Kg
179601-23-1	m/p-Xylenes	11.5	U	1.60	11.5	ug/Kg
95-47-6	o-Xylene	5.80	U	0.81	5.80	ug/Kg
100-42-5	Styrene	5.80	U	0.69	5.80	ug/Kg
75-25-2	Bromoform	5.80	U	0.93	5.80	ug/Kg
98-82-8	Isopropylbenzene	5.80	U	0.77	5.80	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.80	U	1.30	5.80	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.80	U	0.85	5.80	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.80	U	0.92	5.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.80	U	0.68	5.80	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.80	U	1.80	5.80	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.80	U	0.91	5.80	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.80	U	0.90	5.80	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	62.7		50 - 163	125%	SPK: 50
1868-53-7	Dibromofluoromethane	53.6		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	50.3		58 - 134	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.6		29 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	179000	7.707			
540-36-3	1,4-Difluorobenzene	339000	8.616			
3114-55-4	Chlorobenzene-d5	316000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	131000	13.352			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.5
Sample Wt/Vol:	5.08 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
VY021039.D	1		02/03/25 18:58	VY020325

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

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.07 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
VY021040.D	1		02/03/25 19:21	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.70	U	1.90	5.70	ug/Kg
74-87-3	Chloromethane	5.70	U	1.30	5.70	ug/Kg
75-01-4	Vinyl Chloride	5.70	U	0.88	5.70	ug/Kg
74-83-9	Bromomethane	5.70	U	1.20	5.70	ug/Kg
75-00-3	Chloroethane	5.70	U	1.20	5.70	ug/Kg
75-69-4	Trichlorofluoromethane	5.70	U	1.00	5.70	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.70	U	1.20	5.70	ug/Kg
75-65-0	Tert butyl alcohol	28.7	U	17.9	28.7	ug/Kg
75-35-4	1,1-Dichloroethene	5.70	U	0.90	5.70	ug/Kg
67-64-1	Acetone	28.7	U	7.20	28.7	ug/Kg
75-15-0	Carbon Disulfide	5.70	U	1.50	5.70	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.70	U	0.77	5.70	ug/Kg
79-20-9	Methyl Acetate	5.70	U	2.10	5.70	ug/Kg
75-09-2	Methylene Chloride	11.5	U	3.90	11.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.70	U	0.96	5.70	ug/Kg
75-34-3	1,1-Dichloroethane	5.70	U	0.72	5.70	ug/Kg
110-82-7	Cyclohexane	5.70	U	0.79	5.70	ug/Kg
78-93-3	2-Butanone	28.7	U	6.50	28.7	ug/Kg
56-23-5	Carbon Tetrachloride	5.70	U	1.00	5.70	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.70	U	0.70	5.70	ug/Kg
74-97-5	Bromochloromethane	5.70	U	2.80	5.70	ug/Kg
67-66-3	Chloroform	5.70	U	0.77	5.70	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.70	U	0.90	5.70	ug/Kg
108-87-2	Methylcyclohexane	5.70	U	1.00	5.70	ug/Kg
71-43-2	Benzene	5.70	U	0.83	5.70	ug/Kg
107-06-2	1,2-Dichloroethane	5.70	U	0.70	5.70	ug/Kg
79-01-6	Trichloroethene	5.70	U	0.86	5.70	ug/Kg
78-87-5	1,2-Dichloropropane	5.70	U	0.76	5.70	ug/Kg
75-27-4	Bromodichloromethane	5.70	U	0.64	5.70	ug/Kg
108-10-1	4-Methyl-2-Pentanone	28.7	U	5.00	28.7	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.07 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
VY021040.D	1		02/03/25 19:21	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.70	U	0.77	5.70	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.70	U	0.69	5.70	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.70	U	0.65	5.70	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.70	U	0.96	5.70	ug/Kg
591-78-6	2-Hexanone	28.7	U	5.50	28.7	ug/Kg
124-48-1	Dibromochloromethane	5.70	U	0.75	5.70	ug/Kg
106-93-4	1,2-Dibromoethane	5.70	U	0.91	5.70	ug/Kg
127-18-4	Tetrachloroethene	5.70	U	1.00	5.70	ug/Kg
108-90-7	Chlorobenzene	5.70	U	0.85	5.70	ug/Kg
100-41-4	Ethyl Benzene	5.70	U	0.71	5.70	ug/Kg
179601-23-1	m/p-Xylenes	11.5	U	1.50	11.5	ug/Kg
95-47-6	o-Xylene	5.70	U	0.80	5.70	ug/Kg
100-42-5	Styrene	5.70	U	0.69	5.70	ug/Kg
75-25-2	Bromoform	5.70	U	0.93	5.70	ug/Kg
98-82-8	Isopropylbenzene	5.70	U	0.77	5.70	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.70	U	1.30	5.70	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.70	U	0.85	5.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.70	U	0.92	5.70	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.70	U	0.68	5.70	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.70	U	1.80	5.70	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.70	U	0.91	5.70	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.70	U	0.90	5.70	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.0		50 - 163	118%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		54 - 147	104%	SPK: 50
2037-26-5	Toluene-d8	50.1		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.5		29 - 146	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	172000	7.713			
540-36-3	1,4-Difluorobenzene	325000	8.616			
3114-55-4	Chlorobenzene-d5	298000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	121000	13.353			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.07 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
VY021040.D	1		02/03/25 19:21	VY020325

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

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q1206-01	JPP-20.1-012725	1,2-Dichloroethane-d4	50	62.7	125	50	163
		Dibromofluoromethane	50	53.6	107	54	147
		Toluene-d8	50	50.4	101	58	134
		4-Bromofluorobenzene	50	49.6	99	29	146
Q1206-05	JPP-16.3-012725	1,2-Dichloroethane-d4	50	59.0	118	50	163
		Dibromofluoromethane	50	52.2	104	54	147
		Toluene-d8	50	50.1	100	58	134
		4-Bromofluorobenzene	50	48.5	97	29	146
VY0203SBL01	VY0203SBL01	1,2-Dichloroethane-d4	50	50.6	101	50	163
		Dibromofluoromethane	50	49.4	99	54	147
		Toluene-d8	50	47.8	96	58	134
		4-Bromofluorobenzene	50	43.4	87	29	146
VY0203SBS01	VY0203SBS01	1,2-Dichloroethane-d4	50	45.9	92	50	163
		Dibromofluoromethane	50	48.8	98	54	147
		Toluene-d8	50	50.2	100	58	134
		4-Bromofluorobenzene	50	49.7	99	29	146
VY0203SBSD01	VY0203SBSD01	1,2-Dichloroethane-d4	50	49.0	98	50	163
		Dibromofluoromethane	50	48.3	97	54	147
		Toluene-d8	50	50.2	100	58	134
		4-Bromofluorobenzene	50	49.7	99	29	146

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021029.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0203SBS01	Dichlorodifluoromethane	20	18.1	ug/Kg	91			64	136	
	Chloromethane	20	18.2	ug/Kg	91			70	130	
	Vinyl chloride	20	17.8	ug/Kg	89			72	129	
	Bromomethane	20	18.3	ug/Kg	92			58	141	
	Chloroethane	20	17.5	ug/Kg	88			69	130	
	Trichlorofluoromethane	20	18.1	ug/Kg	91			69	134	
	1,1,2-Trichlorotrifluoroethane	20	18.5	ug/Kg	93			81	123	
	Tert butyl alcohol	100	91.7	ug/Kg	92			24	175	
	1,1-Dichloroethene	20	18.0	ug/Kg	90			79	121	
	Acetone	100	83.7	ug/Kg	84			60	131	
	Carbon disulfide	20	17.7	ug/Kg	89			45	154	
	Methyl tert-butyl Ether	20	16.1	ug/Kg	81			77	129	
	Methyl Acetate	20	15.4	ug/Kg	77			69	149	
	Methylene Chloride	20	17.1	ug/Kg	86			56	174	
	trans-1,2-Dichloroethene	20	17.9	ug/Kg	90			80	123	
	1,1-Dichloroethane	20	17.6	ug/Kg	88			82	123	
	Cyclohexane	20	17.8	ug/Kg	89			76	122	
	2-Butanone	100	78.6	ug/Kg	79			69	131	
	Carbon Tetrachloride	20	18.0	ug/Kg	90			76	129	
	cis-1,2-Dichloroethene	20	17.4	ug/Kg	87			82	123	
	Bromochloromethane	20	16.4	ug/Kg	82			80	127	
	Chloroform	20	17.5	ug/Kg	88			82	125	
	1,1,1-Trichloroethane	20	18.1	ug/Kg	91			80	126	
	Methylcyclohexane	20	18.5	ug/Kg	93			77	123	
	Benzene	20	18.1	ug/Kg	91			84	121	
	1,2-Dichloroethane	20	16.9	ug/Kg	85			81	126	
	Trichloroethene	20	18.1	ug/Kg	91			83	122	
	1,2-Dichloropropane	20	17.6	ug/Kg	88			83	122	
	Bromodichloromethane	20	17.2	ug/Kg	86			82	123	
	4-Methyl-2-Pentanone	100	79.4	ug/Kg	79			70	135	
	Toluene	20	18.1	ug/Kg	91			83	122	
	t-1,3-Dichloropropene	20	17.1	ug/Kg	86			78	124	
	cis-1,3-Dichloropropene	20	17.5	ug/Kg	88			81	122	
	1,1,2-Trichloroethane	20	16.7	ug/Kg	84			82	125	
	2-Hexanone	100	76.7	ug/Kg	77			66	138	
	Dibromochloromethane	20	16.5	ug/Kg	83			79	125	
	1,2-Dibromoethane	20	16.7	ug/Kg	84			80	125	
	Tetrachloroethene	20	18.7	ug/Kg	94			83	125	
	Chlorobenzene	20	17.7	ug/Kg	89			84	122	
	Ethyl Benzene	20	18.5	ug/Kg	93			82	124	
	m/p-Xylenes	40	37.2	ug/Kg	93			83	124	
	o-Xylene	20	18.2	ug/Kg	91			83	123	
	Styrene	20	18.2	ug/Kg	91			82	124	
	Bromoform	20	17.0	ug/Kg	85			75	127	
	Isopropylbenzene	20	18.7	ug/Kg	94			82	124	
	1,1,2,2-Tetrachloroethane	20	16.4	ug/Kg	82			77	127	
	1,3-Dichlorobenzene	20	18.2	ug/Kg	91			83	122	
	1,4-Dichlorobenzene	20	17.9	ug/Kg	90			84	121	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021029.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VY0203SBS01	1,2-Dichlorobenzene	20	17.5	ug/Kg	88			83	124	
	1,2-Dibromo-3-Chloropropane	20	16.6	ug/Kg	83			66	134	
	1,2,4-Trichlorobenzene	20	17.5	ug/Kg	88			78	127	
	1,2,3-Trichlorobenzene	20	17.3	ug/Kg	86			70	137	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021030.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0203SBSD01	Dichlorodifluoromethane	20	19.5	ug/Kg	98	7		64	136	20
	Chloromethane	20	19.0	ug/Kg	95	4		70	130	20
	Vinyl chloride	20	18.7	ug/Kg	94	5		72	129	20
	Bromomethane	20	19.2	ug/Kg	96	4		58	141	20
	Chloroethane	20	18.9	ug/Kg	95	8		69	130	20
	Trichlorofluoromethane	20	19.3	ug/Kg	97	6		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	19.7	ug/Kg	99	6		81	123	20
	Tert butyl alcohol	100	120	ug/Kg	120	26	*	24	175	20
	1,1-Dichloroethene	20	19.6	ug/Kg	98	9		79	121	20
	Acetone	100	97.7	ug/Kg	98	15		60	131	20
	Carbon disulfide	20	18.9	ug/Kg	95	7		45	154	20
	Methyl tert-butyl Ether	20	19.6	ug/Kg	98	19		77	129	20
	Methyl Acetate	20	19.3	ug/Kg	97	23	*	69	149	20
	Methylene Chloride	20	19.3	ug/Kg	97	12		56	174	20
	trans-1,2-Dichloroethene	20	18.9	ug/Kg	95	5		80	123	20
	1,1-Dichloroethane	20	18.7	ug/Kg	94	7		82	123	20
	Cyclohexane	20	19.5	ug/Kg	98	10		76	122	20
	2-Butanone	100	99.3	ug/Kg	99	22	*	69	131	20
	Carbon Tetrachloride	20	19.2	ug/Kg	96	6		76	129	20
	cis-1,2-Dichloroethene	20	19.0	ug/Kg	95	9		82	123	20
	Bromochloromethane	20	18.1	ug/Kg	91	10		80	127	20
	Chloroform	20	19.2	ug/Kg	96	9		82	125	20
	1,1,1-Trichloroethane	20	19.4	ug/Kg	97	6		80	126	20
	Methylcyclohexane	20	19.7	ug/Kg	99	6		77	123	20
	Benzene	20	19.4	ug/Kg	97	6		84	121	20
	1,2-Dichloroethane	20	19.3	ug/Kg	97	13		81	126	20
	Trichloroethene	20	19.3	ug/Kg	97	6		83	122	20
	1,2-Dichloropropane	20	19.5	ug/Kg	98	11		83	122	20
	Bromodichloromethane	20	18.9	ug/Kg	95	10		82	123	20
	4-Methyl-2-Pentanone	100	99.9	ug/Kg	100	23	*	70	135	20
	Toluene	20	19.8	ug/Kg	99	8		83	122	20
	t-1,3-Dichloropropene	20	19.5	ug/Kg	98	13		78	124	20
	cis-1,3-Dichloropropene	20	19.2	ug/Kg	96	9		81	122	20
	1,1,2-Trichloroethane	20	19.3	ug/Kg	97	14		82	125	20
	2-Hexanone	100	99.3	ug/Kg	99	25	*	66	138	20
	Dibromochloromethane	20	19.2	ug/Kg	96	15		79	125	20
	1,2-Dibromoethane	20	19.0	ug/Kg	95	12		80	125	20
	Tetrachloroethene	20	19.9	ug/Kg	100	6		83	125	20
	Chlorobenzene	20	19.7	ug/Kg	99	11		84	122	20
	Ethyl Benzene	20	19.9	ug/Kg	100	7		82	124	20
	m/p-Xylenes	40	40.2	ug/Kg	101	8		83	124	20
	o-Xylene	20	19.8	ug/Kg	99	8		83	123	20
	Styrene	20	20.1	ug/Kg	101	10		82	124	20
	Bromoform	20	20.0	ug/Kg	100	16		75	127	20
	Isopropylbenzene	20	19.5	ug/Kg	98	4		82	124	20
	1,1,2,2-Tetrachloroethane	20	19.2	ug/Kg	96	16		77	127	20
	1,3-Dichlorobenzene	20	19.5	ug/Kg	98	7		83	122	20
	1,4-Dichlorobenzene	20	19.3	ug/Kg	97	7		84	121	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021030.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0203SBSD01	1,2-Dichlorobenzene	20	19.3	ug/Kg	97	10		83	124	20
	1,2-Dibromo-3-Chloropropane	20	18.9	ug/Kg	95	13		66	134	20
	1,2,4-Trichlorobenzene	20	18.9	ug/Kg	95	8		78	127	20
	1,2,3-Trichlorobenzene	20	19.3	ug/Kg	97	12		70	137	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0203SBL01

Lab Name: CHEMTECH

Contract: RUTW01

Lab Code: CHEM Case No.: Q1206

SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VY021028.D

Lab Sample ID: VY0203SBL01

Date Analyzed: 02/03/2025

Time Analyzed: 14:13

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
VY0203SBS01	VY0203SBS01	VY021029.D	02/03/2025
VY0203SBSD01	VY0203SBSD01	VY021030.D	02/03/2025
JPP-20.1-012725	Q1206-01	VY021039.D	02/03/2025
JPP-16.3-012725	Q1206-05	VY021040.D	02/03/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01
Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206
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
VSTDIC005	VSTDIC005	VY021020.D	02/03/2025	10:35
VSTDIC010	VSTDIC010	VY021021.D	02/03/2025	10:57
VSTDIC020	VSTDIC020	VY021022.D	02/03/2025	11:20
VSTDIC050	VSTDIC050	VY021023.D	02/03/2025	11:43
VSTDIC100	VSTDIC100	VY021024.D	02/03/2025	12:21
VSTDIC150	VSTDIC150	VY021025.D	02/03/2025	12:44
VY0203SBL01	VY0203SBL01	VY021028.D	02/03/2025	14:13
VY0203SBS01	VY0203SBS01	VY021029.D	02/03/2025	14:55
VY0203SBSD01	VY0203SBSD01	VY021030.D	02/03/2025	15:17
JPP-20.1-012725	Q1206-01	VY021039.D	02/03/2025	18:58
JPP-16.3-012725	Q1206-05	VY021040.D	02/03/2025	19:21

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01
Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206
Lab File ID: VY021023.D Date Analyzed: 02/03/2025
Instrument ID: MSVOA_Y Time Analyzed: 11:43
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	185055	7.71	285755	8.62	250150	11.42
UPPER LIMIT	370110	8.213	571510	9.122	500300	11.92
LOWER LIMIT	92527.5	7.213	142878	8.122	125075	10.92
EPA SAMPLE NO.						
JPP-20.1-012725	179216	7.71	339349	8.62	315655	11.42
JPP-16.3-012725	171656	7.71	325368	8.62	298186	11.42
VY0203SBL01	159750	7.71	285727	8.62	240190	11.42
VY0203SBS01	208053	7.71	315310	8.62	265413	11.42
VY0203SBSD01	203811	7.71	313701	8.62	262239	11.42

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01
 Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206
 Lab File ID: VY021023.D Date Analyzed: 02/03/2025
 Instrument ID: MSVOA_Y Time Analyzed: 11:43
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	121069	13.353				
UPPER LIMIT	242138	13.853				
LOWER LIMIT	60534.5	12.853				
EPA SAMPLE NO.						
JPP-20.1-012725	130519	13.35				
JPP-16.3-012725	120880	13.35				
VY0203SBL01	89793	13.35				
VY0203SBS01	127785	13.35				
VY0203SBSD01	128240	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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBL01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBL01	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
VY021028.D	1		02/03/25 14:13	VY020325

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBL01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBL01	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
VY021028.D	1		02/03/25 14:13	VY020325

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	50.6		50 - 163	101%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		54 - 147	99%	SPK: 50
2037-26-5	Toluene-d8	47.8		58 - 134	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.4		29 - 146	87%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	7.713			
540-36-3	1,4-Difluorobenzene	286000	8.622			
3114-55-4	Chlorobenzene-d5	240000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	89800	13.353			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBL01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBL01	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
VY021028.D	1		02/03/25 14:13	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

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

Report of Analysis

Client:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VY0203SBS01		SDG No.:	Q1206
Lab Sample ID:	VY0203SBS01		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
VY021029.D	1		02/03/25 14:55	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	18.1		1.70	5.00	ug/Kg
74-87-3	Chloromethane	18.2		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	17.8		0.77	5.00	ug/Kg
74-83-9	Bromomethane	18.3		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.5		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	18.5		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	91.7		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.0		0.78	5.00	ug/Kg
67-64-1	Acetone	83.7		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	16.1		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	15.4		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	17.1		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	17.6		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	17.8		0.69	5.00	ug/Kg
78-93-3	2-Butanone	78.6		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	18.0		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	17.4		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	16.4		2.40	5.00	ug/Kg
67-66-3	Chloroform	17.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	18.1		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.5		0.87	5.00	ug/Kg
71-43-2	Benzene	18.1		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	16.9		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	18.1		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	17.6		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	17.2		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	79.4		4.40	25.0	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBS01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBS01	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
VY021029.D	1		02/03/25 14:55	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	18.1		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	17.1		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	17.5		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	16.7		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	76.7		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	16.5		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	16.7		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	18.7		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	17.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.5		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	37.2		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.2		0.70	5.00	ug/Kg
100-42-5	Styrene	18.2		0.60	5.00	ug/Kg
75-25-2	Bromoform	17.0		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.7		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	16.4		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	18.2		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	17.9		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	17.5		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	16.6		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	17.5		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.3		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	45.9		50 - 163	92%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		54 - 147	98%	SPK: 50
2037-26-5	Toluene-d8	50.2		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		29 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	208000	7.713			
540-36-3	1,4-Difluorobenzene	315000	8.622			
3114-55-4	Chlorobenzene-d5	265000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	128000	13.352			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBS01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBS01	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
VY021029.D	1		02/03/25 14:55	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

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

Report of Analysis

Client:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VY0203SBSD01		SDG No.:	Q1206
Lab Sample ID:	VY0203SBSD01		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
VY021030.D	1		02/03/25 15:17	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	19.5		1.70	5.00	ug/Kg
74-87-3	Chloromethane	19.0		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.7		0.77	5.00	ug/Kg
74-83-9	Bromomethane	19.2		1.00	5.00	ug/Kg
75-00-3	Chloroethane	18.9		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	19.3		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	19.7		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	19.6		0.78	5.00	ug/Kg
67-64-1	Acetone	97.7		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.9		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	19.6		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	19.3		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	19.3		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	18.9		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	18.7		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	19.5		0.69	5.00	ug/Kg
78-93-3	2-Butanone	99.3		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.2		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	19.0		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	18.1		2.40	5.00	ug/Kg
67-66-3	Chloroform	19.2		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.4		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	19.7		0.87	5.00	ug/Kg
71-43-2	Benzene	19.4		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	19.3		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	19.3		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.5		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	18.9		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	99.9		4.40	25.0	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBSD01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBSD01	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
VY021030.D	1		02/03/25 15:17	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	19.8		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.5		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	19.2		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	19.3		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	99.3		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	19.2		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	19.0		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.9		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	19.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.9		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	40.2		1.40	10.0	ug/Kg
95-47-6	o-Xylene	19.8		0.70	5.00	ug/Kg
100-42-5	Styrene	20.1		0.60	5.00	ug/Kg
75-25-2	Bromoform	20.0		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	19.5		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	19.2		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.5		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.3		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.3		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	18.9		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.9		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	19.3		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.0		50 - 163	98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		54 - 147	97%	SPK: 50
2037-26-5	Toluene-d8	50.2		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		29 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	204000	7.713			
540-36-3	1,4-Difluorobenzene	314000	8.616			
3114-55-4	Chlorobenzene-d5	262000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	128000	13.352			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBSD01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBSD01	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
VY021030.D	1		02/03/25 15:17	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

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



CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

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	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.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>RUTW01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1206</u>
Instrument ID:	<u>MSVOA_Y</u>	SAS No.:	<u>Q1206</u>
Heated Purge: (Y/N)	<u>Y</u>	SDG No.:	<u>Q1206</u>
GC Column:	<u>RXI-624</u>	Calibration Date(s):	<u>02/03/2025</u>
ID:	<u>0.25 (mm)</u>	Calibration Time(s):	<u>10:35</u>
			<u>12:44</u>

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	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.