



284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

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	VOC-TCLVOA-10	8260-Low	03/12/24		03/14/24	03/13/24
P1747-02	MW-01-DUP	Water	VOC-TCLVOA-10	8260-Low	03/12/24		03/14/24	03/13/24
P1747-03	MW-01	Water	VOC-NYCD	624.1	03/13/24		03/14/24	03/13/24
P1747-04	MW-02	Water	VOC-TCLVOA-10	8260-Low	03/12/24		03/14/24	03/13/24
P1747-05	TWP-04	Water	VOC-TCLVOA-10	8260-Low	03/12/24		03/14/24	03/13/24
P1747-06	TRIP-BLANK-1	Water	VOC-TCLVOA-10	8260-Low	03/12/24		03/14/24	03/13/24



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				

SAMPLE DATA

A

B

C

D

E

F

G

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

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	1.00	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.31	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.14	1.00	ug/L
100-42-5	Styrene	1.00	U	0.16	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	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			

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

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	1.00	U	0.21	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.34	1.00	ug/L
74-83-9	Bromomethane	5.00	U	1.40	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.56	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.34	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	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	1.00	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.60	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.60	5.00	ug/L
78-93-3	2-Butanone	5.00	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.25	1.00	ug/L
74-97-5	Bromochloromethane	1.00	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	1.00	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.19	1.00	ug/L
71-43-2	Benzene	1.00	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.32	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	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	5.00	U	0.75	5.00	ug/L
108-88-3	Toluene	1.00	U	0.18	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.18	1.00	ug/L

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	1.00	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.31	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.14	1.00	ug/L
100-42-5	Styrene	1.00	U	0.16	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	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			

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

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

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	1.00	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.31	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.14	1.00	ug/L
100-42-5	Styrene	1.00	U	0.16	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	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			

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

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

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	1.00	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.31	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.14	1.00	ug/L
100-42-5	Styrene	1.00	U	0.16	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	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			

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

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

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	1.00	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.31	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.14	1.00	ug/L
100-42-5	Styrene	1.00	U	0.16	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	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			

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

QC SUMMARY

Surrogate Summary

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	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

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	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	



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	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	

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	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



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	Low	Limits	
									High	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



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

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: _____



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

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



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

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

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.



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

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.

QC SAMPLE DATA

A

B

C

D

E

F

G

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

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	1.00	U	0.21	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.16	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.16	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.31	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.14	1.00	ug/L
100-42-5	Styrene	1.00	U	0.16	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.24	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.19	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	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			

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

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

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			

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

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

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			

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

CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: <u>CHEMTECH</u>	Contract: <u>LIRO01</u>
Lab Code: <u>CHEM</u> Case No.: <u>P1747</u>	SAS No.: <u>P1747</u> SDG No.: <u>P1747</u>
Instrument ID: <u>MSVOA_N</u>	Calibration Date(s): <u>03/05/2024</u> <u>03/05/2024</u>
Heated Purge: (Y/N) <u>N</u>	Calibration Time(s): <u>12:00</u> <u>13:59</u>
GC Column: <u>RXI-624</u> ID: <u>0.25</u> (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	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.

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	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.

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.

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.