CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

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

LAB CHRONICLE

OrderID:	O1233	**OrderDate:**	1/19/2023 1:53:00 PM
Client:	Louis Berger U.S., Inc., A WSP Company	**Project:**	NYCDDC Phase II SCI Arthur Kill Road CEQR
Contact:	Jonathan Ganz	**Location:**	N11,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
O1233-02	**B-P34A**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	
O1233-03	**B-P34B**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	
O1233-04	**B-P36A**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	
O1233-05	**B-P36B**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/20/23	
O1233-05RE	**B-P36BRE**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	
O1233-06	**B-P37A**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	
O1233-07	**B-P37B**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	
O1233-08	**B-P38A**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/20/23	
O1233-08RE	**B-P38ARE**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	
O1233-09	**B-P38B**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/20/23	
O1233-09RE	**B-P38BRE**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	
O1233-11	**B-P38C**	**SOIL**			**01/18/23**			**01/19/23**
			VOC-TCLVOA-10	8260D			01/23/23	

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LAB CHRONICLE

O1233-11DL	**B-P38CDL**	**SOIL**			**01/18/23**	**01/19/23**
			VOC-TCLVOA-10	8260D		01/23/23
O1233-12	**FB01**	**Water**			**01/18/23**	**01/19/23**
			VOC-TCLVOA-10	8260-Low		01/20/23

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Hit Summary Sheet
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID:	**B-P34A**								
O1233-02	B-P34A	SOIL	Acetone		22.2	J	14.1	28.9	ug/Kg
			Total Voc :		22.2				
O1233-02	B-P34A	SOIL	unknown11.034	*	6.40	J	0	0	ug/Kg
O1233-02	B-P34A	SOIL	Ethanol, 2-(trimethylsilyl)-	*	27.6	J	0	0	ug/Kg
			Total Tics :		34.0				
			Total Concentration:		56.2				
Client ID:	**B-P34B**								
O1233-03	B-P34B	SOIL	Silanol, trimethyl-	*	24.0	J	0	0	ug/Kg
			Total Tics :		24.0				
			Total Concentration:		24.0				
Client ID:	**B-P36A**								
O1233-04	B-P36A	SOIL	Acetone		17.6	J	13.5	27.7	ug/Kg
			Total Voc :		17.6				
O1233-04	B-P36A	SOIL	Silanol, trimethyl-	*	9.90	J	0	0	ug/Kg
			Total Tics :		9.90				
			Total Concentration:		27.5				
Client ID:	**B-P37A**								
O1233-06	B-P37A	SOIL	Ethanol, 2-(trimethylsilyl)-	*	11.8	J	0	0	ug/Kg
			Total Tics :		11.8				
			Total Concentration:		11.8				
Client ID:	**B-P37B**								
O1233-07	B-P37B	SOIL	Acetone		20.6	J	14.6	29.8	ug/Kg
			Total Voc :		20.6				
O1233-07	B-P37B	SOIL	unknown10.947	*	8.50	J	0	0	ug/Kg
O1233-07	B-P37B	SOIL	Ethylene glycol, TMS derivativ	*	40.0	J	0	0	ug/Kg
			Total Tics :		48.5				
			Total Concentration:		69.1				
Client ID:	**B-P38B**								
O1233-09	B-P38B	SOIL	Octane	*	6.70	J	0	0	ug/Kg
			Total Tics :		6.70				
			Total Concentration:		6.70				
Client ID:	**B-P38C**								
O1233-11	B-P38C	SOIL	Cyclohexane		4600		97.2	580	ug/Kg
O1233-11	B-P38C	SOIL	Methylcyclohexane		31500	E	92.6	580	ug/Kg
O1233-11	B-P38C	SOIL	Ethyl Benzene		860		81.0	580	ug/Kg
O1233-11	B-P38C	SOIL	m/p-Xylenes		2400		170	1200	ug/Kg
O1233-11	B-P38C	SOIL	o-Xylene		320	J	91.4	580	ug/Kg
O1233-11	B-P38C	SOIL	Isopropylbenzene		1500		83.3	580	ug/Kg
			Total Voc :		41200				
O1233-11	B-P38C	SOIL	unknown12.600	*	47300	J	0	0	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
O1233-11	B-P38C	SOIL	Octane	*	54700	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane	*	22000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane, 3-methyl-	*	22900	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane, 2-methyl-	*	38200	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	1-Phenyl-1-butene	*	31200	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Octane, 3-methyl-	*	30700	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Octane, 2-methyl-	*	49000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Nonane, 3-methyl-	*	28400	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Nonane, 4-methyl-	*	27300	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	n-propylbenzene	*	3300	J	82.2	580	ug/Kg
O1233-11	B-P38C	SOIL	1,3,5-Trimethylbenzene	*	4000	J	74.1	580	ug/Kg
O1233-11	B-P38C	SOIL	1,2,4-Trimethylbenzene	*	7700	J	82.2	580	ug/Kg
O1233-11	B-P38C	SOIL	sec-Butylbenzene	*	1300	J	87.9	580	ug/Kg
O1233-11	B-P38C	SOIL	p-Isopropyltoluene	*	2600	J	96.0	580	ug/Kg
O1233-11	B-P38C	SOIL	n-Butylbenzene	*	3700	J	82.2	580	ug/Kg
			Total Tics :		374000				
			Total Concentration:		415000				
Client ID:	**B-P38CDL**								
O1233-11DL	B-P38CDL	SOIL	Cyclohexane		6300	D	970	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Methylcyclohexane		33800	D	930	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Ethyl Benzene		1000	JD	810	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	m/p-Xylenes		2800	JD	1700	11600	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Isopropylbenzene		2100	JD	830	5800	ug/Kg
			Total Voc :		46000				
			Total Concentration:		46000				
Client ID:	**FB01**								
O1233-12	FB01	Water	Methylene Chloride		2.80		0.18	1.00	ug/L
			Total Voc :		2.80				
			Total Concentration:		2.80				

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SAMPLE DATA

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34A	SDG No.:	O1233
Lab Sample ID:	O1233-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075172.D	1		01/23/23 13:36	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.99	U	0.99	5.80	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.80	ug/Kg
75-01-4	Vinyl Chloride	1.10	U	1.10	5.80	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.80	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	5.80	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.80	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	0.83	5.80	ug/Kg
75-35-4	1,1-Dichloroethene	0.99	U	0.99	5.80	ug/Kg
67-64-1	Acetone	22.2	J	14.1	28.9	ug/Kg
75-15-0	Carbon Disulfide	0.87	U	0.87	5.80	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.10	U	1.10	5.80	ug/Kg
79-20-9	Methyl Acetate	1.50	U	1.50	5.80	ug/Kg
75-09-2	Methylene Chloride	6.90	U	6.90	11.6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.79	U	0.79	5.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.81	U	0.81	5.80	ug/Kg
110-82-7	Cyclohexane	0.97	U	0.97	5.80	ug/Kg
78-93-3	2-Butanone	8.40	U	8.40	28.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.91	U	0.91	5.80	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.79	U	0.79	5.80	ug/Kg
74-97-5	Bromochloromethane	0.94	U	0.94	5.80	ug/Kg
67-66-3	Chloroform	0.77	U	0.77	5.80	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.87	U	0.87	5.80	ug/Kg
108-87-2	Methylcyclohexane	0.92	U	0.92	5.80	ug/Kg
71-43-2	Benzene	0.76	U	0.76	5.80	ug/Kg
107-06-2	1,2-Dichloroethane	0.97	U	0.97	5.80	ug/Kg
79-01-6	Trichloroethene	0.84	U	0.84	5.80	ug/Kg
78-87-5	1,2-Dichloropropane	0.75	U	0.75	5.80	ug/Kg
75-27-4	Bromodichloromethane	0.81	U	0.81	5.80	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.30	U	5.30	28.9	ug/Kg
108-88-3	Toluene	0.73	U	0.73	5.80	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.86	U	0.86	5.80	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.82	U	0.82	5.80	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34A	SDG No.:	O1233
Lab Sample ID:	O1233-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075172.D	1		01/23/23 13:36	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.99	U	0.99	5.80	ug/Kg
591-78-6	2-Hexanone	5.40	U	5.40	28.9	ug/Kg
124-48-1	Dibromochloromethane	0.87	U	0.87	5.80	ug/Kg
106-93-4	1,2-Dibromoethane	0.87	U	0.87	5.80	ug/Kg
127-18-4	Tetrachloroethene	0.88	U	0.88	5.80	ug/Kg
108-90-7	Chlorobenzene	0.75	U	0.75	5.80	ug/Kg
100-41-4	Ethyl Benzene	0.81	U	0.81	5.80	ug/Kg
179601-23-1	m/p-Xylenes	1.70	U	1.70	11.6	ug/Kg
95-47-6	o-Xylene	0.91	U	0.91	5.80	ug/Kg
100-42-5	Styrene	0.91	U	0.91	5.80	ug/Kg
75-25-2	Bromoform	0.94	U	0.94	5.80	ug/Kg
98-82-8	Isopropylbenzene	0.83	U	0.83	5.80	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.80	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.77	U	0.77	5.80	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.73	U	0.73	5.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.74	U	0.74	5.80	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.80	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.80	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.20	U	1.20	5.80	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.5		50 - 163	117%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	52.1		58 - 134	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.8		30 - 143	108%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	67900	7.881			
540-36-3	1,4-Difluorobenzene	130000	8.781			
3114-55-4	Chlorobenzene-d5	125000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	54900	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
002916-68-9	Ethanol, 2-(trimethylsilyl)-	27.6	J		7.07	ug/Kg
	unknown11.034	6.40	J		11.0	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34A	SDG No.:	O1233
Lab Sample ID:	O1233-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075172.D	1		01/23/23 13:36	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34B	SDG No.:	O1233
Lab Sample ID:	O1233-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.7
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075173.D	1		01/23/23 14:04	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.94	U	0.94	5.40	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.40	ug/Kg
75-01-4	Vinyl Chloride	0.99	U	0.99	5.40	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.40	ug/Kg
75-00-3	Chloroethane	0.97	U	0.97	5.40	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.40	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.78	U	0.78	5.40	ug/Kg
75-35-4	1,1-Dichloroethene	0.94	U	0.94	5.40	ug/Kg
67-64-1	Acetone	13.3	U	13.3	27.2	ug/Kg
75-15-0	Carbon Disulfide	0.82	U	0.82	5.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.40	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.40	ug/Kg
75-09-2	Methylene Chloride	6.50	U	6.50	10.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.74	U	0.74	5.40	ug/Kg
75-34-3	1,1-Dichloroethane	0.76	U	0.76	5.40	ug/Kg
110-82-7	Cyclohexane	0.92	U	0.92	5.40	ug/Kg
78-93-3	2-Butanone	7.90	U	7.90	27.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.86	U	0.86	5.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.74	U	0.74	5.40	ug/Kg
74-97-5	Bromochloromethane	0.88	U	0.88	5.40	ug/Kg
67-66-3	Chloroform	0.73	U	0.73	5.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.82	U	0.82	5.40	ug/Kg
108-87-2	Methylcyclohexane	0.87	U	0.87	5.40	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.40	ug/Kg
107-06-2	1,2-Dichloroethane	0.92	U	0.92	5.40	ug/Kg
79-01-6	Trichloroethene	0.80	U	0.80	5.40	ug/Kg
78-87-5	1,2-Dichloropropane	0.71	U	0.71	5.40	ug/Kg
75-27-4	Bromodichloromethane	0.76	U	0.76	5.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.00	U	5.00	27.2	ug/Kg
108-88-3	Toluene	0.69	U	0.69	5.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.81	U	0.81	5.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.77	U	0.77	5.40	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34B	SDG No.:	O1233
Lab Sample ID:	O1233-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.7
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075173.D	1		01/23/23 14:04	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.94	U	0.94	5.40	ug/Kg
591-78-6	2-Hexanone	5.10	U	5.10	27.2	ug/Kg
124-48-1	Dibromochloromethane	0.82	U	0.82	5.40	ug/Kg
106-93-4	1,2-Dibromoethane	0.82	U	0.82	5.40	ug/Kg
127-18-4	Tetrachloroethene	0.83	U	0.83	5.40	ug/Kg
108-90-7	Chlorobenzene	0.71	U	0.71	5.40	ug/Kg
100-41-4	Ethyl Benzene	0.76	U	0.76	5.40	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	10.9	ug/Kg
95-47-6	o-Xylene	0.86	U	0.86	5.40	ug/Kg
100-42-5	Styrene	0.86	U	0.86	5.40	ug/Kg
75-25-2	Bromoform	0.88	U	0.88	5.40	ug/Kg
98-82-8	Isopropylbenzene	0.78	U	0.78	5.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.20	U	1.20	5.40	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.73	U	0.73	5.40	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.69	U	0.69	5.40	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.70	U	0.70	5.40	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.40	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.40	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	66.4		50 - 163	133%	SPK: 50
1868-53-7	Dibromofluoromethane	53.5		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	52.7		58 - 134	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.2		30 - 143	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	49100	7.881			
540-36-3	1,4-Difluorobenzene	95000	8.781			
3114-55-4	Chlorobenzene-d5	93600	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	41800	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
001066-40-6	Silanol, trimethyl-	24.0	J		7.07	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34B	SDG No.:	O1233
Lab Sample ID:	O1233-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.7
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075173.D	1		01/23/23 14:04	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36A	SDG No.:	O1233
Lab Sample ID:	O1233-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.6
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075174.D	1		01/23/23 14:32	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.95	U	0.95	5.50	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.50	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.50	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.50	ug/Kg
75-00-3	Chloroethane	0.99	U	0.99	5.50	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.50	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	0.80	5.50	ug/Kg
75-35-4	1,1-Dichloroethene	0.95	U	0.95	5.50	ug/Kg
67-64-1	Acetone	17.6	J	13.5	27.7	ug/Kg
75-15-0	Carbon Disulfide	0.83	U	0.83	5.50	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.50	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.50	ug/Kg
75-09-2	Methylene Chloride	6.60	U	6.60	11.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.75	U	0.75	5.50	ug/Kg
75-34-3	1,1-Dichloroethane	0.78	U	0.78	5.50	ug/Kg
110-82-7	Cyclohexane	0.93	U	0.93	5.50	ug/Kg
78-93-3	2-Butanone	8.10	U	8.10	27.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.88	U	0.88	5.50	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.75	5.50	ug/Kg
74-97-5	Bromochloromethane	0.90	U	0.90	5.50	ug/Kg
67-66-3	Chloroform	0.74	U	0.74	5.50	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.50	ug/Kg
108-87-2	Methylcyclohexane	0.89	U	0.89	5.50	ug/Kg
71-43-2	Benzene	0.73	U	0.73	5.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.93	U	0.93	5.50	ug/Kg
79-01-6	Trichloroethene	0.81	U	0.81	5.50	ug/Kg
78-87-5	1,2-Dichloropropane	0.72	U	0.72	5.50	ug/Kg
75-27-4	Bromodichloromethane	0.78	U	0.78	5.50	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.10	U	5.10	27.7	ug/Kg
108-88-3	Toluene	0.70	U	0.70	5.50	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.82	U	0.82	5.50	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.79	U	0.79	5.50	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36A	SDG No.:	O1233
Lab Sample ID:	O1233-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.6
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075174.D	1		01/23/23 14:32	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.95	U	0.95	5.50	ug/Kg
591-78-6	2-Hexanone	5.20	U	5.20	27.7	ug/Kg
124-48-1	Dibromochloromethane	0.83	U	0.83	5.50	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	0.83	5.50	ug/Kg
127-18-4	Tetrachloroethene	0.84	U	0.84	5.50	ug/Kg
108-90-7	Chlorobenzene	0.72	U	0.72	5.50	ug/Kg
100-41-4	Ethyl Benzene	0.78	U	0.78	5.50	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	11.1	ug/Kg
95-47-6	o-Xylene	0.88	U	0.88	5.50	ug/Kg
100-42-5	Styrene	0.88	U	0.88	5.50	ug/Kg
75-25-2	Bromoform	0.90	U	0.90	5.50	ug/Kg
98-82-8	Isopropylbenzene	0.80	U	0.80	5.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.50	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.74	U	0.74	5.50	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.70	U	0.70	5.50	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	5.50	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.50	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.50	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.50	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.8		50 - 163	100%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		54 - 147	94%	SPK: 50
2037-26-5	Toluene-d8	51.5		58 - 134	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.5		30 - 143	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	88000	7.875			
540-36-3	1,4-Difluorobenzene	171000	8.781			
3114-55-4	Chlorobenzene-d5	158000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	64200	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
001066-40-6	Silanol, trimethyl-	9.90	J		7.07	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36A	SDG No.:	O1233
Lab Sample ID:	O1233-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.6
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075174.D	1		01/23/23 14:32	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36B	SDG No.:	O1233
Lab Sample ID:	O1233-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075158.D	1		01/20/23 17:26	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.94	U	0.94	5.40	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.40	ug/Kg
75-01-4	Vinyl Chloride	0.99	U	0.99	5.40	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.40	ug/Kg
75-00-3	Chloroethane	0.97	U	0.97	5.40	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.40	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.78	U	0.78	5.40	ug/Kg
75-35-4	1,1-Dichloroethene	0.94	U	0.94	5.40	ug/Kg
67-64-1	Acetone	13.3	U	13.3	27.2	ug/Kg
75-15-0	Carbon Disulfide	0.82	U	0.82	5.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.40	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.40	ug/Kg
75-09-2	Methylene Chloride	6.50	U	6.50	10.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.74	U	0.74	5.40	ug/Kg
75-34-3	1,1-Dichloroethane	0.76	U	0.76	5.40	ug/Kg
110-82-7	Cyclohexane	0.91	U	0.91	5.40	ug/Kg
78-93-3	2-Butanone	7.90	U	7.90	27.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.86	U	0.86	5.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.74	U	0.74	5.40	ug/Kg
74-97-5	Bromochloromethane	0.88	U	0.88	5.40	ug/Kg
67-66-3	Chloroform	0.73	U	0.73	5.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.82	U	0.82	5.40	ug/Kg
108-87-2	Methylcyclohexane	0.87	U	0.87	5.40	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.40	ug/Kg
107-06-2	1,2-Dichloroethane	0.91	U	0.91	5.40	ug/Kg
79-01-6	Trichloroethene	0.79	U	0.79	5.40	ug/Kg
78-87-5	1,2-Dichloropropane	0.71	U	0.71	5.40	ug/Kg
75-27-4	Bromodichloromethane	0.76	U	0.76	5.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.00	U	5.00	27.2	ug/Kg
108-88-3	Toluene	0.69	U	0.69	5.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.81	U	0.81	5.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.77	U	0.77	5.40	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36B	SDG No.:	O1233
Lab Sample ID:	O1233-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075158.D	1		01/20/23 17:26	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.94	U	0.94	5.40	ug/Kg
591-78-6	2-Hexanone	5.10	U	5.10	27.2	ug/Kg
124-48-1	Dibromochloromethane	0.82	U	0.82	5.40	ug/Kg
106-93-4	1,2-Dibromoethane	0.82	U	0.82	5.40	ug/Kg
127-18-4	Tetrachloroethene	0.83	U	0.83	5.40	ug/Kg
108-90-7	Chlorobenzene	0.71	U	0.71	5.40	ug/Kg
100-41-4	Ethyl Benzene	0.76	U	0.76	5.40	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	10.9	ug/Kg
95-47-6	o-Xylene	0.86	U	0.86	5.40	ug/Kg
100-42-5	Styrene	0.86	U	0.86	5.40	ug/Kg
75-25-2	Bromoform	0.88	U	0.88	5.40	ug/Kg
98-82-8	Isopropylbenzene	0.78	U	0.78	5.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.20	U	1.20	5.40	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.73	U	0.73	5.40	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.69	U	0.69	5.40	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.70	U	0.70	5.40	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.40	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.40	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	92.5	*	50 - 163	185%	SPK: 50
1868-53-7	Dibromofluoromethane	56.1		54 - 147	112%	SPK: 50
2037-26-5	Toluene-d8	51.5		58 - 134	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	60.1		30 - 143	120%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	4930	7.875			
540-36-3	1,4-Difluorobenzene	11100	8.781			
3114-55-4	Chlorobenzene-d5	10700	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	5310	13.522			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36B	SDG No.:	O1233
Lab Sample ID:	O1233-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075158.D	1		01/20/23 17:26	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36BRE	SDG No.:	O1233
Lab Sample ID:	O1233-05RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075175.D	1		01/23/23 15:00	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.95	U	0.95	5.50	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.50	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.50	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.50	ug/Kg
75-00-3	Chloroethane	0.98	U	0.98	5.50	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.50	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.79	U	0.79	5.50	ug/Kg
75-35-4	1,1-Dichloroethene	0.95	U	0.95	5.50	ug/Kg
67-64-1	Acetone	13.4	U	13.4	27.5	ug/Kg
75-15-0	Carbon Disulfide	0.83	U	0.83	5.50	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.50	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.50	ug/Kg
75-09-2	Methylene Chloride	6.60	U	6.60	11.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.75	U	0.75	5.50	ug/Kg
75-34-3	1,1-Dichloroethane	0.77	U	0.77	5.50	ug/Kg
110-82-7	Cyclohexane	0.93	U	0.93	5.50	ug/Kg
78-93-3	2-Butanone	8.00	U	8.00	27.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.87	U	0.87	5.50	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.75	5.50	ug/Kg
74-97-5	Bromochloromethane	0.89	U	0.89	5.50	ug/Kg
67-66-3	Chloroform	0.74	U	0.74	5.50	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.50	ug/Kg
108-87-2	Methylcyclohexane	0.88	U	0.88	5.50	ug/Kg
71-43-2	Benzene	0.73	U	0.73	5.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.93	U	0.93	5.50	ug/Kg
79-01-6	Trichloroethene	0.80	U	0.80	5.50	ug/Kg
78-87-5	1,2-Dichloropropane	0.72	U	0.72	5.50	ug/Kg
75-27-4	Bromodichloromethane	0.77	U	0.77	5.50	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.00	U	5.00	27.5	ug/Kg
108-88-3	Toluene	0.69	U	0.69	5.50	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.82	U	0.82	5.50	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.78	U	0.78	5.50	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36BRE	SDG No.:	O1233
Lab Sample ID:	O1233-05RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075175.D	1		01/23/23 15:00	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.95	U	0.95	5.50	ug/Kg
591-78-6	2-Hexanone	5.20	U	5.20	27.5	ug/Kg
124-48-1	Dibromochloromethane	0.83	U	0.83	5.50	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	0.83	5.50	ug/Kg
127-18-4	Tetrachloroethene	0.84	U	0.84	5.50	ug/Kg
108-90-7	Chlorobenzene	0.72	U	0.72	5.50	ug/Kg
100-41-4	Ethyl Benzene	0.77	U	0.77	5.50	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	11.0	ug/Kg
95-47-6	o-Xylene	0.87	U	0.87	5.50	ug/Kg
100-42-5	Styrene	0.87	U	0.87	5.50	ug/Kg
75-25-2	Bromoform	0.89	U	0.89	5.50	ug/Kg
98-82-8	Isopropylbenzene	0.79	U	0.79	5.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.20	U	1.20	5.50	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.74	U	0.74	5.50	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.69	U	0.69	5.50	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	5.50	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.50	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.50	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.50	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	68.1		50 - 163	136%	SPK: 50
1868-53-7	Dibromofluoromethane	52.3		54 - 147	105%	SPK: 50
2037-26-5	Toluene-d8	48.9		58 - 134	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.8		30 - 143	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	2290	7.881			
540-36-3	1,4-Difluorobenzene	4730	8.775			
3114-55-4	Chlorobenzene-d5	4220	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	1550	13.522			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36BRE	SDG No.:	O1233
Lab Sample ID:	O1233-05RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075175.D	1		01/23/23 15:00	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37A	SDG No.:	O1233
Lab Sample ID:	O1233-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87.9
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075176.D	1		01/23/23 15:27	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.98	U	0.98	5.70	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.70	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.70	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.70	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	5.70	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.70	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.82	U	0.82	5.70	ug/Kg
75-35-4	1,1-Dichloroethene	0.98	U	0.98	5.70	ug/Kg
67-64-1	Acetone	13.9	U	13.9	28.4	ug/Kg
75-15-0	Carbon Disulfide	0.85	U	0.85	5.70	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.10	U	1.10	5.70	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.70	ug/Kg
75-09-2	Methylene Chloride	6.80	U	6.80	11.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.77	U	0.77	5.70	ug/Kg
75-34-3	1,1-Dichloroethane	0.80	U	0.80	5.70	ug/Kg
110-82-7	Cyclohexane	0.96	U	0.96	5.70	ug/Kg
78-93-3	2-Butanone	8.30	U	8.30	28.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.90	U	0.90	5.70	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.77	U	0.77	5.70	ug/Kg
74-97-5	Bromochloromethane	0.92	U	0.92	5.70	ug/Kg
67-66-3	Chloroform	0.76	U	0.76	5.70	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.85	U	0.85	5.70	ug/Kg
108-87-2	Methylcyclohexane	0.91	U	0.91	5.70	ug/Kg
71-43-2	Benzene	0.75	U	0.75	5.70	ug/Kg
107-06-2	1,2-Dichloroethane	0.96	U	0.96	5.70	ug/Kg
79-01-6	Trichloroethene	0.83	U	0.83	5.70	ug/Kg
78-87-5	1,2-Dichloropropane	0.74	U	0.74	5.70	ug/Kg
75-27-4	Bromodichloromethane	0.80	U	0.80	5.70	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.20	U	5.20	28.4	ug/Kg
108-88-3	Toluene	0.72	U	0.72	5.70	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.84	U	0.84	5.70	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.81	U	0.81	5.70	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37A	SDG No.:	O1233
Lab Sample ID:	O1233-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87.9
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075176.D	1		01/23/23 15:27	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.98	U	0.98	5.70	ug/Kg
591-78-6	2-Hexanone	5.30	U	5.30	28.4	ug/Kg
124-48-1	Dibromochloromethane	0.85	U	0.85	5.70	ug/Kg
106-93-4	1,2-Dibromoethane	0.85	U	0.85	5.70	ug/Kg
127-18-4	Tetrachloroethene	0.86	U	0.86	5.70	ug/Kg
108-90-7	Chlorobenzene	0.74	U	0.74	5.70	ug/Kg
100-41-4	Ethyl Benzene	0.80	U	0.80	5.70	ug/Kg
179601-23-1	m/p-Xylenes	1.70	U	1.70	11.4	ug/Kg
95-47-6	o-Xylene	0.90	U	0.90	5.70	ug/Kg
100-42-5	Styrene	0.90	U	0.90	5.70	ug/Kg
75-25-2	Bromoform	0.92	U	0.92	5.70	ug/Kg
98-82-8	Isopropylbenzene	0.82	U	0.82	5.70	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.70	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.76	U	0.76	5.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.72	U	0.72	5.70	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.73	U	0.73	5.70	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.70	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.70	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.70	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.8		50 - 163	102%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		54 - 147	96%	SPK: 50
2037-26-5	Toluene-d8	51.4		58 - 134	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.0		30 - 143	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	85100	7.881			
540-36-3	1,4-Difluorobenzene	168000	8.781			
3114-55-4	Chlorobenzene-d5	154000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	63400	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
002916-68-9	Ethanol, 2-(trimethylsilyl)-	11.8	J		7.08	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37A	SDG No.:	O1233
Lab Sample ID:	O1233-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87.9
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075176.D	1		01/23/23 15:27	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37B	SDG No.:	O1233
Lab Sample ID:	O1233-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.5
Sample Wt/Vol:	5.02 Units: g	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
VY012315.D	1		01/23/23 15:48	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	1.00	6.00	ug/Kg
74-87-3	Chloromethane	1.30	U	1.30	6.00	ug/Kg
75-01-4	Vinyl Chloride	1.10	U	1.10	6.00	ug/Kg
74-83-9	Bromomethane	1.40	U	1.40	6.00	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	6.00	ug/Kg
75-69-4	Trichlorofluoromethane	1.20	U	1.20	6.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.86	U	0.86	6.00	ug/Kg
75-35-4	1,1-Dichloroethene	1.00	U	1.00	6.00	ug/Kg
67-64-1	Acetone	20.6	J	14.6	29.8	ug/Kg
75-15-0	Carbon Disulfide	0.89	U	0.89	6.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.10	U	1.10	6.00	ug/Kg
79-20-9	Methyl Acetate	1.50	U	1.50	6.00	ug/Kg
75-09-2	Methylene Chloride	7.10	U	7.10	11.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.81	U	0.81	6.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.83	U	0.83	6.00	ug/Kg
110-82-7	Cyclohexane	1.00	U	1.00	6.00	ug/Kg
78-93-3	2-Butanone	8.70	U	8.70	29.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.94	U	0.94	6.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.81	U	0.81	6.00	ug/Kg
74-97-5	Bromochloromethane	0.97	U	0.97	6.00	ug/Kg
67-66-3	Chloroform	0.80	U	0.80	6.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.89	U	0.89	6.00	ug/Kg
108-87-2	Methylcyclohexane	0.95	U	0.95	6.00	ug/Kg
71-43-2	Benzene	0.79	U	0.79	6.00	ug/Kg
107-06-2	1,2-Dichloroethane	1.00	U	1.00	6.00	ug/Kg
79-01-6	Trichloroethene	0.87	U	0.87	6.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.78	U	0.78	6.00	ug/Kg
75-27-4	Bromodichloromethane	0.83	U	0.83	6.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.50	U	5.50	29.8	ug/Kg
108-88-3	Toluene	0.75	U	0.75	6.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.88	U	0.88	6.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.85	U	0.85	6.00	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37B	SDG No.:	O1233
Lab Sample ID:	O1233-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.5
Sample Wt/Vol:	5.02 Units: g	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
VY012315.D	1		01/23/23 15:48	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1.00	U	1.00	6.00	ug/Kg
591-78-6	2-Hexanone	5.60	U	5.60	29.8	ug/Kg
124-48-1	Dibromochloromethane	0.89	U	0.89	6.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.89	U	0.89	6.00	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	0.91	6.00	ug/Kg
108-90-7	Chlorobenzene	0.78	U	0.78	6.00	ug/Kg
100-41-4	Ethyl Benzene	0.83	U	0.83	6.00	ug/Kg
179601-23-1	m/p-Xylenes	1.80	U	1.80	11.9	ug/Kg
95-47-6	o-Xylene	0.94	U	0.94	6.00	ug/Kg
100-42-5	Styrene	0.94	U	0.94	6.00	ug/Kg
75-25-2	Bromoform	0.97	U	0.97	6.00	ug/Kg
98-82-8	Isopropylbenzene	0.86	U	0.86	6.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	6.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.80	U	0.80	6.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.75	U	0.75	6.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.76	U	0.76	6.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.50	U	1.50	6.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	6.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.20	U	1.20	6.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	83.0	*	50 - 163	166%	SPK: 50
1868-53-7	Dibromofluoromethane	60.1		54 - 147	120%	SPK: 50
2037-26-5	Toluene-d8	66.9		58 - 134	134%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		30 - 143	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	35900	7.789			
540-36-3	1,4-Difluorobenzene	57300	8.691			
3114-55-4	Chlorobenzene-d5	56000	11.489			
3855-82-1	1,4-Dichlorobenzene-d4	24400	13.428			
TENTATIVE IDENTIFIED COMPOUNDS						
004403-13-8	Ethylene glycol, TMS derivative	40.0	J		6.97	ug/Kg
	unknown10.947	8.50	J		10.9	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37B	SDG No.:	O1233
Lab Sample ID:	O1233-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.5
Sample Wt/Vol:	5.02 Units: g	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
VY012315.D	1		01/23/23 15:48	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38A	SDG No.:	O1233
Lab Sample ID:	O1233-08	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075161.D	1		01/20/23 18:49	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.96	U	0.96	5.60	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.60	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.60	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.60	ug/Kg
75-00-3	Chloroethane	0.99	U	0.99	5.60	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.60	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	0.80	5.60	ug/Kg
75-35-4	1,1-Dichloroethene	0.96	U	0.96	5.60	ug/Kg
67-64-1	Acetone	13.6	U	13.6	27.8	ug/Kg
75-15-0	Carbon Disulfide	0.83	U	0.83	5.60	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.60	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.60	ug/Kg
75-09-2	Methylene Chloride	6.60	U	6.60	11.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.76	U	0.76	5.60	ug/Kg
75-34-3	1,1-Dichloroethane	0.78	U	0.78	5.60	ug/Kg
110-82-7	Cyclohexane	0.94	U	0.94	5.60	ug/Kg
78-93-3	2-Butanone	8.10	U	8.10	27.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.88	U	0.88	5.60	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.76	U	0.76	5.60	ug/Kg
74-97-5	Bromochloromethane	0.90	U	0.90	5.60	ug/Kg
67-66-3	Chloroform	0.75	U	0.75	5.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.60	ug/Kg
108-87-2	Methylcyclohexane	0.89	U	0.89	5.60	ug/Kg
71-43-2	Benzene	0.73	U	0.73	5.60	ug/Kg
107-06-2	1,2-Dichloroethane	0.94	U	0.94	5.60	ug/Kg
79-01-6	Trichloroethene	0.81	U	0.81	5.60	ug/Kg
78-87-5	1,2-Dichloropropane	0.72	U	0.72	5.60	ug/Kg
75-27-4	Bromodichloromethane	0.78	U	0.78	5.60	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.10	U	5.10	27.8	ug/Kg
108-88-3	Toluene	0.70	U	0.70	5.60	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.82	U	0.82	5.60	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.79	U	0.79	5.60	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38A	SDG No.:	O1233
Lab Sample ID:	O1233-08	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075161.D	1		01/20/23 18:49	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.96	U	0.96	5.60	ug/Kg
591-78-6	2-Hexanone	5.20	U	5.20	27.8	ug/Kg
124-48-1	Dibromochloromethane	0.83	U	0.83	5.60	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	0.83	5.60	ug/Kg
127-18-4	Tetrachloroethene	0.85	U	0.85	5.60	ug/Kg
108-90-7	Chlorobenzene	0.72	U	0.72	5.60	ug/Kg
100-41-4	Ethyl Benzene	0.78	U	0.78	5.60	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	11.1	ug/Kg
95-47-6	o-Xylene	0.88	U	0.88	5.60	ug/Kg
100-42-5	Styrene	0.88	U	0.88	5.60	ug/Kg
75-25-2	Bromoform	0.90	U	0.90	5.60	ug/Kg
98-82-8	Isopropylbenzene	0.80	U	0.80	5.60	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.60	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.75	U	0.75	5.60	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.70	U	0.70	5.60	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	5.60	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.60	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.60	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	90.7	*	50 - 163	181%	SPK: 50
1868-53-7	Dibromofluoromethane	55.9		54 - 147	112%	SPK: 50
2037-26-5	Toluene-d8	55.2		58 - 134	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.9		30 - 143	114%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	3460	7.875			
540-36-3	1,4-Difluorobenzene	6980	8.775			
3114-55-4	Chlorobenzene-d5	6960	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	2980	13.516			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38A	SDG No.:	O1233
Lab Sample ID:	O1233-08	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075161.D	1		01/20/23 18:49	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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M = MS/MSD acceptance criteria did not meet requirements

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38ARE	SDG No.:	O1233
Lab Sample ID:	O1233-08RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.04 Units: g	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
VY012316.D	1		01/23/23 16:11	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.96	U	0.96	5.60	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.60	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.60	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.60	ug/Kg
75-00-3	Chloroethane	0.99	U	0.99	5.60	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.60	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	0.80	5.60	ug/Kg
75-35-4	1,1-Dichloroethene	0.96	U	0.96	5.60	ug/Kg
67-64-1	Acetone	13.6	U	13.6	27.8	ug/Kg
75-15-0	Carbon Disulfide	0.83	U	0.83	5.60	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.60	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.60	ug/Kg
75-09-2	Methylene Chloride	6.60	U	6.60	11.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.76	U	0.76	5.60	ug/Kg
75-34-3	1,1-Dichloroethane	0.78	U	0.78	5.60	ug/Kg
110-82-7	Cyclohexane	0.93	U	0.93	5.60	ug/Kg
78-93-3	2-Butanone	8.10	U	8.10	27.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.88	U	0.88	5.60	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.76	U	0.76	5.60	ug/Kg
74-97-5	Bromochloromethane	0.90	U	0.90	5.60	ug/Kg
67-66-3	Chloroform	0.74	U	0.74	5.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.60	ug/Kg
108-87-2	Methylcyclohexane	0.89	U	0.89	5.60	ug/Kg
71-43-2	Benzene	0.73	U	0.73	5.60	ug/Kg
107-06-2	1,2-Dichloroethane	0.93	U	0.93	5.60	ug/Kg
79-01-6	Trichloroethene	0.81	U	0.81	5.60	ug/Kg
78-87-5	1,2-Dichloropropane	0.72	U	0.72	5.60	ug/Kg
75-27-4	Bromodichloromethane	0.78	U	0.78	5.60	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.10	U	5.10	27.8	ug/Kg
108-88-3	Toluene	0.70	U	0.70	5.60	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.82	U	0.82	5.60	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.79	U	0.79	5.60	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38ARE	SDG No.:	O1233
Lab Sample ID:	O1233-08RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.04 Units: g	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
VY012316.D	1		01/23/23 16:11	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.96	U	0.96	5.60	ug/Kg
591-78-6	2-Hexanone	5.20	U	5.20	27.8	ug/Kg
124-48-1	Dibromochloromethane	0.83	U	0.83	5.60	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	0.83	5.60	ug/Kg
127-18-4	Tetrachloroethene	0.84	U	0.84	5.60	ug/Kg
108-90-7	Chlorobenzene	0.72	U	0.72	5.60	ug/Kg
100-41-4	Ethyl Benzene	0.78	U	0.78	5.60	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	11.1	ug/Kg
95-47-6	o-Xylene	0.88	U	0.88	5.60	ug/Kg
100-42-5	Styrene	0.88	U	0.88	5.60	ug/Kg
75-25-2	Bromoform	0.90	U	0.90	5.60	ug/Kg
98-82-8	Isopropylbenzene	0.80	U	0.80	5.60	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.60	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.74	U	0.74	5.60	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.70	U	0.70	5.60	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	5.60	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.60	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.60	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	81.0		50 - 163	162%	SPK: 50
1868-53-7	Dibromofluoromethane	26.2	*	54 - 147	52%	SPK: 50
2037-26-5	Toluene-d8	66.0		58 - 134	132%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.1		30 - 143	86%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	4900	7.795			
540-36-3	1,4-Difluorobenzene	8010	8.691			
3114-55-4	Chlorobenzene-d5	7430	11.496			
3855-82-1	1,4-Dichlorobenzene-d4	2570	13.428			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38ARE	SDG No.:	O1233
Lab Sample ID:	O1233-08RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.04 Units: g	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
VY012316.D	1		01/23/23 16:11	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38B	SDG No.:	O1233
Lab Sample ID:	O1233-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075162.D	1		01/20/23 19:17	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.10	U	1.10	6.20	ug/Kg
74-87-3	Chloromethane	1.30	U	1.30	6.20	ug/Kg
75-01-4	Vinyl Chloride	1.10	U	1.10	6.20	ug/Kg
74-83-9	Bromomethane	1.40	U	1.40	6.20	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	6.20	ug/Kg
75-69-4	Trichlorofluoromethane	1.20	U	1.20	6.20	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.89	U	0.89	6.20	ug/Kg
75-35-4	1,1-Dichloroethene	1.10	U	1.10	6.20	ug/Kg
67-64-1	Acetone	15.1	U	15.1	30.9	ug/Kg
75-15-0	Carbon Disulfide	0.93	U	0.93	6.20	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.20	U	1.20	6.20	ug/Kg
79-20-9	Methyl Acetate	1.60	U	1.60	6.20	ug/Kg
75-09-2	Methylene Chloride	7.40	U	7.40	12.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.84	U	0.84	6.20	ug/Kg
75-34-3	1,1-Dichloroethane	0.87	U	0.87	6.20	ug/Kg
110-82-7	Cyclohexane	1.00	U	1.00	6.20	ug/Kg
78-93-3	2-Butanone	9.00	U	9.00	30.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.98	U	0.98	6.20	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.84	U	0.84	6.20	ug/Kg
74-97-5	Bromochloromethane	1.00	U	1.00	6.20	ug/Kg
67-66-3	Chloroform	0.83	U	0.83	6.20	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.93	U	0.93	6.20	ug/Kg
108-87-2	Methylcyclohexane	0.99	U	0.99	6.20	ug/Kg
71-43-2	Benzene	0.82	U	0.82	6.20	ug/Kg
107-06-2	1,2-Dichloroethane	1.00	U	1.00	6.20	ug/Kg
79-01-6	Trichloroethene	0.90	U	0.90	6.20	ug/Kg
78-87-5	1,2-Dichloropropane	0.80	U	0.80	6.20	ug/Kg
75-27-4	Bromodichloromethane	0.87	U	0.87	6.20	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.70	U	5.70	30.9	ug/Kg
108-88-3	Toluene	0.78	U	0.78	6.20	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.92	U	0.92	6.20	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.88	U	0.88	6.20	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38B	SDG No.:	O1233
Lab Sample ID:	O1233-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075162.D	1		01/20/23 19:17	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1.10	U	1.10	6.20	ug/Kg
591-78-6	2-Hexanone	5.80	U	5.80	30.9	ug/Kg
124-48-1	Dibromochloromethane	0.93	U	0.93	6.20	ug/Kg
106-93-4	1,2-Dibromoethane	0.93	U	0.93	6.20	ug/Kg
127-18-4	Tetrachloroethene	0.94	U	0.94	6.20	ug/Kg
108-90-7	Chlorobenzene	0.80	U	0.80	6.20	ug/Kg
100-41-4	Ethyl Benzene	0.87	U	0.87	6.20	ug/Kg
179601-23-1	m/p-Xylenes	1.80	U	1.80	12.4	ug/Kg
95-47-6	o-Xylene	0.98	U	0.98	6.20	ug/Kg
100-42-5	Styrene	0.98	U	0.98	6.20	ug/Kg
75-25-2	Bromoform	1.00	U	1.00	6.20	ug/Kg
98-82-8	Isopropylbenzene	0.89	U	0.89	6.20	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.40	U	1.40	6.20	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.83	U	0.83	6.20	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.78	U	0.78	6.20	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.79	U	0.79	6.20	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.50	U	1.50	6.20	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.20	U	1.20	6.20	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.20	U	1.20	6.20	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	74.0		50 - 163	148%	SPK: 50
1868-53-7	Dibromofluoromethane	54.8		54 - 147	110%	SPK: 50
2037-26-5	Toluene-d8	54.3		58 - 134	109%	SPK: 50
460-00-4	4-Bromofluorobenzene	60.4		30 - 143	121%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	41900	7.881			
540-36-3	1,4-Difluorobenzene	88400	8.781			
3114-55-4	Chlorobenzene-d5	88300	11.586			
3855-82-1	1,4-Dichlorobenzene-d4	40700	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
000111-65-9	Octane	6.70	J		10.5	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38B	SDG No.:	O1233
Lab Sample ID:	O1233-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075162.D	1		01/20/23 19:17	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38BRE	SDG No.:	O1233
Lab Sample ID:	O1233-09RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075178.D	1		01/23/23 16:23	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.10	U	1.10	6.10	ug/Kg
74-87-3	Chloromethane	1.30	U	1.30	6.10	ug/Kg
75-01-4	Vinyl Chloride	1.10	U	1.10	6.10	ug/Kg
74-83-9	Bromomethane	1.40	U	1.40	6.10	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	6.10	ug/Kg
75-69-4	Trichlorofluoromethane	1.20	U	1.20	6.10	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.88	U	0.88	6.10	ug/Kg
75-35-4	1,1-Dichloroethene	1.10	U	1.10	6.10	ug/Kg
67-64-1	Acetone	15.0	U	15.0	30.7	ug/Kg
75-15-0	Carbon Disulfide	0.92	U	0.92	6.10	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.10	U	1.10	6.10	ug/Kg
79-20-9	Methyl Acetate	1.50	U	1.50	6.10	ug/Kg
75-09-2	Methylene Chloride	7.30	U	7.30	12.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.83	U	0.83	6.10	ug/Kg
75-34-3	1,1-Dichloroethane	0.86	U	0.86	6.10	ug/Kg
110-82-7	Cyclohexane	1.00	U	1.00	6.10	ug/Kg
78-93-3	2-Butanone	8.90	U	8.90	30.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.97	U	0.97	6.10	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.83	U	0.83	6.10	ug/Kg
74-97-5	Bromochloromethane	0.99	U	0.99	6.10	ug/Kg
67-66-3	Chloroform	0.82	U	0.82	6.10	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.92	U	0.92	6.10	ug/Kg
108-87-2	Methylcyclohexane	0.98	U	0.98	6.10	ug/Kg
71-43-2	Benzene	0.81	U	0.81	6.10	ug/Kg
107-06-2	1,2-Dichloroethane	1.00	U	1.00	6.10	ug/Kg
79-01-6	Trichloroethene	0.90	U	0.90	6.10	ug/Kg
78-87-5	1,2-Dichloropropane	0.80	U	0.80	6.10	ug/Kg
75-27-4	Bromodichloromethane	0.86	U	0.86	6.10	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.60	U	5.60	30.7	ug/Kg
108-88-3	Toluene	0.77	U	0.77	6.10	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.91	U	0.91	6.10	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.87	U	0.87	6.10	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38BRE	SDG No.:	O1233
Lab Sample ID:	O1233-09RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075178.D	1		01/23/23 16:23	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1.10	U	1.10	6.10	ug/Kg
591-78-6	2-Hexanone	5.70	U	5.70	30.7	ug/Kg
124-48-1	Dibromochloromethane	0.92	U	0.92	6.10	ug/Kg
106-93-4	1,2-Dibromoethane	0.92	U	0.92	6.10	ug/Kg
127-18-4	Tetrachloroethene	0.93	U	0.93	6.10	ug/Kg
108-90-7	Chlorobenzene	0.80	U	0.80	6.10	ug/Kg
100-41-4	Ethyl Benzene	0.86	U	0.86	6.10	ug/Kg
179601-23-1	m/p-Xylenes	1.80	U	1.80	12.3	ug/Kg
95-47-6	o-Xylene	0.97	U	0.97	6.10	ug/Kg
100-42-5	Styrene	0.97	U	0.97	6.10	ug/Kg
75-25-2	Bromoform	0.99	U	0.99	6.10	ug/Kg
98-82-8	Isopropylbenzene	0.88	U	0.88	6.10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.40	U	1.40	6.10	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.82	U	0.82	6.10	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.77	U	0.77	6.10	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.79	U	0.79	6.10	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.50	U	1.50	6.10	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.20	U	1.20	6.10	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.20	U	1.20	6.10	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.5		50 - 163	119%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		54 - 147	97%	SPK: 50
2037-26-5	Toluene-d8	56.8		58 - 134	114%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		30 - 143	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1300	7.875			
540-36-3	1,4-Difluorobenzene	2140	8.775			
3114-55-4	Chlorobenzene-d5	1970	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	699	13.528			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38BRE	SDG No.:	O1233
Lab Sample ID:	O1233-09RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075178.D	1		01/23/23 16:23	VD012323

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
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() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38C	SDG No.:	O1233
Lab Sample ID:	O1233-11	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076364.D	1		01/23/23 14:12	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	99.5	U	99.5	580	ug/Kg
74-87-3	Chloromethane	120	U	120	580	ug/Kg
75-01-4	Vinyl Chloride	110	U	110	580	ug/Kg
74-83-9	Bromomethane	130	U	130	580	ug/Kg
75-00-3	Chloroethane	100	U	100	580	ug/Kg
75-69-4	Trichlorofluoromethane	110	U	110	580	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	83.3	U	83.3	580	ug/Kg
75-35-4	1,1-Dichloroethene	99.5	U	99.5	580	ug/Kg
67-64-1	Acetone	1400	U	1400	2900	ug/Kg
75-15-0	Carbon Disulfide	86.8	U	86.8	580	ug/Kg
1634-04-4	Methyl tert-butyl Ether	110	U	110	580	ug/Kg
79-20-9	Methyl Acetate	150	U	150	580	ug/Kg
75-09-2	Methylene Chloride	690	U	690	1200	ug/Kg
156-60-5	trans-1,2-Dichloroethene	78.7	U	78.7	580	ug/Kg
75-34-3	1,1-Dichloroethane	81.0	U	81.0	580	ug/Kg
110-82-7	Cyclohexane	4600		97.2	580	ug/Kg
78-93-3	2-Butanone	840	U	840	2900	ug/Kg
56-23-5	Carbon Tetrachloride	91.4	U	91.4	580	ug/Kg
156-59-2	cis-1,2-Dichloroethene	78.7	U	78.7	580	ug/Kg
74-97-5	Bromochloromethane	93.7	U	93.7	580	ug/Kg
67-66-3	Chloroform	77.5	U	77.5	580	ug/Kg
71-55-6	1,1,1-Trichloroethane	86.8	U	86.8	580	ug/Kg
108-87-2	Methylcyclohexane	31500	E	92.6	580	ug/Kg
71-43-2	Benzene	76.4	U	76.4	580	ug/Kg
107-06-2	1,2-Dichloroethane	97.2	U	97.2	580	ug/Kg
79-01-6	Trichloroethene	84.5	U	84.5	580	ug/Kg
78-87-5	1,2-Dichloropropane	75.2	U	75.2	580	ug/Kg
75-27-4	Bromodichloromethane	81.0	U	81.0	580	ug/Kg
108-10-1	4-Methyl-2-Pentanone	530	U	530	2900	ug/Kg
108-88-3	Toluene	72.9	U	72.9	580	ug/Kg
10061-02-6	t-1,3-Dichloropropene	85.6	U	85.6	580	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	82.2	U	82.2	580	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38C	SDG No.:	O1233
Lab Sample ID:	O1233-11	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076364.D	1		01/23/23 14:12	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	99.5	U	99.5	580	ug/Kg
591-78-6	2-Hexanone	540	U	540	2900	ug/Kg
124-48-1	Dibromochloromethane	86.8	U	86.8	580	ug/Kg
106-93-4	1,2-Dibromoethane	86.8	U	86.8	580	ug/Kg
127-18-4	Tetrachloroethene	87.9	U	87.9	580	ug/Kg
108-90-7	Chlorobenzene	75.2	U	75.2	580	ug/Kg
100-41-4	Ethyl Benzene	860		81.0	580	ug/Kg
179601-23-1	m/p-Xylenes	2400		170	1200	ug/Kg
95-47-6	o-Xylene	320	J	91.4	580	ug/Kg
100-42-5	Styrene	91.4	U	91.4	580	ug/Kg
75-25-2	Bromoform	93.7	U	93.7	580	ug/Kg
98-82-8	Isopropylbenzene	1500		83.3	580	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	130	U	130	580	ug/Kg
541-73-1	1,3-Dichlorobenzene	77.5	U	77.5	580	ug/Kg
106-46-7	1,4-Dichlorobenzene	72.9	U	72.9	580	ug/Kg
95-50-1	1,2-Dichlorobenzene	74.1	U	74.1	580	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	140	U	140	580	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	110	U	110	580	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	120	U	120	580	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.8		50 - 163	96%	SPK: 50
1868-53-7	Dibromofluoromethane	45.9		54 - 147	92%	SPK: 50
2037-26-5	Toluene-d8	65.5		58 - 134	131%	SPK: 50
460-00-4	4-Bromofluorobenzene	91.1	*	30 - 143	182%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	380000	8.224			
540-36-3	1,4-Difluorobenzene	594000	9.1			
3114-55-4	Chlorobenzene-d5	545000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	319000	13.794			
TENTATIVE IDENTIFIED COMPOUNDS						
000142-82-5	Heptane	22000	J		8.96	ug/Kg
000592-27-8	Heptane, 2-methyl-	38200	J		10.2	ug/Kg
000589-81-1	Heptane, 3-methyl-	22900	J		10.3	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38C	SDG No.:	O1233
Lab Sample ID:	O1233-11	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076364.D	1		01/23/23 14:12	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000111-65-9	Octane	54700	J		10.7	ug/Kg
003221-61-2	Octane, 2-methyl-	49000	J		11.6	ug/Kg
002216-33-3	Octane, 3-methyl-	30700	J		11.7	ug/Kg
005911-04-6	Nonane, 3-methyl-	28400	J		12.5	ug/Kg
	unknown12.600	47300	J		12.6	ug/Kg
017301-94-9	Nonane, 4-methyl-	27300	J		12.8	ug/Kg
103-65-1	n-propylbenzene	3300	J		13.0	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	4000	J		13.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	7700	J		13.5	ug/Kg
135-98-8	sec-Butylbenzene	1300	J		13.6	ug/Kg
99-87-6	p-Isopropyltoluene	2600	J		13.7	ug/Kg
104-51-8	n-Butylbenzene	3700	J		14.1	ug/Kg
000824-90-8	1-Phenyl-1-butene	31200	J		15.0	ug/Kg

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38CDL	SDG No.:	O1233
Lab Sample ID:	O1233-11DL	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076367.D	10		01/23/23 15:25	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1000	UD	1000	5800	ug/Kg
74-87-3	Chloromethane	1200	UD	1200	5800	ug/Kg
75-01-4	Vinyl Chloride	1100	UD	1100	5800	ug/Kg
74-83-9	Bromomethane	1300	UD	1300	5800	ug/Kg
75-00-3	Chloroethane	1000	UD	1000	5800	ug/Kg
75-69-4	Trichlorofluoromethane	1100	UD	1100	5800	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	830	UD	830	5800	ug/Kg
75-35-4	1,1-Dichloroethene	1000	UD	1000	5800	ug/Kg
67-64-1	Acetone	14100	UD	14100	28900	ug/Kg
75-15-0	Carbon Disulfide	870	UD	870	5800	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1100	UD	1100	5800	ug/Kg
79-20-9	Methyl Acetate	1500	UD	1500	5800	ug/Kg
75-09-2	Methylene Chloride	6900	UD	6900	11600	ug/Kg
156-60-5	trans-1,2-Dichloroethene	790	UD	790	5800	ug/Kg
75-34-3	1,1-Dichloroethane	810	UD	810	5800	ug/Kg
110-82-7	Cyclohexane	6300	D	970	5800	ug/Kg
78-93-3	2-Butanone	8400	UD	8400	28900	ug/Kg
56-23-5	Carbon Tetrachloride	910	UD	910	5800	ug/Kg
156-59-2	cis-1,2-Dichloroethene	790	UD	790	5800	ug/Kg
74-97-5	Bromochloromethane	940	UD	940	5800	ug/Kg
67-66-3	Chloroform	780	UD	780	5800	ug/Kg
71-55-6	1,1,1-Trichloroethane	870	UD	870	5800	ug/Kg
108-87-2	Methylcyclohexane	33800	D	930	5800	ug/Kg
71-43-2	Benzene	760	UD	760	5800	ug/Kg
107-06-2	1,2-Dichloroethane	970	UD	970	5800	ug/Kg
79-01-6	Trichloroethene	840	UD	840	5800	ug/Kg
78-87-5	1,2-Dichloropropane	750	UD	750	5800	ug/Kg
75-27-4	Bromodichloromethane	810	UD	810	5800	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5300	UD	5300	28900	ug/Kg
108-88-3	Toluene	730	UD	730	5800	ug/Kg
10061-02-6	t-1,3-Dichloropropene	860	UD	860	5800	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	820	UD	820	5800	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38CDL	SDG No.:	O1233
Lab Sample ID:	O1233-11DL	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076367.D	10		01/23/23 15:25	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1000	UD	1000	5800	ug/Kg
591-78-6	2-Hexanone	5400	UD	5400	28900	ug/Kg
124-48-1	Dibromochloromethane	870	UD	870	5800	ug/Kg
106-93-4	1,2-Dibromoethane	870	UD	870	5800	ug/Kg
127-18-4	Tetrachloroethene	880	UD	880	5800	ug/Kg
108-90-7	Chlorobenzene	750	UD	750	5800	ug/Kg
100-41-4	Ethyl Benzene	1000	JD	810	5800	ug/Kg
179601-23-1	m/p-Xylenes	2800	JD	1700	11600	ug/Kg
95-47-6	o-Xylene	910	UD	910	5800	ug/Kg
100-42-5	Styrene	910	UD	910	5800	ug/Kg
75-25-2	Bromoform	940	UD	940	5800	ug/Kg
98-82-8	Isopropylbenzene	2100	JD	830	5800	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1300	UD	1300	5800	ug/Kg
541-73-1	1,3-Dichlorobenzene	780	UD	780	5800	ug/Kg
106-46-7	1,4-Dichlorobenzene	730	UD	730	5800	ug/Kg
95-50-1	1,2-Dichlorobenzene	740	UD	740	5800	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1400	UD	1400	5800	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1100	UD	1100	5800	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1200	UD	1200	5800	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.6		50 - 163	97%	SPK: 50
1868-53-7	Dibromofluoromethane	46.8		54 - 147	94%	SPK: 50
2037-26-5	Toluene-d8	52.4		58 - 134	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.2		30 - 143	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	385000	8.23			
540-36-3	1,4-Difluorobenzene	613000	9.106			
3114-55-4	Chlorobenzene-d5	549000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	255000	13.794			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38CDL	SDG No.:	O1233
Lab Sample ID:	O1233-11DL	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076367.D	10		01/23/23 15:25	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	FB01	SDG No.:	O1233
Lab Sample ID:	O1233-12	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
VN076347.D	1		01/20/23 14:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	0.17	1.00	ug/L
74-87-3	Chloromethane	0.20	U	0.20	1.00	ug/L
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
74-83-9	Bromomethane	1.60	U	1.60	5.00	ug/L
75-00-3	Chloroethane	0.26	U	0.26	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.20	U	0.20	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.17	U	0.17	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
67-64-1	Acetone	1.20	U	1.20	5.00	ug/L
75-15-0	Carbon Disulfide	0.26	U	0.26	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.18	U	0.18	1.00	ug/L
79-20-9	Methyl Acetate	0.53	U	0.53	1.00	ug/L
75-09-2	Methylene Chloride	2.80		0.18	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
110-82-7	Cyclohexane	1.20	U	1.20	5.00	ug/L
78-93-3	2-Butanone	0.82	U	0.82	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.18	U	0.18	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
74-97-5	Bromochloromethane	0.19	U	0.19	1.00	ug/L
67-66-3	Chloroform	0.18	U	0.18	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
108-87-2	Methylcyclohexane	0.13	U	0.13	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.17	U	0.17	1.00	ug/L
75-27-4	Bromodichloromethane	0.18	U	0.18	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.87	U	0.87	5.00	ug/L
108-88-3	Toluene	0.17	U	0.17	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.14	U	0.14	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	FB01	SDG No.:	O1233
Lab Sample ID:	O1233-12	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
VN076347.D	1		01/20/23 14:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
591-78-6	2-Hexanone	0.76	U	0.76	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.14	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
108-90-7	Chlorobenzene	0.17	U	0.17	1.00	ug/L
100-41-4	Ethyl Benzene	0.17	U	0.17	1.00	ug/L
179601-23-1	m/p-Xylenes	0.33	U	0.33	2.00	ug/L
95-47-6	o-Xylene	0.18	U	0.18	1.00	ug/L
100-42-5	Styrene	0.13	U	0.13	1.00	ug/L
75-25-2	Bromoform	0.16	U	0.16	1.00	ug/L
98-82-8	Isopropylbenzene	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.23	U	0.23	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.42	U	0.42	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.23	U	0.23	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.33	U	0.33	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.1		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		75 - 124	96%	SPK: 50
2037-26-5	Toluene-d8	49.6		86 - 113	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.0		64 - 133	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	370000	8.23			
540-36-3	1,4-Difluorobenzene	596000	9.106			
3114-55-4	Chlorobenzene-d5	524000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	212000	13.794			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	FB01	SDG No.:	O1233
Lab Sample ID:	O1233-12	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
VN076347.D	1		01/20/23 14:49	VN012023

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

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Surrogate Summary

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
O1233-02	B-P34A	1,2-Dichloroethane-d4	50	58.5	117		50	163
		Dibromofluoromethane	50	51.4	103		54	147
		Toluene-d8	50	52.1	104		58	134
		4-Bromofluorobenzene	50	53.8	108		30	143
O1233-03	B-P34B	1,2-Dichloroethane-d4	50	66.4	133		50	163
		Dibromofluoromethane	50	53.5	107		54	147
		Toluene-d8	50	52.7	105		58	134
		4-Bromofluorobenzene	50	56.2	112		30	143
O1233-04	B-P36A	1,2-Dichloroethane-d4	50	49.8	100		50	163
		Dibromofluoromethane	50	47.1	94		54	147
		Toluene-d8	50	51.5	103		58	134
		4-Bromofluorobenzene	50	50.5	101		30	143
O1233-05	B-P36B	1,2-Dichloroethane-d4	50	92.5	185	*	50	163
		Dibromofluoromethane	50	56.1	112		54	147
		Toluene-d8	50	51.5	103		58	134
		4-Bromofluorobenzene	50	60.1	120		30	143
O1233-05RE	B-P36BRE	1,2-Dichloroethane-d4	50	68.1	136		50	163
		Dibromofluoromethane	50	52.3	105		54	147
		Toluene-d8	50	48.9	98		58	134
		4-Bromofluorobenzene	50	45.8	92		30	143
O1233-06	B-P37A	1,2-Dichloroethane-d4	50	50.8	102		50	163
		Dibromofluoromethane	50	48.2	96		54	147
		Toluene-d8	50	51.4	103		58	134
		4-Bromofluorobenzene	50	50.0	100		30	143
O1233-07	B-P37B	1,2-Dichloroethane-d4	50	83.0	166	*	50	163
		Dibromofluoromethane	50	60.1	120		54	147
		Toluene-d8	50	66.9	134		58	134
		4-Bromofluorobenzene	50	48.8	98		30	143
O1233-08	B-P38A	1,2-Dichloroethane-d4	50	90.7	181	*	50	163
		Dibromofluoromethane	50	55.9	112		54	147
		Toluene-d8	50	55.2	110		58	134
		4-Bromofluorobenzene	50	56.9	114		30	143
O1233-08RE	B-P38ARE	1,2-Dichloroethane-d4	50	81.0	162		50	163
		Dibromofluoromethane	50	26.2	52	*	54	147
		Toluene-d8	50	66.0	132		58	134
		4-Bromofluorobenzene	50	43.1	86		30	143
O1233-09	B-P38B	1,2-Dichloroethane-d4	50	74.0	148		50	163
		Dibromofluoromethane	50	54.8	110		54	147
		Toluene-d8	50	54.3	109		58	134
		4-Bromofluorobenzene	50	60.4	121		30	143
O1233-09RE	B-P38BRE	1,2-Dichloroethane-d4	50	59.5	119		50	163
		Dibromofluoromethane	50	48.3	97		54	147
		Toluene-d8	50	56.8	114		58	134
		4-Bromofluorobenzene	50	50.4	101		30	143
O1233-11	B-P38C	1,2-Dichloroethane-d4	50	47.8	96		50	163
		Dibromofluoromethane	50	45.9	92		54	147
		Toluene-d8	50	65.5	131		58	134
		4-Bromofluorobenzene	50	91.1	182	*	30	143
O1233-11DL	B-P38CDL	1,2-Dichloroethane-d4	50	48.6	97		50	163
		Dibromofluoromethane	50	46.9	94		54	147
		Toluene-d8	50	52.4	105		58	134
		4-Bromofluorobenzene	50	56.2	112		30	143

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Surrogate Summary

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
VD0120SBL04	VD0120SBL04	1,2-Dichloroethane-d4	50	57.2	114	50	163
		Dibromofluoromethane	50	50.7	101	54	147
		Toluene-d8	50	52.1	104	58	134
		4-Bromofluorobenzene	50	53.6	107	30	143
VD0120SBS02	VD0120SBS02	1,2-Dichloroethane-d4	50	56.1	112	50	163
		Dibromofluoromethane	50	53.0	106	54	147
		Toluene-d8	50	53.3	107	58	134
		4-Bromofluorobenzene	50	53.5	107	30	143
VD0123SBL01	VD0123SBL01	1,2-Dichloroethane-d4	50	51.9	104	50	163
		Dibromofluoromethane	50	48.5	97	54	147
		Toluene-d8	50	50.8	102	58	134
		4-Bromofluorobenzene	50	50.5	101	30	143
VD0123SBS01	VD0123SBS01	1,2-Dichloroethane-d4	50	54.9	110	50	163
		Dibromofluoromethane	50	53.1	106	54	147
		Toluene-d8	50	53.7	107	58	134
		4-Bromofluorobenzene	50	51.6	103	30	143
VD0123SBSD01	VD0123SBSD01	1,2-Dichloroethane-d4	50	53.7	107	50	163
		Dibromofluoromethane	50	51.7	103	54	147
		Toluene-d8	50	52.9	106	58	134
		4-Bromofluorobenzene	50	51.2	102	30	143
VN0123MBL01	VN0123MBL01	1,2-Dichloroethane-d4	50	49.9	100	50	163
		Dibromofluoromethane	50	49.5	99	54	147
		Toluene-d8	50	48.9	98	58	134
		4-Bromofluorobenzene	50	44.4	89	30	143
VN0123MBS01	VN0123MBS01	1,2-Dichloroethane-d4	50	52.1	104	50	163
		Dibromofluoromethane	50	51.5	103	54	147
		Toluene-d8	50	50.9	102	58	134
		4-Bromofluorobenzene	50	51.3	103	30	143
VY0123SBL01	VY0123SBL01	1,2-Dichloroethane-d4	50	52.7	105	50	163
		Dibromofluoromethane	50	45.4	91	54	147
		Toluene-d8	50	47.0	94	58	134
		4-Bromofluorobenzene	50	41.2	82	30	143
VY0123SBS01	VY0123SBS01	1,2-Dichloroethane-d4	50	49.4	99	50	163
		Dibromofluoromethane	50	46.3	93	54	147
		Toluene-d8	50	48.5	97	58	134
		4-Bromofluorobenzene	50	44.5	89	30	143

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Surrogate Summary

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
O1233-12	FB01	1,2-Dichloroethane-d4	50	49.1	98	74	125
		Dibromofluoromethane	50	48.1	96	75	124
		Toluene-d8	50	49.6	99	86	113
		4-Bromofluorobenzene	50	48.0	96	64	133
VN0120WBL01	VN0120WBL01	1,2-Dichloroethane-d4	50	47.5	95	74	125
		Dibromofluoromethane	50	48.7	97	75	124
		Toluene-d8	50	49.7	99	86	113
		4-Bromofluorobenzene	50	45.5	91	64	133
VN0120WBS01	VN0120WBS01	1,2-Dichloroethane-d4	50	49.0	98	74	125
		Dibromofluoromethane	50	50.3	101	75	124
		Toluene-d8	50	50.7	101	86	113
		4-Bromofluorobenzene	50	50.9	102	64	133
VN0120WBSD0	VN0120WBSD01	1,2-Dichloroethane-d4	50	51.3	103	74	125
		Dibromofluoromethane	50	52.0	104	75	124
		Toluene-d8	50	51.4	103	86	113
		4-Bromofluorobenzene	50	53.4	107	64	133

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VD075150.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VD0120SBS02	Dichlorodifluoromethane	20	25.8	ug/Kg	129			64	136	
	Chloromethane	20	22.6	ug/Kg	113			70	130	
	Vinyl chloride	20	20.1	ug/Kg	101			72	129	
	Bromomethane	20	21.1	ug/Kg	106			58	141	
	Chloroethane	20	20.7	ug/Kg	104			69	130	
	Trichlorofluoromethane	20	21.2	ug/Kg	106			69	134	
	1,1,2-Trichlorotrifluoroethane	20	21.7	ug/Kg	109			81	123	
	1,1-Dichloroethene	20	22.5	ug/Kg	113			79	121	
	Acetone	100	99.8	ug/Kg	100			60	131	
	Carbon disulfide	20	21.8	ug/Kg	109			45	154	
	Methyl tert-butyl Ether	20	21.8	ug/Kg	109			77	129	
	Methyl Acetate	20	22.8	ug/Kg	114			69	149	
	Methylene Chloride	20	20.1	ug/Kg	101			39	175	
	trans-1,2-Dichloroethene	20	21.1	ug/Kg	106			80	123	
	1,1-Dichloroethane	20	21.6	ug/Kg	108			82	123	
	Cyclohexane	20	21.7	ug/Kg	109			76	122	
	2-Butanone	100	110	ug/Kg	110			69	131	
	Carbon Tetrachloride	20	20.0	ug/Kg	100			76	129	
	cis-1,2-Dichloroethene	20	21.6	ug/Kg	108			82	123	
	Bromochloromethane	20	24.1	ug/Kg	121			62	134	
	Chloroform	20	21.5	ug/Kg	108			82	125	
	1,1,1-Trichloroethane	20	20.8	ug/Kg	104			80	126	
	Methylcyclohexane	20	21.0	ug/Kg	105			77	123	
	Benzene	20	21.4	ug/Kg	107			84	121	
	1,2-Dichloroethane	20	20.9	ug/Kg	104			81	126	
	Trichloroethene	20	20.6	ug/Kg	103			83	122	
	1,2-Dichloropropane	20	20.7	ug/Kg	104			83	122	
	Bromodichloromethane	20	20.4	ug/Kg	102			82	123	
	4-Methyl-2-Pentanone	100	110	ug/Kg	110			70	135	
	Toluene	20	20.7	ug/Kg	104			83	122	
	t-1,3-Dichloropropene	20	20.0	ug/Kg	100			78	124	
	cis-1,3-Dichloropropene	20	20.7	ug/Kg	104			81	122	
	1,1,2-Trichloroethane	20	20.9	ug/Kg	104			82	125	
	2-Hexanone	100	110	ug/Kg	110			66	138	
	Dibromochloromethane	20	20.0	ug/Kg	100			79	125	
	1,2-Dibromoethane	20	21.0	ug/Kg	105			80	125	
	Tetrachloroethene	20	19.2	ug/Kg	96			83	125	
	Chlorobenzene	20	20.4	ug/Kg	102			84	122	
	Ethyl Benzene	20	20.4	ug/Kg	102			82	124	
	m/p-Xylenes	40	41.6	ug/Kg	104			83	124	
	o-Xylene	20	20.9	ug/Kg	104			83	123	
	Styrene	20	20.7	ug/Kg	104			82	124	
	Bromoform	20	19.9	ug/Kg	100			75	127	
	Isopropylbenzene	20	20.1	ug/Kg	101			82	124	
	1,1,2,2-Tetrachloroethane	20	21.7	ug/Kg	109			77	127	
	1,3-Dichlorobenzene	20	19.8	ug/Kg	99			83	122	
	1,4-Dichlorobenzene	20	20.8	ug/Kg	104			84	121	
	1,2-Dichlorobenzene	20	20.4	ug/Kg	102			83	124	
	1,2-Dibromo-3-Chloropropane	20	21.7	ug/Kg	109			66	134	

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VD075150.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0120SBS02	1,2,4-Trichlorobenzene	20	18.2	ug/Kg	91			78	127	
	1,2,3-Trichlorobenzene	20	18.4	ug/Kg	92			70	137	

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VD075170.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VD0123SBS01	Dichlorodifluoromethane	20	24.9	ug/Kg	125			64	136	
	Chloromethane	20	22.7	ug/Kg	114			70	130	
	Vinyl chloride	20	20.4	ug/Kg	102			72	129	
	Bromomethane	20	19.9	ug/Kg	100			58	141	
	Chloroethane	20	19.7	ug/Kg	99			69	130	
	Trichlorofluoromethane	20	21.3	ug/Kg	106			69	134	
	1,1,2-Trichlorotrifluoroethane	20	22.1	ug/Kg	111			81	123	
	1,1-Dichloroethene	20	21.7	ug/Kg	109			79	121	
	Acetone	100	100	ug/Kg	100			60	131	
	Carbon disulfide	20	21.8	ug/Kg	109			45	154	
	Methyl tert-butyl Ether	20	21.1	ug/Kg	106			77	129	
	Methyl Acetate	20	22.0	ug/Kg	110			69	149	
	Methylene Chloride	20	16.3	ug/Kg	81			39	175	
	trans-1,2-Dichloroethene	20	21.2	ug/Kg	106			80	123	
	1,1-Dichloroethane	20	21.5	ug/Kg	108			82	123	
	Cyclohexane	20	22.0	ug/Kg	110			76	122	
	2-Butanone	100	100	ug/Kg	100			69	131	
	Carbon Tetrachloride	20	20.3	ug/Kg	102			76	129	
	cis-1,2-Dichloroethene	20	20.8	ug/Kg	104			82	123	
	Bromochloromethane	20	23.2	ug/Kg	116			62	134	
	Chloroform	20	20.9	ug/Kg	104			82	125	
	1,1,1-Trichloroethane	20	21.0	ug/Kg	105			80	126	
	Methylcyclohexane	20	20.8	ug/Kg	104			77	123	
	Benzene	20	21.1	ug/Kg	106			84	121	
	1,2-Dichloroethane	20	21.3	ug/Kg	106			81	126	
	Trichloroethene	20	19.8	ug/Kg	99			83	122	
	1,2-Dichloropropane	20	19.9	ug/Kg	100			83	122	
	Bromodichloromethane	20	20.8	ug/Kg	104			82	123	
	4-Methyl-2-Pentanone	100	110	ug/Kg	110			70	135	
	Toluene	20	20.8	ug/Kg	104			83	122	
	t-1,3-Dichloropropene	20	19.8	ug/Kg	99			78	124	
	cis-1,3-Dichloropropene	20	20.3	ug/Kg	102			81	122	
	1,1,2-Trichloroethane	20	21.7	ug/Kg	109			82	125	
	2-Hexanone	100	110	ug/Kg	110			66	138	
	Dibromochloromethane	20	21.3	ug/Kg	106			79	125	
	1,2-Dibromoethane	20	20.6	ug/Kg	103			80	125	
	Tetrachloroethene	20	19.7	ug/Kg	99			83	125	
	Chlorobenzene	20	20.6	ug/Kg	103			84	122	
	Ethyl Benzene	20	20.9	ug/Kg	104			82	124	
	m/p-Xylenes	40	41.1	ug/Kg	103			83	124	
	o-Xylene	20	20.8	ug/Kg	104			83	123	
	Styrene	20	20.7	ug/Kg	104			82	124	
	Bromoform	20	20.2	ug/Kg	101			75	127	
	Isopropylbenzene	20	19.9	ug/Kg	100			82	124	
	1,1,2,2-Tetrachloroethane	20	20.7	ug/Kg	104			77	127	
	1,3-Dichlorobenzene	20	19.9	ug/Kg	100			83	122	
	1,4-Dichlorobenzene	20	20.1	ug/Kg	101			84	121	
	1,2-Dichlorobenzene	20	19.7	ug/Kg	99			83	124	
	1,2-Dibromo-3-Chloropropane	20	20.7	ug/Kg	104			66	134	

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VD075170.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0123SBS01	1,2,4-Trichlorobenzene	20	18.2	ug/Kg	91			78	127	
	1,2,3-Trichlorobenzene	20	18.1	ug/Kg	91			70	137	

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VD075171.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0123SBSD01	Dichlorodifluoromethane	20	26.4	ug/Kg	132	5		64	136	20
	Chloromethane	20	22.1	ug/Kg	111	3		70	130	20
	Vinyl chloride	20	20.9	ug/Kg	104	2		72	129	20
	Bromomethane	20	20.4	ug/Kg	102	2		58	141	20
	Chloroethane	20	21.5	ug/Kg	108	9		69	130	20
	Trichlorofluoromethane	20	22.5	ug/Kg	113	6		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	22.5	ug/Kg	113	2		81	123	20
	1,1-Dichloroethene	20	22.4	ug/Kg	112	3		79	121	20
	Acetone	100	100	ug/Kg	100	0		60	131	20
	Carbon disulfide	20	22.3	ug/Kg	112	3		45	154	20
	Methyl tert-butyl Ether	20	21.2	ug/Kg	106	0		77	129	20
	Methyl Acetate	20	22.9	ug/Kg	115	4		69	149	20
	Methylene Chloride	20	16.9	ug/Kg	85	5		39	175	20
	trans-1,2-Dichloroethene	20	21.8	ug/Kg	109	3		80	123	20
	1,1-Dichloroethane	20	21.7	ug/Kg	109	1		82	123	20
	Cyclohexane	20	21.6	ug/Kg	108	2		76	122	20
	2-Butanone	100	110	ug/Kg	110	10		69	131	20
	Carbon Tetrachloride	20	20.2	ug/Kg	101	1		76	129	20
	cis-1,2-Dichloroethene	20	21.5	ug/Kg	108	4		82	123	20
	Bromochloromethane	20	24.2	ug/Kg	121	4		62	134	20
	Chloroform	20	21.3	ug/Kg	106	2		82	125	20
	1,1,1-Trichloroethane	20	21.3	ug/Kg	106	1		80	126	20
	Methylcyclohexane	20	21.1	ug/Kg	106	2		77	123	20
	Benzene	20	21.6	ug/Kg	108	2		84	121	20
	1,2-Dichloroethane	20	21.1	ug/Kg	106	0		81	126	20
	Trichloroethene	20	20.0	ug/Kg	100	1		83	122	20
	1,2-Dichloropropane	20	21.3	ug/Kg	106	6		83	122	20
	Bromodichloromethane	20	21.5	ug/Kg	108	4		82	123	20
	4-Methyl-2-Pentanone	100	110	ug/Kg	110	0		70	135	20
	Toluene	20	21.3	ug/Kg	106	2		83	122	20
	t-1,3-Dichloropropene	20	19.7	ug/Kg	99	0		78	124	20
	cis-1,3-Dichloropropene	20	20.4	ug/Kg	102	0		81	122	20
	1,1,2-Trichloroethane	20	21.3	ug/Kg	106	3		82	125	20
	2-Hexanone	100	110	ug/Kg	110	0		66	138	20
	Dibromochloromethane	20	20.9	ug/Kg	104	2		79	125	20
	1,2-Dibromoethane	20	21.2	ug/Kg	106	3		80	125	20
	Tetrachloroethene	20	20.1	ug/Kg	101	2		83	125	20
	Chlorobenzene	20	20.5	ug/Kg	103	0		84	122	20
	Ethyl Benzene	20	21.0	ug/Kg	105	1		82	124	20
	m/p-Xylenes	40	42.9	ug/Kg	107	4		83	124	20
	o-Xylene	20	20.4	ug/Kg	102	2		83	123	20
	Styrene	20	21.5	ug/Kg	108	4		82	124	20
	Bromoform	20	20.2	ug/Kg	101	0		75	127	20
	Isopropylbenzene	20	20.1	ug/Kg	101	1		82	124	20
	1,1,2,2-Tetrachloroethane	20	21.6	ug/Kg	108	4		77	127	20
	1,3-Dichlorobenzene	20	20.2	ug/Kg	101	1		83	122	20
	1,4-Dichlorobenzene	20	20.6	ug/Kg	103	2		84	121	20
	1,2-Dichlorobenzene	20	20.6	ug/Kg	103	4		83	124	20
	1,2-Dibromo-3-Chloropropane	20	22.7	ug/Kg	114	9		66	134	20

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VD075171.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0123SBSD01	1,2,4-Trichlorobenzene	20	19.0	ug/Kg	95	4		78	127	20
	1,2,3-Trichlorobenzene	20	18.8	ug/Kg	94	3		70	137	20

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260-Low **Datafile :** VN076340.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0120WBS01	Dichlorodifluoromethane	20	17.4	ug/L	87			69	116	
	Chloromethane	20	16.6	ug/L	83			65	116	
	Vinyl chloride	20	17.5	ug/L	88			65	117	
	Bromomethane	20	17.6	ug/L	88			42	173	
	Chloroethane	20	18.8	ug/L	94			44	165	
	Trichlorofluoromethane	20	16.9	ug/L	85			73	115	
	1,1,2-Trichlorotrifluoroethane	20	17.2	ug/L	86			80	112	
	1,1-Dichloroethene	20	16.8	ug/L	84			74	110	
	Acetone	100	85.8	ug/L	86			60	125	
	Carbon disulfide	20	15.2	ug/L	76			64	112	
	Methyl tert-butyl Ether	20	17.6	ug/L	88			78	114	
	Methyl Acetate	20	16.4	ug/L	82			67	125	
	Methylene Chloride	20	18.5	ug/L	93			72	114	
	trans-1,2-Dichloroethene	20	16.2	ug/L	81			75	108	
	1,1-Dichloroethane	20	16.8	ug/L	84			78	112	
	Cyclohexane	20	16.2	ug/L	81			75	110	
	2-Butanone	100	83.8	ug/L	84			65	122	
	Carbon Tetrachloride	20	17.2	ug/L	86			77	113	
	cis-1,2-Dichloroethene	20	17.3	ug/L	86			77	110	
	Bromochloromethane	20	18.8	ug/L	94			70	124	
	Chloroform	20	17.0	ug/L	85			79	113	
	1,1,1-Trichloroethane	20	17.5	ug/L	88			80	108	
	Methylcyclohexane	20	17.6	ug/L	88			72	115	
	Benzene	20	17.2	ug/L	86			82	109	
	1,2-Dichloroethane	20	17.3	ug/L	86			80	115	
	Trichloroethene	20	16.7	ug/L	84			77	113	
	1,2-Dichloropropane	20	17.0	ug/L	85			83	111	
	Bromodichloromethane	20	17.6	ug/L	88			83	110	
	4-Methyl-2-Pentanone	100	88.6	ug/L	89			74	118	
	Toluene	20	16.7	ug/L	84			82	110	
	t-1,3-Dichloropropene	20	17.9	ug/L	90			79	110	
	cis-1,3-Dichloropropene	20	17.3	ug/L	86			82	110	
	1,1,2-Trichloroethane	20	17.5	ug/L	88			83	112	
	2-Hexanone	100	88.3	ug/L	88			73	117	
	Dibromochloromethane	20	18.0	ug/L	90			82	110	
	1,2-Dibromoethane	20	17.8	ug/L	89			81	110	
	Tetrachloroethene	20	17.6	ug/L	88			67	123	
	Chlorobenzene	20	17.8	ug/L	89			82	109	
	Ethyl Benzene	20	18.3	ug/L	92			83	109	
	m/p-Xylenes	40	36.8	ug/L	92			82	110	
	o-Xylene	20	18.5	ug/L	93			83	109	
	Styrene	20	18.3	ug/L	92			80	111	
	Bromoform	20	18.1	ug/L	91			79	109	
	Isopropylbenzene	20	19.4	ug/L	97			83	112	
	1,1,2,2-Tetrachloroethane	20	18.1	ug/L	91			76	118	
	1,3-Dichlorobenzene	20	17.6	ug/L	88			82	108	
	1,4-Dichlorobenzene	20	18.0	ug/L	90			82	107	
	1,2-Dichlorobenzene	20	17.4	ug/L	87			82	109	
	1,2-Dibromo-3-Chloropropane	20	17.9	ug/L	90			68	112	

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260-Low **Datafile :** VN076340.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0120WBS01	1,2,4-Trichlorobenzene	20	16.7	ug/L	84			74	114	
	1,2,3-Trichlorobenzene	20	17.1	ug/L	86			77	113	

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260-Low **Datafile :** VN076341.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0120WBSD01	Dichlorodifluoromethane	20	18.1	ug/L	91	4		69	116	20
	Chloromethane	20	17.3	ug/L	86	4		65	116	20
	Vinyl chloride	20	18.3	ug/L	92	4		65	117	20
	Bromomethane	20	18.7	ug/L	94	7		42	173	20
	Chloroethane	20	18.9	ug/L	95	1		44	165	20
	Trichlorofluoromethane	20	18.0	ug/L	90	6		73	115	20
	1,1,2-Trichlorotrifluoroethane	20	18.7	ug/L	94	9		80	112	20
	1,1-Dichloroethene	20	17.4	ug/L	87	4		74	110	20
	Acetone	100	91.0	ug/L	91	6		60	125	20
	Carbon disulfide	20	16.3	ug/L	81	6		64	112	20
	Methyl tert-butyl Ether	20	19.9	ug/L	100	13		78	114	20
	Methyl Acetate	20	18.5	ug/L	93	13		67	125	20
	Methylene Chloride	20	20.5	ug/L	103	10		72	114	20
	trans-1,2-Dichloroethene	20	18.0	ug/L	90	11		75	108	20
	1,1-Dichloroethane	20	18.4	ug/L	92	9		78	112	20
	Cyclohexane	20	17.4	ug/L	87	7		75	110	20
	2-Butanone	100	92.2	ug/L	92	9		65	122	20
	Carbon Tetrachloride	20	18.7	ug/L	94	9		77	113	20
	cis-1,2-Dichloroethene	20	18.6	ug/L	93	8		77	110	20
	Bromochloromethane	20	20.4	ug/L	102	8		70	124	20
	Chloroform	20	18.8	ug/L	94	10		79	113	20
	1,1,1-Trichloroethane	20	18.5	ug/L	93	6		80	108	20
	Methylcyclohexane	20	19.1	ug/L	96	9		72	115	20
	Benzene	20	18.8	ug/L	94	9		82	109	20
	1,2-Dichloroethane	20	19.5	ug/L	98	13		80	115	20
	Trichloroethene	20	18.0	ug/L	90	7		77	113	20
	1,2-Dichloropropane	20	19.2	ug/L	96	12		83	111	20
	Bromodichloromethane	20	19.5	ug/L	98	11		83	110	20
	4-Methyl-2-Pentanone	100	98.9	ug/L	99	11		74	118	20
	Toluene	20	18.5	ug/L	93	10		82	110	20
	t-1,3-Dichloropropene	20	19.8	ug/L	99	10		79	110	20
	cis-1,3-Dichloropropene	20	19.4	ug/L	97	12		82	110	20
	1,1,2-Trichloroethane	20	19.5	ug/L	98	11		83	112	20
	2-Hexanone	100	98.1	ug/L	98	11		73	117	20
	Dibromochloromethane	20	20.2	ug/L	101	12		82	110	20
	1,2-Dibromoethane	20	19.4	ug/L	97	9		81	110	20
	Tetrachloroethene	20	18.4	ug/L	92	4		67	123	20
	Chlorobenzene	20	18.8	ug/L	94	5		82	109	20
	Ethyl Benzene	20	19.1	ug/L	96	4		83	109	20
	m/p-Xylenes	40	38.2	ug/L	96	4		82	110	20
	o-Xylene	20	19.2	ug/L	96	3		83	109	20
	Styrene	20	19.4	ug/L	97	5		80	111	20
	Bromoform	20	19.8	ug/L	99	8		79	109	20
	Isopropylbenzene	20	19.9	ug/L	100	3		83	112	20
	1,1,2,2-Tetrachloroethane	20	19.3	ug/L	97	6		76	118	20
	1,3-Dichlorobenzene	20	18.1	ug/L	91	3		82	108	20
	1,4-Dichlorobenzene	20	18.8	ug/L	94	4		82	107	20
	1,2-Dichlorobenzene	20	18.1	ug/L	91	4		82	109	20
	1,2-Dibromo-3-Chloropropane	20	19.9	ug/L	100	11		68	112	20

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260-Low **Datafile :** VN076341.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0120WBSD01	1,2,4-Trichlorobenzene	20	18.4	ug/L	92	9		74	114	20
	1,2,3-Trichlorobenzene	20	18.5	ug/L	93	8		77	113	20

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VN076358.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0123MBS01	Dichlorodifluoromethane	2000	1800	ug/Kg	90			64	136	
	Chloromethane	2000	1800	ug/Kg	90			70	130	
	Vinyl chloride	2000	2000	ug/Kg	100			72	129	
	Bromomethane	2000	1900	ug/Kg	95			58	141	
	Chloroethane	2000	2000	ug/Kg	100			69	130	
	Trichlorofluoromethane	2000	1700	ug/Kg	85			69	134	
	1,1,2-Trichlorotrifluoroethane	2000	1800	ug/Kg	90			81	123	
	1,1-Dichloroethene	2000	1700	ug/Kg	85			79	121	
	Acetone	10000	10700	ug/Kg	107			60	131	
	Carbon disulfide	2000	1700	ug/Kg	85			45	154	
	Methyl tert-butyl Ether	2000	1800	ug/Kg	90			77	129	
	Methyl Acetate	2000	1800	ug/Kg	90			69	149	
	Methylene Chloride	2000	1700	ug/Kg	85			39	175	
	trans-1,2-Dichloroethene	2000	1700	ug/Kg	85			80	123	
	1,1-Dichloroethane	2000	1800	ug/Kg	90			82	123	
	Cyclohexane	2000	1700	ug/Kg	85			76	122	
	2-Butanone	10000	9300	ug/Kg	93			69	131	
	Carbon Tetrachloride	2000	1900	ug/Kg	95			76	129	
	cis-1,2-Dichloroethene	2000	1700	ug/Kg	85			82	123	
	Bromochloromethane	2000	2100	ug/Kg	105			62	134	
	Chloroform	2000	1800	ug/Kg	90			82	125	
	1,1,1-Trichloroethane	2000	1800	ug/Kg	90			80	126	
	Methylcyclohexane	2000	1700	ug/Kg	85			77	123	
	Benzene	2000	1800	ug/Kg	90			84	121	
	1,2-Dichloroethane	2000	1800	ug/Kg	90			81	126	
	Trichloroethene	2000	1700	ug/Kg	85			83	122	
	1,2-Dichloropropane	2000	1800	ug/Kg	90			83	122	
	Bromodichloromethane	2000	1900	ug/Kg	95			82	123	
	4-Methyl-2-Pentanone	10000	9500	ug/Kg	95			70	135	
	Toluene	2000	1700	ug/Kg	85			83	122	
	t-1,3-Dichloropropene	2000	1900	ug/Kg	95			78	124	
	cis-1,3-Dichloropropene	2000	1900	ug/Kg	95			81	122	
	1,1,2-Trichloroethane	2000	1800	ug/Kg	90			82	125	
	2-Hexanone	10000	9400	ug/Kg	94			66	138	
	Dibromochloromethane	2000	2000	ug/Kg	100			79	125	
	1,2-Dibromoethane	2000	1800	ug/Kg	90			80	125	
	Tetrachloroethene	2000	1700	ug/Kg	85			83	125	
	Chlorobenzene	2000	1800	ug/Kg	90			84	122	
	Ethyl Benzene	2000	1900	ug/Kg	95			82	124	
	m/p-Xylenes	4000	3700	ug/Kg	93			83	124	
	o-Xylene	2000	1800	ug/Kg	90			83	123	
	Styrene	2000	1900	ug/Kg	95			82	124	
	Bromoform	2000	2100	ug/Kg	105			75	127	
	Isopropylbenzene	2000	2000	ug/Kg	100			82	124	
	1,1,2,2-Tetrachloroethane	2000	1900	ug/Kg	95			77	127	
	1,3-Dichlorobenzene	2000	1800	ug/Kg	90			83	122	
	1,4-Dichlorobenzene	2000	1800	ug/Kg	90			84	121	
	1,2-Dichlorobenzene	2000	1700	ug/Kg	85			83	124	
	1,2-Dibromo-3-Chloropropane	2000	1800	ug/Kg	90			66	134	

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VN076358.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0123MBS01	1,2,4-Trichlorobenzene	2000	1700	ug/Kg	85			78	127	
	1,2,3-Trichlorobenzene	2000	1700	ug/Kg	85			70	137	

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VY012309.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0123SBS01	Dichlorodifluoromethane	20	21.2	ug/Kg	106			64	136	
	Chloromethane	20	19.7	ug/Kg	99			70	130	
	Vinyl chloride	20	20.0	ug/Kg	100			72	129	
	Bromomethane	20	21.0	ug/Kg	105			58	141	
	Chloroethane	20	20.8	ug/Kg	104			69	130	
	Trichlorofluoromethane	20	21.2	ug/Kg	106			69	134	
	1,1,2-Trichlorotrifluoroethane	20	20.8	ug/Kg	104			81	123	
	1,1-Dichloroethene	20	20.6	ug/Kg	103			79	121	
	Acetone	100	87.9	ug/Kg	88			60	131	
	Carbon disulfide	20	20.2	ug/Kg	101			45	154	
	Methyl tert-butyl Ether	20	19.4	ug/Kg	97			77	129	
	Methyl Acetate	20	18.3	ug/Kg	92			69	149	
	Methylene Chloride	20	15.2	ug/Kg	76			39	175	
	trans-1,2-Dichloroethene	20	20.1	ug/Kg	101			80	123	
	1,1-Dichloroethane	20	20.5	ug/Kg	103			82	123	
	Cyclohexane	20	20.2	ug/Kg	101			76	122	
	2-Butanone	100	92.3	ug/Kg	92			69	131	
	Carbon Tetrachloride	20	20.7	ug/Kg	104			76	129	
	cis-1,2-Dichloroethene	20	20.5	ug/Kg	103			82	123	
	Bromochloromethane	20	19.2	ug/Kg	96			62	134	
	Chloroform	20	20.4	ug/Kg	102			82	125	
	1,1,1-Trichloroethane	20	20.7	ug/Kg	104			80	126	
	Methylcyclohexane	20	20.8	ug/Kg	104			77	123	
	Benzene	20	20.5	ug/Kg	103			84	121	
	1,2-Dichloroethane	20	20.2	ug/Kg	101			81	126	
	Trichloroethene	20	20.1	ug/Kg	101			83	122	
	1,2-Dichloropropane	20	20.3	ug/Kg	102			83	122	
	Bromodichloromethane	20	20.3	ug/Kg	102			82	123	
	4-Methyl-2-Pentanone	100	93.5	ug/Kg	94			70	135	
	Toluene	20	20.4	ug/Kg	102			83	122	
	t-1,3-Dichloropropene	20	19.6	ug/Kg	98			78	124	
	cis-1,3-Dichloropropene	20	20.1	ug/Kg	101			81	122	
	1,1,2-Trichloroethane	20	19.6	ug/Kg	98			82	125	
	2-Hexanone	100	92.0	ug/Kg	92			66	138	
	Dibromochloromethane	20	19.7	ug/Kg	99			79	125	
	1,2-Dibromoethane	20	19.3	ug/Kg	97			80	125	
	Tetrachloroethene	20	21.0	ug/Kg	105			83	125	
	Chlorobenzene	20	20.2	ug/Kg	101			84	122	
	Ethyl Benzene	20	20.3	ug/Kg	102			82	124	
	m/p-Xylenes	40	41.2	ug/Kg	103			83	124	
	o-Xylene	20	20.0	ug/Kg	100			83	123	
	Styrene	20	20.4	ug/Kg	102			82	124	
	Bromoform	20	19.1	ug/Kg	96			75	127	
	Isopropylbenzene	20	20.6	ug/Kg	103			82	124	
	1,1,2,2-Tetrachloroethane	20	19.3	ug/Kg	97			77	127	
	1,3-Dichlorobenzene	20	19.8	ug/Kg	99			83	122	
	1,4-Dichlorobenzene	20	19.5	ug/Kg	98			84	121	
	1,2-Dichlorobenzene	20	19.4	ug/Kg	97			83	124	
	1,2-Dibromo-3-Chloropropane	20	18.7	ug/Kg	94			66	134	

CHEMTECH

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

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D **Datafile :** VY012309.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VY0123SBS01	1,2,4-Trichlorobenzene	20	17.9	ug/Kg	90			78	127	
	1,2,3-Trichlorobenzene	20	17.2	ug/Kg	86			70	137	

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0120SBL04

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VD075147.D Lab Sample ID: VD0120SBL04

Date Analyzed: 01/20/2023 Time Analyzed: 12:23

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0120SBS02	VD0120SBS02	VD075150.D	01/20/2023
B-P36B	O1233-05	VD075158.D	01/20/2023
B-P38A	O1233-08	VD075161.D	01/20/2023
B-P38B	O1233-09	VD075162.D	01/20/2023

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0123SBL01

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VD075169.D Lab Sample ID: VD0123SBL01

Date Analyzed: 01/23/2023 Time Analyzed: 12:14

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0123SBS01	VD0123SBS01	VD075170.D	01/23/2023
VD0123SBSD01	VD0123SBSD01	VD075171.D	01/23/2023
B-P34A	O1233-02	VD075172.D	01/23/2023
B-P34B	O1233-03	VD075173.D	01/23/2023
B-P36A	O1233-04	VD075174.D	01/23/2023
B-P36BRE	O1233-05RE	VD075175.D	01/23/2023
B-P37A	O1233-06	VD075176.D	01/23/2023
B-P38BRE	O1233-09RE	VD075178.D	01/23/2023

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0123MBL01

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VN076356.D Lab Sample ID: VN0123MBL01

Date Analyzed: 01/23/2023 Time Analyzed: 10:51

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
VN0123MBS01	VN0123MBS01	VN076358.D	01/23/2023
B-P38C	O1233-11	VN076364.D	01/23/2023
B-P38CDL	O1233-11DL	VN076367.D	01/23/2023

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0123SBL01

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VY012308.D Lab Sample ID: VY0123SBL01

Date Analyzed: 01/23/2023 Time Analyzed: 13:04

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
VY0123SBS01	VY0123SBS01	VY012309.D	01/23/2023
B-P37B	O1233-07	VY012315.D	01/23/2023
B-P38ARE	O1233-08RE	VY012316.D	01/23/2023

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0120WBL01

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VN076339.D Lab Sample ID: VN0120WBL01

Date Analyzed: 01/20/2023 Time Analyzed: 11:25

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
VN0120WBS01	VN0120WBS01	VN076340.D	01/20/2023
VN0120WBSD01	VN0120WBSD01	VN076341.D	01/20/2023
FB01	O1233-12	VN076347.D	01/20/2023

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VD075123.D BFB Injection Date: 01/18/2023

Instrument ID: MSVOA_D BFB Injection Time: 09:22

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	52.1
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	1 (1.3) 1
174	50.0 - 100.0% of mass 95	80.6
175	5.0 - 9.0% of mass 174	6.5 (8.1) 1
176	95.0 - 101.0% of mass 174	77.5 (96.1) 1
177	5.0 - 9.0% of mass 176	5.4 (7) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VD075124.D	01/18/2023	10:25
VSTDICC010	VSTDICC010	VD075125.D	01/18/2023	11:20
VSTDICC020	VSTDICC020	VD075126.D	01/18/2023	11:48
VSTDICCC050	VSTDICCC050	VD075127.D	01/18/2023	12:15
VSTDICC100	VSTDICC100	VD075128.D	01/18/2023	12:42
VSTDICC150	VSTDICC150	VD075129.D	01/18/2023	13:10

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VD075145.D BFB Injection Date: 01/20/2023

Instrument ID: MSVOA_D BFB Injection Time: 10:40

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.1
75	30.0 - 60.0% of mass 95	52.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1.2 (1.6) 1
174	50.0 - 100.0% of mass 95	74
175	5.0 - 9.0% of mass 174	5.8 (7.9) 1
176	95.0 - 101.0% of mass 174	72.5 (98) 1
177	5.0 - 9.0% of mass 176	4.6 (6.4) 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	VD075146.D	01/20/2023	11:13
VD0120SBL04	VD0120SBL04	VD075147.D	01/20/2023	12:23
VD0120SBS02	VD0120SBS02	VD075150.D	01/20/2023	13:45
B-P36B	O1233-05	VD075158.D	01/20/2023	17:26
B-P38A	O1233-08	VD075161.D	01/20/2023	18:49
B-P38B	O1233-09	VD075162.D	01/20/2023	19:17

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VD075167.D BFB Injection Date: 01/23/2023

Instrument ID: MSVOA_D BFB Injection Time: 09:38

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.9
75	30.0 - 60.0% of mass 95	53.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.2 (1.5) 1
174	50.0 - 100.0% of mass 95	77.3
175	5.0 - 9.0% of mass 174	5.8 (7.5) 1
176	95.0 - 101.0% of mass 174	74.3 (96.1) 1
177	5.0 - 9.0% of mass 176	4.5 (6.1) 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	VD075168.D	01/23/2023	10:15
VD0123SBL01	VD0123SBL01	VD075169.D	01/23/2023	12:14
VD0123SBS01	VD0123SBS01	VD075170.D	01/23/2023	12:41
VD0123SBSD01	VD0123SBSD01	VD075171.D	01/23/2023	13:08
B-P34A	O1233-02	VD075172.D	01/23/2023	13:36
B-P34B	O1233-03	VD075173.D	01/23/2023	14:04
B-P36A	O1233-04	VD075174.D	01/23/2023	14:32
B-P36BRE	O1233-05RE	VD075175.D	01/23/2023	15:00
B-P37A	O1233-06	VD075176.D	01/23/2023	15:27
B-P38BRE	O1233-09RE	VD075178.D	01/23/2023	16:23

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VN076259.D BFB Injection Date: 01/16/2023

Instrument ID: MSVOA_N BFB Injection Time: 09:57

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	18.7
75	30.0 - 60.0% of mass 95	53.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	1.2 (1.4) 1
174	50.0 - 100.0% of mass 95	88.5
175	5.0 - 9.0% of mass 174	6 (6.7) 1
176	95.0 - 101.0% of mass 174	86.5 (97.7) 1
177	5.0 - 9.0% of mass 176	5.1 (5.9) 2

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

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VN076261.D	01/16/2023	10:54
VSTDICC010	VSTDICC010	VN076262.D	01/16/2023	11:18
VSTDICC020	VSTDICC020	VN076263.D	01/16/2023	11:42
VSTDICCC050	VSTDICCC050	VN076264.D	01/16/2023	12:06
VSTDICC075	VSTDICC075	VN076265.D	01/16/2023	12:30
VSTDICC001	VSTDICC001	VN076267.D	01/16/2023	13:17

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VN076336.D BFB Injection Date: 01/20/2023

Instrument ID: MSVOA_N BFB Injection Time: 09:54

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	18.9
75	30.0 - 60.0% of mass 95	51.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	1.1 (1.3) 1
174	50.0 - 100.0% of mass 95	87.5
175	5.0 - 9.0% of mass 174	6.6 (7.5) 1
176	95.0 - 101.0% of mass 174	84.4 (96.5) 1
177	5.0 - 9.0% of mass 176	5.8 (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
VSTDCCC050	VSTDCCC050	VN076337.D	01/20/2023	10:27
VN0120WBL01	VN0120WBL01	VN076339.D	01/20/2023	11:25
VN0120WBS01	VN0120WBS01	VN076340.D	01/20/2023	11:49
VN0120WBSD01	VN0120WBSD01	VN076341.D	01/20/2023	12:25
FB01	O1233-12	VN076347.D	01/20/2023	14:49

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VN076354.D BFB Injection Date: 01/23/2023

Instrument ID: MSVOA_N BFB Injection Time: 09:44

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	18.8
75	30.0 - 60.0% of mass 95	52.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1 (1.1) 1
174	50.0 - 100.0% of mass 95	86.3
175	5.0 - 9.0% of mass 174	6.5 (7.6) 1
176	95.0 - 101.0% of mass 174	84.7 (98.1) 1
177	5.0 - 9.0% of mass 176	5.5 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN076355.D	01/23/2023	10:17
VN0123MBL01	VN0123MBL01	VN076356.D	01/23/2023	10:51
VN0123MBS01	VN0123MBS01	VN076358.D	01/23/2023	11:39
B-P38C	O1233-11	VN076364.D	01/23/2023	14:12
B-P38CDL	O1233-11DL	VN076367.D	01/23/2023	15:25

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VY012193.D BFB Injection Date: 01/16/2023

Instrument ID: MSVOA_Y BFB Injection Time: 09:00

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	17.8
75	30.0 - 60.0% of mass 95	54.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1 (1.1) 1
174	50.0 - 100.0% of mass 95	88.4
175	5.0 - 9.0% of mass 174	6.7 (7.6) 1
176	95.0 - 101.0% of mass 174	85.2 (96.4) 1
177	5.0 - 9.0% of mass 176	5.9 (6.9) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VY012194.D	01/16/2023	12:17
VSTDICC010	VSTDICC010	VY012195.D	01/16/2023	13:03
VSTDICC020	VSTDICC020	VY012196.D	01/16/2023	13:26
VSTDICCC050	VSTDICCC050	VY012197.D	01/16/2023	13:48
VSTDICC100	VSTDICC100	VY012198.D	01/16/2023	14:11
VSTDICC150	VSTDICC150	VY012199.D	01/16/2023	14:34

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VY012306.D BFB Injection Date: 01/23/2023

Instrument ID: MSVOA_Y BFB Injection Time: 10:03

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	54.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1 (1.1) 1
174	50.0 - 100.0% of mass 95	90.6
175	5.0 - 9.0% of mass 174	6.3 (7) 1
176	95.0 - 101.0% of mass 174	87.1 (96.1) 1
177	5.0 - 9.0% of mass 176	5.8 (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	VY012307.D	01/23/2023	12:09
VY0123SBL01	VY0123SBL01	VY012308.D	01/23/2023	13:04
VY0123SBS01	VY0123SBS01	VY012309.D	01/23/2023	13:27
B-P37B	O1233-07	VY012315.D	01/23/2023	15:48
B-P38ARE	O1233-08RE	VY012316.D	01/23/2023	16:11

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VD075146.D Date Analyzed: 01/20/2023

Instrument ID: MSVOA_D Time Analyzed: 11:13

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #		RT #	IS2 AREA #		RT #	IS3 AREA #		RT #
12 HOUR STD	87549		7.88	150535		8.78	130836		11.59
UPPER LIMIT	175098		8.375	301070		9.281	261672		12.087
LOWER LIMIT	43774.5		7.375	75267.5		8.281	65418		11.087
EPA SAMPLE NO.									
B-P36B	4925	*	7.88	11060	*	8.78	10688	*	11.59
B-P38A	3464	*	7.88	6979	*	8.78	6961	*	11.58
B-P38B	41902	*	7.88	88407		8.78	88309		11.59
VD0120SBL04	86545		7.88	180550		8.78	168873		11.58
VD0120SBS02	78332		7.88	142964		8.78	128592		11.59

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

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

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VD075146.D Date Analyzed: 01/20/2023

Instrument ID: MSVOA_D Time Analyzed: 11:13

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #		RT #				
12 HOUR STD	59366		13.522				
UPPER LIMIT	118732		14.022				
LOWER LIMIT	29683		13.022				
EPA SAMPLE NO.							
B-P36B	5310	*	13.52				
B-P38A	2980	*	13.52				
B-P38B	40736		13.52				
VD0120SBL04	72499		13.52				
VD0120SBS02	58018		13.52				

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.**

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VD075168.D Date Analyzed: 01/23/2023

Instrument ID: MSVOA_D Time Analyzed: 10:15

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #		RT #	IS2 AREA #		RT #	IS3 AREA #		RT #
12 HOUR STD	83058		7.88	142829		8.78	124569		11.59
UPPER LIMIT	166116		8.375	285658		9.281	249138		12.087
LOWER LIMIT	41529		7.375	71414.5		8.281	62284.5		11.087
EPA SAMPLE NO.									
B-P34A	67921		7.88	129748		8.78	124838		11.59
B-P34B	49085		7.88	95032		8.78	93578		11.59
B-P36A	87972		7.88	171041		8.78	157598		11.59
B-P36BRE	2289	*	7.88	4728	*	8.78	4222	*	11.58
B-P37A	85119		7.88	168462		8.78	154125		11.59
B-P38BRE	1300	*	7.88	2143	*	8.78	1966	*	11.59
VD0123SBL01	95373		7.88	184136		8.78	168096		11.59
VD0123SBS01	75965		7.88	134615		8.78	120882		11.59
VD0123SBSD01	72362		7.88	130215		8.78	115554		11.59

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

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

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VD075168.D Date Analyzed: 01/23/2023

Instrument ID: MSVOA_D Time Analyzed: 10:15

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #		RT #				
12 HOUR STD	56972		13.522				
UPPER LIMIT	113944		14.022				
LOWER LIMIT	28486		13.022				
EPA SAMPLE NO.							
B-P34A	54879		13.52				
B-P34B	41757		13.52				
B-P36A	64243		13.52				
B-P36BRE	1552	*	13.52				
B-P37A	63432		13.52				
B-P38BRE	699	*	13.53				
VD0123SBL01	71751		13.52				
VD0123SBS01	55819		13.52				
VD0123SBSD01	53241		13.52				

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.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VN076337.D Date Analyzed: 01/20/2023

Instrument ID: MSVOA_N Time Analyzed: 10:27

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	383049	8.23	610968	9.11	549444	11.87
UPPER LIMIT	766098	8.73	1221940	9.606	1098890	12.365
LOWER LIMIT	191525	7.73	305484	8.606	274722	11.365
EPA SAMPLE NO.						
FB01	370105	8.23	595933	9.11	523917	11.87
VN0120WBL01	490775	8.23	773684	9.11	657515	11.87
VN0120WBS01	434458	8.23	686884	9.11	590812	11.87
VN0120WBSD01	359856	8.23	567895	9.11	510094	11.87

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

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

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VN076337.D Date Analyzed: 01/20/2023

Instrument ID: MSVOA_N Time Analyzed: 10:27

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

	IS4 AREA #	RT #				
12 HOUR STD	272155	13.794				
UPPER LIMIT	544310	14.294				
LOWER LIMIT	136078	13.294				
EPA SAMPLE NO.						
FB01	212240	13.79				
VN0120WBL01	251353	13.79				
VN0120WBS01	268276	13.79				
VN0120WBSD01	238179	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.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VN076355.D Date Analyzed: 01/23/2023

Instrument ID: MSVOA_N Time Analyzed: 10:17

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	360494	8.23	576114	9.11	518968	11.87
UPPER LIMIT	720988	8.73	1152230	9.606	1037940	12.37
LOWER LIMIT	180247	7.73	288057	8.606	259484	11.37
EPA SAMPLE NO.						
B-P38C	380260	8.22	594043	9.10	544762	11.87
B-P38CDL	384506	8.23	612820	9.11	549267	11.87
VN0123MBL01	303559	8.23	491398	9.11	403787	11.87
VN0123MBS01	381993	8.23	609908	9.11	527333	11.87

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

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

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab File ID: VN076355.D Date Analyzed: 01/23/2023

Instrument ID: MSVOA_N Time Analyzed: 10:17

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

	IS4 AREA #	RT #				
12 HOUR STD	248688	13.794				
UPPER LIMIT	497376	14.294				
LOWER LIMIT	124344	13.294				
EPA SAMPLE NO.						
B-P38C	318779	13.79				
B-P38CDL	255428	13.79				
VN0123MBL01	158993	13.79				
VN0123MBS01	238215	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.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VY012307.D Date Analyzed: 01/23/2023

Instrument ID: MSVOA_Y Time Analyzed: 12:09

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	179464		7.79	268117		8.69	243165		11.49
UPPER LIMIT	358928		8.289	536234		9.191	486330		11.99
LOWER LIMIT	89732		7.289	134059		8.191	121583		10.99
EPA SAMPLE NO.									
B-P37B	35937	*	7.79	57297	*	8.69	55952	*	11.49
B-P38ARE	4898	*	7.80	8005	*	8.69	7433	*	11.50
VY0123SBL01	162197		7.79	255207		8.69	227538		11.49
VY0123SBS01	173816		7.79	263834		8.69	239765		11.49

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

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

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233

Lab File ID: VY012307.D Date Analyzed: 01/23/2023

Instrument ID: MSVOA_Y Time Analyzed: 12:09

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

	IS4 AREA #		RT #				
12 HOUR STD	123436		13.428				
UPPER LIMIT	246872		13.928				
LOWER LIMIT	61718		12.928				
EPA SAMPLE NO.							
B-P37B	24351	*	13.43				
B-P38ARE	2570	*	13.43				
VY0123SBL01	110055		13.43				
VY0123SBS01	122385		13.43				

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.

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A
B
C
D
E
F
G

QC SAMPLE DATA

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBL04	SDG No.:	O1233
Lab Sample ID:	VD0120SBL04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075147.D	1		01/20/23 12:23	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.86	U	0.86	5.00	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.91	U	0.91	5.00	ug/Kg
74-83-9	Bromomethane	1.20	U	1.20	5.00	ug/Kg
75-00-3	Chloroethane	0.89	U	0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	0.97	U	0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.72	U	0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	0.86	U	0.86	5.00	ug/Kg
67-64-1	Acetone	12.2	U	12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	0.75	U	0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.93	U	0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	1.30	U	1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	6.00	U	6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.70	U	0.70	5.00	ug/Kg
110-82-7	Cyclohexane	0.84	U	0.84	5.00	ug/Kg
78-93-3	2-Butanone	7.30	U	7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.79	U	0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	0.81	U	0.81	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.75	U	0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	0.80	U	0.80	5.00	ug/Kg
71-43-2	Benzene	0.66	U	0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.84	U	0.84	5.00	ug/Kg
79-01-6	Trichloroethene	0.73	U	0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.70	U	0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.60	U	4.60	25.0	ug/Kg
108-88-3	Toluene	0.63	U	0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.74	U	0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.71	U	0.71	5.00	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBL04	SDG No.:	O1233
Lab Sample ID:	VD0120SBL04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075147.D	1		01/20/23 12:23	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.86	U	0.86	5.00	ug/Kg
591-78-6	2-Hexanone	4.70	U	4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.75	U	0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.75	U	0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.76	U	0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	0.65	U	0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.70	U	0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.50	U	1.50	10.0	ug/Kg
95-47-6	o-Xylene	0.79	U	0.79	5.00	ug/Kg
100-42-5	Styrene	0.79	U	0.79	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	0.72	U	0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.63	U	0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.64	U	0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.20	U	1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.94	U	0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.00	U	1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.2		50 - 163	114%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		54 - 147	101%	SPK: 50
2037-26-5	Toluene-d8	52.1		58 - 134	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.6		30 - 143	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	86500	7.875			
540-36-3	1,4-Difluorobenzene	181000	8.781			
3114-55-4	Chlorobenzene-d5	169000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	72500	13.522			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBL04	SDG No.:	O1233
Lab Sample ID:	VD0120SBL04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075147.D	1		01/20/23 12:23	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBL01	SDG No.:	O1233
Lab Sample ID:	VD0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075169.D	1		01/23/23 12:14	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.86	U	0.86	5.00	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.91	U	0.91	5.00	ug/Kg
74-83-9	Bromomethane	1.20	U	1.20	5.00	ug/Kg
75-00-3	Chloroethane	0.89	U	0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	0.97	U	0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.72	U	0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	0.86	U	0.86	5.00	ug/Kg
67-64-1	Acetone	12.2	U	12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	0.75	U	0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.93	U	0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	1.30	U	1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	6.00	U	6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.70	U	0.70	5.00	ug/Kg
110-82-7	Cyclohexane	0.84	U	0.84	5.00	ug/Kg
78-93-3	2-Butanone	7.30	U	7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.79	U	0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	0.81	U	0.81	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.75	U	0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	0.80	U	0.80	5.00	ug/Kg
71-43-2	Benzene	0.66	U	0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.84	U	0.84	5.00	ug/Kg
79-01-6	Trichloroethene	0.73	U	0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.70	U	0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.60	U	4.60	25.0	ug/Kg
108-88-3	Toluene	0.63	U	0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.74	U	0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.71	U	0.71	5.00	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBL01	SDG No.:	O1233
Lab Sample ID:	VD0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075169.D	1		01/23/23 12:14	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.86	U	0.86	5.00	ug/Kg
591-78-6	2-Hexanone	4.70	U	4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.75	U	0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.75	U	0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.76	U	0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	0.65	U	0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.70	U	0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.50	U	1.50	10.0	ug/Kg
95-47-6	o-Xylene	0.79	U	0.79	5.00	ug/Kg
100-42-5	Styrene	0.79	U	0.79	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	0.72	U	0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.63	U	0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.64	U	0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.20	U	1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.94	U	0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.00	U	1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.9		50 - 163	104%	SPK: 50
1868-53-7	Dibromofluoromethane	48.5		54 - 147	97%	SPK: 50
2037-26-5	Toluene-d8	50.8		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		30 - 143	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	95400	7.875			
540-36-3	1,4-Difluorobenzene	184000	8.781			
3114-55-4	Chlorobenzene-d5	168000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	71800	13.522			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBL01	SDG No.:	O1233
Lab Sample ID:	VD0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075169.D	1		01/23/23 12:14	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBL01	SDG No.:	O1233
Lab Sample ID:	VN0120WBL01	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
VN076339.D	1		01/20/23 11:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	0.17	1.00	ug/L
74-87-3	Chloromethane	0.20	U	0.20	1.00	ug/L
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
74-83-9	Bromomethane	1.60	U	1.60	5.00	ug/L
75-00-3	Chloroethane	0.26	U	0.26	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.20	U	0.20	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.17	U	0.17	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
67-64-1	Acetone	1.20	U	1.20	5.00	ug/L
75-15-0	Carbon Disulfide	0.26	U	0.26	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.18	U	0.18	1.00	ug/L
79-20-9	Methyl Acetate	0.53	U	0.53	1.00	ug/L
75-09-2	Methylene Chloride	0.18	U	0.18	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
110-82-7	Cyclohexane	1.20	U	1.20	5.00	ug/L
78-93-3	2-Butanone	0.82	U	0.82	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.18	U	0.18	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
74-97-5	Bromochloromethane	0.19	U	0.19	1.00	ug/L
67-66-3	Chloroform	0.18	U	0.18	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
108-87-2	Methylcyclohexane	0.13	U	0.13	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.17	U	0.17	1.00	ug/L
75-27-4	Bromodichloromethane	0.18	U	0.18	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.87	U	0.87	5.00	ug/L
108-88-3	Toluene	0.17	U	0.17	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.14	U	0.14	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBL01	SDG No.:	O1233
Lab Sample ID:	VN0120WBL01	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
VN076339.D	1		01/20/23 11:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
591-78-6	2-Hexanone	0.76	U	0.76	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.14	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
108-90-7	Chlorobenzene	0.17	U	0.17	1.00	ug/L
100-41-4	Ethyl Benzene	0.17	U	0.17	1.00	ug/L
179601-23-1	m/p-Xylenes	0.33	U	0.33	2.00	ug/L
95-47-6	o-Xylene	0.18	U	0.18	1.00	ug/L
100-42-5	Styrene	0.13	U	0.13	1.00	ug/L
75-25-2	Bromoform	0.16	U	0.16	1.00	ug/L
98-82-8	Isopropylbenzene	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.23	U	0.23	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.42	U	0.42	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.23	U	0.23	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.33	U	0.33	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.5		74 - 125	95%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		75 - 124	97%	SPK: 50
2037-26-5	Toluene-d8	49.7		86 - 113	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		64 - 133	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	491000	8.23			
540-36-3	1,4-Difluorobenzene	774000	9.106			
3114-55-4	Chlorobenzene-d5	658000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	251000	13.794			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBL01	SDG No.:	O1233
Lab Sample ID:	VN0120WBL01	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
VN076339.D	1		01/20/23 11:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0123MBL01	SDG No.:	O1233
Lab Sample ID:	VN0123MBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076356.D	1		01/23/23 10:51	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	86.0	U	86.0	500	ug/Kg
74-87-3	Chloromethane	110	U	110	500	ug/Kg
75-01-4	Vinyl Chloride	91.0	U	91.0	500	ug/Kg
74-83-9	Bromomethane	120	U	120	500	ug/Kg
75-00-3	Chloroethane	89.0	U	89.0	500	ug/Kg
75-69-4	Trichlorofluoromethane	97.0	U	97.0	500	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	72.0	U	72.0	500	ug/Kg
75-35-4	1,1-Dichloroethene	86.0	U	86.0	500	ug/Kg
67-64-1	Acetone	1200	U	1200	2500	ug/Kg
75-15-0	Carbon Disulfide	75.0	U	75.0	500	ug/Kg
1634-04-4	Methyl tert-butyl Ether	93.0	U	93.0	500	ug/Kg
79-20-9	Methyl Acetate	130	U	130	500	ug/Kg
75-09-2	Methylene Chloride	600	U	600	1000	ug/Kg
156-60-5	trans-1,2-Dichloroethene	68.0	U	68.0	500	ug/Kg
75-34-3	1,1-Dichloroethane	70.0	U	70.0	500	ug/Kg
110-82-7	Cyclohexane	84.0	U	84.0	500	ug/Kg
78-93-3	2-Butanone	730	U	730	2500	ug/Kg
56-23-5	Carbon Tetrachloride	79.0	U	79.0	500	ug/Kg
156-59-2	cis-1,2-Dichloroethene	68.0	U	68.0	500	ug/Kg
74-97-5	Bromochloromethane	81.0	U	81.0	500	ug/Kg
67-66-3	Chloroform	67.0	U	67.0	500	ug/Kg
71-55-6	1,1,1-Trichloroethane	75.0	U	75.0	500	ug/Kg
108-87-2	Methylcyclohexane	80.0	U	80.0	500	ug/Kg
71-43-2	Benzene	66.0	U	66.0	500	ug/Kg
107-06-2	1,2-Dichloroethane	84.0	U	84.0	500	ug/Kg
79-01-6	Trichloroethene	73.0	U	73.0	500	ug/Kg
78-87-5	1,2-Dichloropropane	65.0	U	65.0	500	ug/Kg
75-27-4	Bromodichloromethane	70.0	U	70.0	500	ug/Kg
108-10-1	4-Methyl-2-Pentanone	460	U	460	2500	ug/Kg
108-88-3	Toluene	63.0	U	63.0	500	ug/Kg
10061-02-6	t-1,3-Dichloropropene	74.0	U	74.0	500	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	71.0	U	71.0	500	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0123MBL01	SDG No.:	O1233
Lab Sample ID:	VN0123MBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076356.D	1		01/23/23 10:51	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	86.0	U	86.0	500	ug/Kg
591-78-6	2-Hexanone	470	U	470	2500	ug/Kg
124-48-1	Dibromochloromethane	75.0	U	75.0	500	ug/Kg
106-93-4	1,2-Dibromoethane	75.0	U	75.0	500	ug/Kg
127-18-4	Tetrachloroethene	76.0	U	76.0	500	ug/Kg
108-90-7	Chlorobenzene	65.0	U	65.0	500	ug/Kg
100-41-4	Ethyl Benzene	70.0	U	70.0	500	ug/Kg
179601-23-1	m/p-Xylenes	150	U	150	1000	ug/Kg
95-47-6	o-Xylene	79.0	U	79.0	500	ug/Kg
100-42-5	Styrene	79.0	U	79.0	500	ug/Kg
75-25-2	Bromoform	81.0	U	81.0	500	ug/Kg
98-82-8	Isopropylbenzene	72.0	U	72.0	500	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	110	U	110	500	ug/Kg
541-73-1	1,3-Dichlorobenzene	67.0	U	67.0	500	ug/Kg
106-46-7	1,4-Dichlorobenzene	63.0	U	63.0	500	ug/Kg
95-50-1	1,2-Dichlorobenzene	64.0	U	64.0	500	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	120	U	120	500	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	94.0	U	94.0	500	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	100	U	100	500	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.9		50 - 163	100%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		54 - 147	99%	SPK: 50
2037-26-5	Toluene-d8	48.9		58 - 134	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.4		30 - 143	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	304000	8.23			
540-36-3	1,4-Difluorobenzene	491000	9.106			
3114-55-4	Chlorobenzene-d5	404000	11.87			
3855-82-1	1,4-Dichlorobenzene-d4	159000	13.794			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0123MBL01	SDG No.:	O1233
Lab Sample ID:	VN0123MBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076356.D	1		01/23/23 10:51	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBL01	SDG No.:	O1233
Lab Sample ID:	VY0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	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
VY012308.D	1		01/23/23 13:04	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.86	U	0.86	5.00	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.91	U	0.91	5.00	ug/Kg
74-83-9	Bromomethane	1.20	U	1.20	5.00	ug/Kg
75-00-3	Chloroethane	0.89	U	0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	0.97	U	0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.72	U	0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	0.86	U	0.86	5.00	ug/Kg
67-64-1	Acetone	12.2	U	12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	0.75	U	0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.93	U	0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	1.30	U	1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	6.00	U	6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.70	U	0.70	5.00	ug/Kg
110-82-7	Cyclohexane	0.84	U	0.84	5.00	ug/Kg
78-93-3	2-Butanone	7.30	U	7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.79	U	0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	0.81	U	0.81	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.75	U	0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	0.80	U	0.80	5.00	ug/Kg
71-43-2	Benzene	0.66	U	0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.84	U	0.84	5.00	ug/Kg
79-01-6	Trichloroethene	0.73	U	0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.70	U	0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.60	U	4.60	25.0	ug/Kg
108-88-3	Toluene	0.63	U	0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.74	U	0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.71	U	0.71	5.00	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBL01	SDG No.:	O1233
Lab Sample ID:	VY0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	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
VY012308.D	1		01/23/23 13:04	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.86	U	0.86	5.00	ug/Kg
591-78-6	2-Hexanone	4.70	U	4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.75	U	0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.75	U	0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.76	U	0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	0.65	U	0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.70	U	0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.50	U	1.50	10.0	ug/Kg
95-47-6	o-Xylene	0.79	U	0.79	5.00	ug/Kg
100-42-5	Styrene	0.79	U	0.79	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	0.72	U	0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.63	U	0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.64	U	0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.20	U	1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.94	U	0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.00	U	1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.7		50 - 163	105%	SPK: 50
1868-53-7	Dibromofluoromethane	45.4		54 - 147	91%	SPK: 50
2037-26-5	Toluene-d8	47.0		58 - 134	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.2		30 - 143	82%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	162000	7.789			
540-36-3	1,4-Difluorobenzene	255000	8.691			
3114-55-4	Chlorobenzene-d5	228000	11.489			
3855-82-1	1,4-Dichlorobenzene-d4	110000	13.428			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBL01	SDG No.:	O1233
Lab Sample ID:	VY0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	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
VY012308.D	1		01/23/23 13:04	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBS02	SDG No.:	O1233
Lab Sample ID:	VD0120SBS02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075150.D	1		01/20/23 13:45	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	25.8		0.86	5.00	ug/Kg
74-87-3	Chloromethane	22.6		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.1		0.91	5.00	ug/Kg
74-83-9	Bromomethane	21.1		1.20	5.00	ug/Kg
75-00-3	Chloroethane	20.7		0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	21.2		0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	21.7		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	22.5		0.86	5.00	ug/Kg
67-64-1	Acetone	99.8		12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	21.8		0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.8		0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	22.8		1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	20.1		6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	21.1		0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.6		0.70	5.00	ug/Kg
110-82-7	Cyclohexane	21.7		0.84	5.00	ug/Kg
78-93-3	2-Butanone	110		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	20.0		0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	21.6		0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	24.1		0.81	5.00	ug/Kg
67-66-3	Chloroform	21.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	20.8		0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	21.0		0.80	5.00	ug/Kg
71-43-2	Benzene	21.4		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.9		0.84	5.00	ug/Kg
79-01-6	Trichloroethene	20.6		0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.7		0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.4		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.60	25.0	ug/Kg
108-88-3	Toluene	20.7		0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	20.0		0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.7		0.71	5.00	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBS02	SDG No.:	O1233
Lab Sample ID:	VD0120SBS02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075150.D	1		01/20/23 13:45	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	20.9		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.0		0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	21.0		0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.2		0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	20.4		0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.4		0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.6		1.50	10.0	ug/Kg
95-47-6	o-Xylene	20.9		0.79	5.00	ug/Kg
100-42-5	Styrene	20.7		0.79	5.00	ug/Kg
75-25-2	Bromoform	19.9		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	20.1		0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	21.7		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.8		0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.8		0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	20.4		0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	21.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.2		0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	18.4		1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.1		50 - 163	112%	SPK: 50
1868-53-7	Dibromofluoromethane	53.0		54 - 147	106%	SPK: 50
2037-26-5	Toluene-d8	53.3		58 - 134	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.5		30 - 143	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	78300	7.875			
540-36-3	1,4-Difluorobenzene	143000	8.781			
3114-55-4	Chlorobenzene-d5	129000	11.586			
3855-82-1	1,4-Dichlorobenzene-d4	58000	13.522			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBS02	SDG No.:	O1233
Lab Sample ID:	VD0120SBS02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075150.D	1		01/20/23 13:45	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBS01	SDG No.:	O1233
Lab Sample ID:	VD0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075170.D	1		01/23/23 12:41	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	24.9		0.86	5.00	ug/Kg
74-87-3	Chloromethane	22.7		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.4		0.91	5.00	ug/Kg
74-83-9	Bromomethane	19.9		1.20	5.00	ug/Kg
75-00-3	Chloroethane	19.7		0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	21.3		0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	22.1		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	21.7		0.86	5.00	ug/Kg
67-64-1	Acetone	100		12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	21.8		0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.1		0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	22.0		1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	16.3		6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	21.2		0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.5		0.70	5.00	ug/Kg
110-82-7	Cyclohexane	22.0		0.84	5.00	ug/Kg
78-93-3	2-Butanone	100		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	20.3		0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.8		0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	23.2		0.81	5.00	ug/Kg
67-66-3	Chloroform	20.9		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	21.0		0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	20.8		0.80	5.00	ug/Kg
71-43-2	Benzene	21.1		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	21.3		0.84	5.00	ug/Kg
79-01-6	Trichloroethene	19.8		0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.9		0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.8		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.60	25.0	ug/Kg
108-88-3	Toluene	20.8		0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.8		0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.3		0.71	5.00	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBS01	SDG No.:	O1233
Lab Sample ID:	VD0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075170.D	1		01/23/23 12:41	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	21.7		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	21.3		0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.6		0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.7		0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	20.6		0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.9		0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.1		1.50	10.0	ug/Kg
95-47-6	o-Xylene	20.8		0.79	5.00	ug/Kg
100-42-5	Styrene	20.7		0.79	5.00	ug/Kg
75-25-2	Bromoform	20.2		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	19.9		0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.7		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.9		0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.1		0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.7		0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.2		0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	18.1		1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.9		50 - 163	110%	SPK: 50
1868-53-7	Dibromofluoromethane	53.1		54 - 147	106%	SPK: 50
2037-26-5	Toluene-d8	53.7		58 - 134	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.6		30 - 143	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	76000	7.881			
540-36-3	1,4-Difluorobenzene	135000	8.781			
3114-55-4	Chlorobenzene-d5	121000	11.586			
3855-82-1	1,4-Dichlorobenzene-d4	55800	13.522			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBS01	SDG No.:	O1233
Lab Sample ID:	VD0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075170.D	1		01/23/23 12:41	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBS01	SDG No.:	O1233
Lab Sample ID:	VN0120WBS01	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
VN076340.D	1		01/20/23 11:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	17.4		0.17	1.00	ug/L
74-87-3	Chloromethane	16.6		0.20	1.00	ug/L
75-01-4	Vinyl Chloride	17.5		0.22	1.00	ug/L
74-83-9	Bromomethane	17.6		1.60	5.00	ug/L
75-00-3	Chloroethane	18.8		0.26	1.00	ug/L
75-69-4	Trichlorofluoromethane	16.9		0.20	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	17.2		0.17	1.00	ug/L
75-35-4	1,1-Dichloroethene	16.8		0.23	1.00	ug/L
67-64-1	Acetone	85.8		1.20	5.00	ug/L
75-15-0	Carbon Disulfide	15.2		0.26	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	17.6		0.18	1.00	ug/L
79-20-9	Methyl Acetate	16.4		0.53	1.00	ug/L
75-09-2	Methylene Chloride	18.5		0.18	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	16.2		0.20	1.00	ug/L
75-34-3	1,1-Dichloroethane	16.8		0.20	1.00	ug/L
110-82-7	Cyclohexane	16.2		1.20	5.00	ug/L
78-93-3	2-Butanone	83.8		0.82	5.00	ug/L
56-23-5	Carbon Tetrachloride	17.2		0.18	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	17.3		0.17	1.00	ug/L
74-97-5	Bromochloromethane	18.8		0.19	1.00	ug/L
67-66-3	Chloroform	17.0		0.18	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	17.5		0.18	1.00	ug/L
108-87-2	Methylcyclohexane	17.6		0.13	1.00	ug/L
71-43-2	Benzene	17.2		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	17.3		0.18	1.00	ug/L
79-01-6	Trichloroethene	16.7		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	17.0		0.17	1.00	ug/L
75-27-4	Bromodichloromethane	17.6		0.18	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	88.6		0.87	5.00	ug/L
108-88-3	Toluene	16.7		0.17	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.9		0.14	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	17.3		0.16	1.00	ug/L

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBS01	SDG No.:	O1233
Lab Sample ID:	VN0120WBS01	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
VN076340.D	1		01/20/23 11:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	17.5		0.19	1.00	ug/L
591-78-6	2-Hexanone	88.3		0.76	5.00	ug/L
124-48-1	Dibromochloromethane	18.0		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	17.8		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	17.6		0.18	1.00	ug/L
108-90-7	Chlorobenzene	17.8		0.17	1.00	ug/L
100-41-4	Ethyl Benzene	18.3		0.17	1.00	ug/L
179601-23-1	m/p-Xylenes	36.8		0.33	2.00	ug/L
95-47-6	o-Xylene	18.5		0.18	1.00	ug/L
100-42-5	Styrene	18.3		0.13	1.00	ug/L
75-25-2	Bromoform	18.1		0.16	1.00	ug/L
98-82-8	Isopropylbenzene	19.4		0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.1		0.23	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	17.6		0.20	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.0		0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	17.4		0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	17.9		0.42	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	16.7		0.23	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	17.1		0.33	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.0		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	50.7		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		64 - 133	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	434000	8.23			
540-36-3	1,4-Difluorobenzene	687000	9.106			
3114-55-4	Chlorobenzene-d5	591000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	268000	13.794			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBS01	SDG No.:	O1233
Lab Sample ID:	VN0120WBS01	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
VN076340.D	1		01/20/23 11:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0123MBS01	SDG No.:	O1233
Lab Sample ID:	VN0123MBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076358.D	1		01/23/23 11:39	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1800		86.0	500	ug/Kg
74-87-3	Chloromethane	1800		110	500	ug/Kg
75-01-4	Vinyl Chloride	2000		91.0	500	ug/Kg
74-83-9	Bromomethane	1900		120	500	ug/Kg
75-00-3	Chloroethane	2000		89.0	500	ug/Kg
75-69-4	Trichlorofluoromethane	1700		97.0	500	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1800		72.0	500	ug/Kg
75-35-4	1,1-Dichloroethene	1700		86.0	500	ug/Kg
67-64-1	Acetone	10700		1200	2500	ug/Kg
75-15-0	Carbon Disulfide	1700		75.0	500	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1800		93.0	500	ug/Kg
79-20-9	Methyl Acetate	1800		130	500	ug/Kg
75-09-2	Methylene Chloride	1700		600	1000	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1700		68.0	500	ug/Kg
75-34-3	1,1-Dichloroethane	1800		70.0	500	ug/Kg
110-82-7	Cyclohexane	1700		84.0	500	ug/Kg
78-93-3	2-Butanone	9300		730	2500	ug/Kg
56-23-5	Carbon Tetrachloride	1900		79.0	500	ug/Kg
156-59-2	cis-1,2-Dichloroethene	1700		68.0	500	ug/Kg
74-97-5	Bromochloromethane	2100		81.0	500	ug/Kg
67-66-3	Chloroform	1800		67.0	500	ug/Kg
71-55-6	1,1,1-Trichloroethane	1800		75.0	500	ug/Kg
108-87-2	Methylcyclohexane	1700		80.0	500	ug/Kg
71-43-2	Benzene	1800		66.0	500	ug/Kg
107-06-2	1,2-Dichloroethane	1800		84.0	500	ug/Kg
79-01-6	Trichloroethene	1700		73.0	500	ug/Kg
78-87-5	1,2-Dichloropropane	1800		65.0	500	ug/Kg
75-27-4	Bromodichloromethane	1900		70.0	500	ug/Kg
108-10-1	4-Methyl-2-Pentanone	9500		460	2500	ug/Kg
108-88-3	Toluene	1700		63.0	500	ug/Kg
10061-02-6	t-1,3-Dichloropropene	1900		74.0	500	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	1900		71.0	500	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0123MBS01	SDG No.:	O1233
Lab Sample ID:	VN0123MBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076358.D	1		01/23/23 11:39	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1800		86.0	500	ug/Kg
591-78-6	2-Hexanone	9400		470	2500	ug/Kg
124-48-1	Dibromochloromethane	2000		75.0	500	ug/Kg
106-93-4	1,2-Dibromoethane	1800		75.0	500	ug/Kg
127-18-4	Tetrachloroethene	1700		76.0	500	ug/Kg
108-90-7	Chlorobenzene	1800		65.0	500	ug/Kg
100-41-4	Ethyl Benzene	1900		70.0	500	ug/Kg
179601-23-1	m/p-Xylenes	3700		150	1000	ug/Kg
95-47-6	o-Xylene	1800		79.0	500	ug/Kg
100-42-5	Styrene	1900		79.0	500	ug/Kg
75-25-2	Bromoform	2100		81.0	500	ug/Kg
98-82-8	Isopropylbenzene	2000		72.0	500	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1900		110	500	ug/Kg
541-73-1	1,3-Dichlorobenzene	1800		67.0	500	ug/Kg
106-46-7	1,4-Dichlorobenzene	1800		63.0	500	ug/Kg
95-50-1	1,2-Dichlorobenzene	1700		64.0	500	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1800		120	500	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1700		94.0	500	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1700		100	500	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.1		50 - 163	104%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	50.9		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.3		30 - 143	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	382000	8.23			
540-36-3	1,4-Difluorobenzene	610000	9.106			
3114-55-4	Chlorobenzene-d5	527000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	238000	13.794			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0123MBS01	SDG No.:	O1233
Lab Sample ID:	VN0123MBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076358.D	1		01/23/23 11:39	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBS01	SDG No.:	O1233
Lab Sample ID:	VY0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	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
VY012309.D	1		01/23/23 13:27	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	21.2		0.86	5.00	ug/Kg
74-87-3	Chloromethane	19.7		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.0		0.91	5.00	ug/Kg
74-83-9	Bromomethane	21.0		1.20	5.00	ug/Kg
75-00-3	Chloroethane	20.8		0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	21.2		0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	20.8		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	20.6		0.86	5.00	ug/Kg
67-64-1	Acetone	87.9		12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	20.2		0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	19.4		0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	18.3		1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	15.2		6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	20.1		0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.5		0.70	5.00	ug/Kg
110-82-7	Cyclohexane	20.2		0.84	5.00	ug/Kg
78-93-3	2-Butanone	92.3		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	20.7		0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.5		0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	19.2		0.81	5.00	ug/Kg
67-66-3	Chloroform	20.4		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	20.7		0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	20.8		0.80	5.00	ug/Kg
71-43-2	Benzene	20.5		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.2		0.84	5.00	ug/Kg
79-01-6	Trichloroethene	20.1		0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.3		0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.3		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	93.5		4.60	25.0	ug/Kg
108-88-3	Toluene	20.4		0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.6		0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.1		0.71	5.00	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBS01	SDG No.:	O1233
Lab Sample ID:	VY0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	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
VY012309.D	1		01/23/23 13:27	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	19.6		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	92.0		4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	19.7		0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	19.3		0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	21.0		0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	20.2		0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.3		0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.2		1.50	10.0	ug/Kg
95-47-6	o-Xylene	20.0		0.79	5.00	ug/Kg
100-42-5	Styrene	20.4		0.79	5.00	ug/Kg
75-25-2	Bromoform	19.1		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	20.6		0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	19.3		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.8		0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.5		0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.4		0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	18.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	17.9		0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.2		1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.4		50 - 163	99%	SPK: 50
1868-53-7	Dibromofluoromethane	46.3		54 - 147	93%	SPK: 50
2037-26-5	Toluene-d8	48.5		58 - 134	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.5		30 - 143	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	174000	7.789			
540-36-3	1,4-Difluorobenzene	264000	8.691			
3114-55-4	Chlorobenzene-d5	240000	11.489			
3855-82-1	1,4-Dichlorobenzene-d4	122000	13.428			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBS01	SDG No.:	O1233
Lab Sample ID:	VY0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	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
VY012309.D	1		01/23/23 13:27	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBSD01	SDG No.:	O1233
Lab Sample ID:	VD0123SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075171.D	1		01/23/23 13:08	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	26.4		0.86	5.00	ug/Kg
74-87-3	Chloromethane	22.1		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.9		0.91	5.00	ug/Kg
74-83-9	Bromomethane	20.4		1.20	5.00	ug/Kg
75-00-3	Chloroethane	21.5		0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	22.5		0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	22.5		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	22.4		0.86	5.00	ug/Kg
67-64-1	Acetone	100		12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	22.3		0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.2		0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	22.9		1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	16.9		6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	21.8		0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.7		0.70	5.00	ug/Kg
110-82-7	Cyclohexane	21.6		0.84	5.00	ug/Kg
78-93-3	2-Butanone	110		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	20.2		0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	21.5		0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	24.2		0.81	5.00	ug/Kg
67-66-3	Chloroform	21.3		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	21.3		0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	21.1		0.80	5.00	ug/Kg
71-43-2	Benzene	21.6		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	21.1		0.84	5.00	ug/Kg
79-01-6	Trichloroethene	20.0		0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	21.3		0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	21.5		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.60	25.0	ug/Kg
108-88-3	Toluene	21.3		0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.7		0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.4		0.71	5.00	ug/Kg

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBSD01	SDG No.:	O1233
Lab Sample ID:	VD0123SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075171.D	1		01/23/23 13:08	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	21.3		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.9		0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	21.2		0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	20.1		0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	20.5		0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	21.0		0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	42.9		1.50	10.0	ug/Kg
95-47-6	o-Xylene	20.4		0.79	5.00	ug/Kg
100-42-5	Styrene	21.5		0.79	5.00	ug/Kg
75-25-2	Bromoform	20.2		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	20.1		0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	21.6		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	20.2		0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.6		0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	20.6		0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	22.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	19.0		0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	18.8		1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.7		50 - 163	107%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	52.9		58 - 134	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.2		30 - 143	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	72400	7.875			
540-36-3	1,4-Difluorobenzene	130000	8.781			
3114-55-4	Chlorobenzene-d5	116000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	53200	13.522			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBSD01	SDG No.:	O1233
Lab Sample ID:	VD0123SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075171.D	1		01/23/23 13:08	VD012323

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

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

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBSD01	SDG No.:	O1233
Lab Sample ID:	VN0120WBSD01	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
VN076341.D	1		01/20/23 12:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	18.1		0.17	1.00	ug/L
74-87-3	Chloromethane	17.3		0.20	1.00	ug/L
75-01-4	Vinyl Chloride	18.3		0.22	1.00	ug/L
74-83-9	Bromomethane	18.7		1.60	5.00	ug/L
75-00-3	Chloroethane	18.9		0.26	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.0		0.20	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.7		0.17	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.4		0.23	1.00	ug/L
67-64-1	Acetone	91.0		1.20	5.00	ug/L
75-15-0	Carbon Disulfide	16.3		0.26	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.9		0.18	1.00	ug/L
79-20-9	Methyl Acetate	18.5		0.53	1.00	ug/L
75-09-2	Methylene Chloride	20.5		0.18	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.0		0.20	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.4		0.20	1.00	ug/L
110-82-7	Cyclohexane	17.4		1.20	5.00	ug/L
78-93-3	2-Butanone	92.2		0.82	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.7		0.18	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.6		0.17	1.00	ug/L
74-97-5	Bromochloromethane	20.4		0.19	1.00	ug/L
67-66-3	Chloroform	18.8		0.18	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.5		0.18	1.00	ug/L
108-87-2	Methylcyclohexane	19.1		0.13	1.00	ug/L
71-43-2	Benzene	18.8		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.5		0.18	1.00	ug/L
79-01-6	Trichloroethene	18.0		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.2		0.17	1.00	ug/L
75-27-4	Bromodichloromethane	19.5		0.18	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	98.9		0.87	5.00	ug/L
108-88-3	Toluene	18.5		0.17	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.8		0.14	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.4		0.16	1.00	ug/L

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBSD01	SDG No.:	O1233
Lab Sample ID:	VN0120WBSD01	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
VN076341.D	1		01/20/23 12:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	19.5		0.19	1.00	ug/L
591-78-6	2-Hexanone	98.1		0.76	5.00	ug/L
124-48-1	Dibromochloromethane	20.2		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	19.4		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	18.4		0.18	1.00	ug/L
108-90-7	Chlorobenzene	18.8		0.17	1.00	ug/L
100-41-4	Ethyl Benzene	19.1		0.17	1.00	ug/L
179601-23-1	m/p-Xylenes	38.2		0.33	2.00	ug/L
95-47-6	o-Xylene	19.2		0.18	1.00	ug/L
100-42-5	Styrene	19.4		0.13	1.00	ug/L
75-25-2	Bromoform	19.8		0.16	1.00	ug/L
98-82-8	Isopropylbenzene	19.9		0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.3		0.23	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.1		0.20	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.8		0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.1		0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	19.9		0.42	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	18.4		0.23	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	18.5		0.33	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.3		74 - 125	103%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	51.4		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.4		64 - 133	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	360000	8.23			
540-36-3	1,4-Difluorobenzene	568000	9.106			
3114-55-4	Chlorobenzene-d5	510000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	238000	13.794			

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBSD01	SDG No.:	O1233
Lab Sample ID:	VN0120WBSD01	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
VN076341.D	1		01/20/23 12:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

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CALIBRATION SUMMARY

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

Instrument ID: MSVOA_D Calibration Date(s): 01/18/2023 01/18/2023

Heated Purge: (Y/N) Y Calibration Time(s): 10:25 13:10

GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID: RRF005 = VD075124.D RRF010 = VD075125.D RRF020 = VD075126.D
RRF050 = VD075127.D RRF100 = VD075128.D RRF150 = VD075129.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.476	0.507	0.518	0.365	0.373	0.374	0.435	16.6
Chloromethane	0.725	0.734	0.686	0.608	0.556	0.566	0.646	12.3
Vinyl Chloride	0.741	0.724	0.728	0.656	0.641	0.668	0.693	6.2
Bromomethane	0.534	0.516	0.461	0.451	0.415	0.451	0.471	9.5
Chloroethane	0.496	0.511	0.487	0.473	0.445	0.471	0.481	4.7
Trichlorofluoromethane	0.959	0.897	0.901	0.850	0.832	0.847	0.881	5.4
1,1,2-Trichlorotrifluoroethane	0.580	0.547	0.579	0.517	0.519	0.521	0.544	5.5
1,1-Dichloroethene	0.596	0.603	0.595	0.563	0.537	0.541	0.573	5.2
Acetone	0.109	0.139	0.126	0.160	0.136	0.138	0.135	12.6
Carbon Disulfide	1.982	1.978	1.942	1.832	1.710	1.698	1.857	7
Methyl tert-butyl Ether	1.168	1.255	1.164	1.290	1.128	1.170	1.196	5.2
Methyl Acetate	0.390	0.401	0.353	0.387	0.325	0.338	0.366	8.5
Methylene Chloride	0.972	1.161	0.911	0.794	0.629	0.625	0.849	24.6
trans-1,2-Dichloroethene	0.695	0.676	0.631	0.657	0.583	0.583	0.637	7.4
1,1-Dichloroethane	1.130	1.181	1.083	1.112	1.002	1.012	1.087	6.4
Cyclohexane	1.295	1.059	1.049	0.935	0.895	0.907	1.023	14.7
2-Butanone	0.159	0.176	0.150	0.182	0.151	0.158	0.163	8.2
Carbon Tetrachloride	0.398	0.375	0.404	0.406	0.434	0.435	0.409	5.6
cis-1,2-Dichloroethene	0.720	0.728	0.707	0.726	0.648	0.640	0.695	5.8
Bromochloromethane	0.312	0.338	0.320	0.297	0.258	0.255	0.297	11.3
Chloroform	1.169	1.159	1.067	1.122	0.986	0.999	1.084	7.3
1,1,1-Trichloroethane	0.981	0.987	0.926	0.937	0.878	0.894	0.934	4.7
Methylcyclohexane	0.646	0.590	0.599	0.570	0.597	0.588	0.598	4.2
Benzene	1.458	1.425	1.368	1.438	1.328	1.290	1.384	4.8
1,2-Dichloroethane	0.359	0.376	0.350	0.384	0.355	0.358	0.364	3.6
Trichloroethene	0.410	0.401	0.373	0.400	0.376	0.374	0.389	4.2
1,2-Dichloropropane	0.365	0.355	0.323	0.355	0.327	0.321	0.341	5.7
Bromodichloromethane	0.449	0.455	0.417	0.473	0.443	0.440	0.446	4.2
4-Methyl-2-Pentanone	0.171	0.192	0.172	0.192	0.180	0.190	0.183	5.4
Toluene	0.912	0.906	0.864	0.916	0.829	0.822	0.875	4.9
t-1,3-Dichloropropene	0.402	0.426	0.399	0.447	0.426	0.433	0.422	4.4
cis-1,3-Dichloropropene	0.486	0.519	0.501	0.556	0.511	0.521	0.516	4.6
1,1,2-Trichloroethane	0.243	0.245	0.229	0.255	0.225	0.232	0.238	4.7

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

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

Instrument ID: MSVOA_D Calibration Date(s): 01/18/2023 01/18/2023

Heated Purge: (Y/N) Y Calibration Time(s): 10:25 13:10

GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID: RRF005 = VD075124.D RRF010 = VD075125.D RRF020 = VD075126.D
RRF050 = VD075127.D RRF100 = VD075128.D RRF150 = VD075129.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
2-Hexanone	0.115	0.140	0.123	0.144	0.131	0.140	0.132	8.7
Dibromochloromethane	0.279	0.299	0.262	0.310	0.283	0.288	0.287	5.7
1,2-Dibromoethane	0.234	0.228	0.221	0.242	0.217	0.222	0.227	4
Tetrachloroethene	0.380	0.363	0.358	0.350	0.346	0.344	0.357	3.8
Chlorobenzene	1.129	1.025	1.005	1.054	0.972	0.962	1.025	6
Ethyl Benzene	1.914	1.826	1.855	1.865	1.805	1.800	1.844	2.3
m/p-Xylenes	0.755	0.701	0.722	0.718	0.689	0.690	0.712	3.5
o-Xylene	0.687	0.668	0.661	0.696	0.647	0.651	0.668	2.9
Styrene	1.119	1.139	1.102	1.153	1.073	1.079	1.111	2.9
Bromoform	0.166	0.176	0.166	0.188	0.184	0.187	0.178	5.7
Isopropylbenzene	4.215	3.842	3.974	3.847	3.954	3.864	3.949	3.6
1,1,2,2-Tetrachloroethane	0.601	0.674	0.626	0.645	0.614	0.615	0.629	4.2
1,3-Dichlorobenzene	1.817	1.801	1.783	1.756	1.684	1.651	1.749	3.8
1,4-Dichlorobenzene	1.818	1.764	1.700	1.721	1.676	1.644	1.720	3.6
1,2-Dichlorobenzene	1.532	1.491	1.515	1.532	1.454	1.453	1.496	2.4
1,2-Dibromo-3-Chloropropane	0.084	0.095	0.095	0.102	0.097	0.104	0.096	7.4
1,2,4-Trichlorobenzene	0.983	0.990	0.933	0.997	0.987	1.005	0.982	2.6
1,2,3-Trichlorobenzene	0.813	0.833	0.820	0.854	0.847	0.863	0.838	2.3
1,2-Dichloroethane-d4	0.524	0.543	0.501	0.537	0.472	0.485	0.510	5.7
Dibromofluoromethane	0.288	0.312	0.301	0.322	0.297	0.293	0.302	4.2
Toluene-d8	1.228	1.239	1.152	1.232	1.153	1.133	1.190	4.1
4-Bromofluorobenzene	0.409	0.376	0.363	0.397	0.357	0.363	0.378	5.6

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

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

Instrument ID: MSVOA_N Calibration Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) N Calibration Time(s): 10:54 13:17

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

LAB FILE ID: RRF005 = VN076261.D RRF010 = VN076262.D RRF020 = VN076263.D
RRF050 = VN076264.D RRF075 = VN076265.D RRF001 = VN076267.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF075	RRF001	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.452	0.537	0.523	0.526	0.541	0.496	0.512	6.6
Chloromethane	0.503	0.544	0.523	0.522	0.522	0.569	0.531	4.3
Vinyl Chloride	0.658	0.653	0.644	0.644	0.657	0.647	0.650	1
Bromomethane	0.558	0.534	0.525	0.515	0.532		0.533	3
Chloroethane	0.475	0.484	0.471	0.457	0.487	0.553	0.488	6.9
Trichlorofluoromethane	0.887	0.887	0.880	0.875	0.898	0.942	0.895	2.7
1,1,2-Trichlorotrifluoroethane	0.511	0.531	0.502	0.498	0.511	0.487	0.507	3
1,1-Dichloroethene	0.470	0.479	0.459	0.477	0.486	0.503	0.479	3.1
Acetone	0.187	0.185	0.173	0.175	0.182	0.269	0.195	18.8
Carbon Disulfide	1.073	1.179	1.141	1.184	1.228	1.350	1.192	7.8
Methyl tert-butyl Ether	1.517	1.535	1.537	1.597	1.633	1.535	1.559	2.9
Methyl Acetate	0.618	0.606	0.574	0.588	0.599	0.664	0.608	5.1
Methylene Chloride	0.579	0.550	0.543	0.517	0.535	1.144	0.645	38.1
trans-1,2-Dichloroethene	0.520	0.501	0.500	0.506	0.513	0.573	0.519	5.4
1,1-Dichloroethane	0.910	0.897	0.854	0.868	0.893	0.842	0.877	3.1
Cyclohexane	1.007	0.875	0.833	0.787	0.798		0.860	10.4
2-Butanone	0.265	0.275	0.263	0.273	0.278	0.290	0.274	3.5
Carbon Tetrachloride	0.489	0.490	0.486	0.499	0.514	0.496	0.496	2
cis-1,2-Dichloroethene	0.615	0.591	0.597	0.599	0.614	0.614	0.605	1.7
Bromochloromethane	0.364	0.333	0.353	0.362	0.380	0.342	0.356	4.7
Chloroform	0.966	0.972	0.931	0.965	0.978	1.013	0.971	2.7
1,1,1-Trichloroethane	0.885	0.878	0.870	0.884	0.924	0.876	0.886	2.2
Methylcyclohexane	0.532	0.525	0.557	0.572	0.597	0.474	0.543	7.9
Benzene	1.325	1.322	1.316	1.333	1.358	1.320	1.329	1.1
1,2-Dichloroethane	0.458	0.448	0.441	0.450	0.460	0.471	0.455	2.4
Trichloroethene	0.398	0.372	0.354	0.361	0.370	0.399	0.376	5
1,2-Dichloropropane	0.326	0.315	0.314	0.315	0.325	0.315	0.318	1.8
Bromodichloromethane	0.450	0.459	0.456	0.474	0.486	0.471	0.466	2.8
4-Methyl-2-Pentanone	0.327	0.341	0.341	0.356	0.367	0.310	0.340	5.9
Toluene	0.891	0.894	0.870	0.885	0.909	0.883	0.889	1.5
t-1,3-Dichloropropene	0.409	0.426	0.442	0.489	0.514	0.386	0.444	10.9
cis-1,3-Dichloropropene	0.468	0.506	0.505	0.531	0.565	0.490	0.511	6.6
1,1,2-Trichloroethane	0.340	0.336	0.330	0.331	0.350	0.350	0.340	2.6

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

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

Instrument ID: MSVOA_N Calibration Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) N Calibration Time(s): 10:54 13:17

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

LAB FILE ID: RRF005 = VN076261.D RRF010 = VN076262.D RRF020 = VN076263.D
RRF050 = VN076264.D RRF075 = VN076265.D RRF001 = VN076267.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF075	RRF001	$\overline{RRF}$	% RSD
2-Hexanone	0.232	0.242	0.249	0.261	0.269	0.228	0.247	6.5
Dibromochloromethane	0.342	0.354	0.358	0.382	0.400	0.310	0.358	8.8
1,2-Dibromoethane	0.334	0.340	0.335	0.350	0.361	0.314	0.339	4.7
Tetrachloroethene	0.501	0.460	0.422	0.393	0.388	0.541	0.451	13.6
Chlorobenzene	1.040	1.054	1.017	1.034	1.051	1.146	1.057	4.3
Ethyl Benzene	1.707	1.820	1.814	1.880	1.921	1.711	1.809	4.8
m/p-Xylenes	0.678	0.727	0.721	0.745	0.771	0.710	0.725	4.4
o-Xylene	0.670	0.706	0.710	0.739	0.751	0.699	0.712	4.1
Styrene	1.037	1.097	1.137	1.206	1.250	1.096	1.137	6.9
Bromoform	0.252	0.270	0.282	0.304	0.323	0.273	0.284	9
Isopropylbenzene	3.802	4.040	3.943	3.806	3.824	3.793	3.868	2.6
1,1,2,2-Tetrachloroethane	1.108	1.079	1.071	1.057	1.047	1.309	1.112	8.9
1,3-Dichlorobenzene	1.692	1.760	1.675	1.724	1.759	2.328	1.823	13.7
1,4-Dichlorobenzene	1.740	1.728	1.692	1.701	1.752	2.439	1.842	15.9
1,2-Dichlorobenzene	1.766	1.760	1.703	1.716	1.725	2.224	1.816	11.1
1,2-Dibromo-3-Chloropropane	0.182	0.180	0.187	0.207	0.201	0.204	0.193	6.2
1,2,4-Trichlorobenzene	0.652	0.757	0.760	0.875	0.892	1.282	0.870	25.3
1,2,3-Trichlorobenzene	0.648	0.758	0.730	0.832	0.850	1.121	0.823	19.8
1,2-Dichloroethane-d4	0.584	0.526	0.549	0.554	0.586		0.560	4.5
Dibromofluoromethane	0.331	0.295	0.312	0.306	0.321		0.313	4.4
Toluene-d8	1.176	1.062	1.151	1.165	1.222		1.155	5.1
4-Bromofluorobenzene	0.356	0.334	0.371	0.393	0.431		0.377	9.8

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

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

Instrument ID: MSVOA_Y Calibration Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) Y Calibration Time(s): 12:17 14:34

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

LAB FILE ID: RRF005 = VY012194.D RRF010 = VY012195.D RRF020 = VY012196.D
RRF050 = VY012197.D RRF100 = VY012198.D RRF150 = VY012199.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.456	0.520	0.486	0.372	0.410	0.378	0.437	13.8
Chloromethane	0.452	0.440	0.400	0.368	0.389	0.372	0.403	8.7
Vinyl Chloride	0.503	0.508	0.479	0.435	0.464	0.436	0.471	6.8
Bromomethane	0.428	0.398	0.355	0.334	0.352	0.317	0.364	11.4
Chloroethane	0.324	0.324	0.310	0.287	0.310	0.288	0.307	5.3
Trichlorofluoromethane	0.951	0.994	0.945	0.842	0.929	0.853	0.919	6.5
1,1,2-Trichlorotrifluoroethane	0.454	0.481	0.455	0.407	0.457	0.430	0.447	5.7
1,1-Dichloroethene	0.470	0.477	0.459	0.438	0.469	0.443	0.459	3.4
Acetone	0.111	0.149	0.123	0.154	0.149	0.150	0.139	12.9
Carbon Disulfide	1.466	1.490	1.413	1.343	1.443	1.367	1.420	4
Methyl tert-butyl Ether	1.159	1.395	1.250	1.280	1.325	1.273	1.280	6.1
Methyl Acetate	0.308	0.340	0.287	0.301	0.308	0.326	0.312	6
Methylene Chloride	1.174	1.020	0.736	0.570	0.559	0.513	0.762	36.1
trans-1,2-Dichloroethene	0.519	0.543	0.512	0.495	0.519	0.487	0.512	3.9
1,1-Dichloroethane	0.804	0.812	0.772	0.760	0.805	0.759	0.785	3.1
Cyclohexane	0.845	0.795	0.707	0.633	0.713	0.681	0.729	10.6
2-Butanone	0.125	0.175	0.143	0.157	0.156	0.166	0.154	11.5
Carbon Tetrachloride	0.600	0.615	0.594	0.552	0.583	0.543	0.581	4.9
cis-1,2-Dichloroethene	0.571	0.583	0.555	0.548	0.582	0.538	0.563	3.3
Bromochloromethane	0.214	0.177	0.160	0.159	0.160	0.158	0.171	12.8
Chloroform	0.940	0.997	0.912	0.900	0.952	0.860	0.927	5.1
1,1,1-Trichloroethane	0.932	0.969	0.901	0.885	0.950	0.868	0.918	4.3
Methylcyclohexane	0.549	0.566	0.556	0.514	0.564	0.550	0.550	3.4
Benzene	1.354	1.375	1.297	1.237	1.289	1.239	1.299	4.4
1,2-Dichloroethane	0.404	0.453	0.413	0.408	0.414	0.389	0.413	5.2
Trichloroethene	0.404	0.405	0.395	0.372	0.387	0.366	0.388	4.2
1,2-Dichloropropane	0.267	0.288	0.268	0.261	0.277	0.266	0.271	3.6
Bromodichloromethane	0.437	0.488	0.460	0.446	0.468	0.440	0.457	4.2
4-Methyl-2-Pentanone	0.165	0.218	0.193	0.199	0.195	0.211	0.197	9.3
Toluene	0.875	0.896	0.872	0.840	0.877	0.828	0.865	3
t-1,3-Dichloropropene	0.454	0.501	0.478	0.475	0.488	0.470	0.478	3.3
cis-1,3-Dichloropropene	0.492	0.547	0.514	0.508	0.525	0.500	0.514	3.8
1,1,2-Trichloroethane	0.252	0.286	0.255	0.254	0.253	0.246	0.258	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.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

Instrument ID: MSVOA_Y Calibration Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) Y Calibration Time(s): 12:17 14:34

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

LAB FILE ID: RRF005 = VY012194.D RRF010 = VY012195.D RRF020 = VY012196.D
RRF050 = VY012197.D RRF100 = VY012198.D RRF150 = VY012199.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
2-Hexanone	0.115	0.166	0.145	0.158	0.153	0.163	0.150	12.5
Dibromochloromethane	0.321	0.369	0.345	0.343	0.344	0.328	0.342	4.8
1,2-Dibromoethane	0.233	0.273	0.247	0.247	0.250	0.243	0.249	5.4
Tetrachloroethene	0.461	0.494	0.468	0.451	0.447	0.417	0.456	5.6
Chlorobenzene	1.097	1.064	1.013	0.990	1.013	0.961	1.023	4.8
Ethyl Benzene	1.877	1.892	1.821	1.791	1.838	1.752	1.828	2.9
m/p-Xylenes	0.732	0.752	0.730	0.711	0.726	0.687	0.723	3.1
o-Xylene	0.706	0.715	0.695	0.680	0.692	0.654	0.690	3.1
Styrene	1.140	1.203	1.157	1.149	1.167	1.106	1.154	2.8
Bromoform	0.227	0.272	0.250	0.249	0.242	0.240	0.247	6
Isopropylbenzene	3.672	3.672	3.604	3.501	3.715	3.469	3.605	2.8
1,1,2,2-Tetrachloroethane	0.544	0.622	0.546	0.563	0.561	0.572	0.568	5
1,3-Dichlorobenzene	1.837	1.799	1.736	1.665	1.725	1.591	1.726	5.2
1,4-Dichlorobenzene	1.888	1.818	1.695	1.642	1.705	1.577	1.721	6.6
1,2-Dichlorobenzene	1.660	1.639	1.521	1.485	1.511	1.422	1.540	6
1,2-Dibromo-3-Chloropropane	0.103	0.133	0.116	0.116	0.115	0.121	0.117	8.3
1,2,4-Trichlorobenzene	1.049	0.995	0.986	0.932	0.977	0.980	0.987	3.8
1,2,3-Trichlorobenzene	0.870	0.862	0.864	0.798	0.837	0.862	0.849	3.3
1,2-Dichloroethane-d4	0.533	0.551	0.498	0.409	0.409	0.388	0.465	15.3
Dibromofluoromethane	0.292	0.291	0.289	0.241	0.242	0.233	0.265	10.8
Toluene-d8	1.242	1.188	1.195	0.890	0.892	0.859	1.044	17.3
4-Bromofluorobenzene	0.425	0.419	0.403	0.333	0.336	0.323	0.373	12.7

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_D Calibration Date/Time: 01/20/2023 11:13

Lab File ID: VD075146.D Init. Calib. Date(s): 01/18/2023 01/18/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:25 13:10

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.435	0.403		-7.36	20
Chloromethane	0.646	0.592	0.1	-8.36	20
Vinyl Chloride	0.693	0.650		-6.2	20
Bromomethane	0.471	0.446		-5.31	20
Chloroethane	0.481	0.471		-2.08	20
Trichlorofluoromethane	0.881	0.908		3.07	20
1,1,2-Trichlorotrifluoroethane	0.544	0.579		6.43	20
1,1-Dichloroethene	0.573	0.596		4.01	20
Acetone	0.135	0.162		20	20
Carbon Disulfide	1.857	1.937		4.31	20
Methyl tert-butyl Ether	1.196	1.225		2.42	20
Methyl Acetate	0.366	0.370		1.09	20
Methylene Chloride	0.849	0.689		-18.85	20
trans-1,2-Dichloroethene	0.637	0.665		4.4	20
1,1-Dichloroethane	1.087	1.152	0.1	5.98	20
Cyclohexane	1.023	1.045		2.15	20
2-Butanone	0.163	0.183		12.27	20
Carbon Tetrachloride	0.409	0.449		9.78	20
cis-1,2-Dichloroethene	0.695	0.719		3.45	20
Bromochloromethane	0.297	0.289		-2.69	20
Chloroform	1.084	1.111		2.49	20
1,1,1-Trichloroethane	0.934	0.984		5.35	20
Methylcyclohexane	0.598	0.658		10.03	20
Benzene	1.384	1.453		4.99	20
1,2-Dichloroethane	0.364	0.387		6.32	20
Trichloroethene	0.389	0.402		3.34	20
1,2-Dichloropropane	0.341	0.366		7.33	20
Bromodichloromethane	0.446	0.473		6.05	20
4-Methyl-2-Pentanone	0.183	0.194		6.01	20
Toluene	0.875	0.922		5.37	20
t-1,3-Dichloropropene	0.422	0.441		4.5	20
cis-1,3-Dichloropropene	0.516	0.551		6.78	20
1,1,2-Trichloroethane	0.238	0.249		4.62	20
2-Hexanone	0.132	0.152		15.15	20
Dibromochloromethane	0.287	0.301		4.88	20
1,2-Dibromoethane	0.227	0.233		2.64	20
Tetrachloroethene	0.357	0.381		6.72	20
Chlorobenzene	1.025	1.070	0.3	4.39	20
Ethyl Benzene	1.844	1.986		7.7	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_D Calibration Date/Time: 01/20/2023 11:13

Lab File ID: VD075146.D Init. Calib. Date(s): 01/18/2023 01/18/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:25 13:10

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.712	0.763		7.16	20
o-Xylene	0.668	0.712		6.59	20
Styrene	1.111	1.175		5.76	20
Bromoform	0.178	0.191	0.1	7.3	20
Isopropylbenzene	3.949	4.198		6.3	20
1,1,2,2-Tetrachloroethane	0.629	0.668	0.3	6.2	20
1,3-Dichlorobenzene	1.749	1.801		2.97	20
1,4-Dichlorobenzene	1.720	1.777		3.31	20
1,2-Dichlorobenzene	1.496	1.536		2.67	20
1,2-Dibromo-3-Chloropropane	0.096	0.100		4.17	20
1,2,4-Trichlorobenzene	0.982	0.996		1.43	20
1,2,3-Trichlorobenzene	0.838	0.846		0.95	20
1,2-Dichloroethane-d4	0.510	0.508		-0.39	20
Dibromofluoromethane	0.302	0.312		3.31	20
Toluene-d8	1.190	1.231		3.44	20
4-Bromofluorobenzene	0.378	0.382		1.06	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_D Calibration Date/Time: 01/23/2023 10:15

Lab File ID: VD075168.D Init. Calib. Date(s): 01/18/2023 01/18/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:25 13:10

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.435	0.374		-14.02	20
Chloromethane	0.646	0.586	0.1	-9.29	20
Vinyl Chloride	0.693	0.633		-8.66	20
Bromomethane	0.471	0.424		-9.98	20
Chloroethane	0.481	0.441		-8.32	20
Trichlorofluoromethane	0.881	0.868		-1.48	20
1,1,2-Trichlorotrifluoroethane	0.544	0.536		-1.47	20
1,1-Dichloroethene	0.573	0.563		-1.75	20
Acetone	0.135	0.184		36.3	20
Carbon Disulfide	1.857	1.830		-1.45	20
Methyl tert-butyl Ether	1.196	1.193		-0.25	20
Methyl Acetate	0.366	0.363		-0.82	20
Methylene Chloride	0.849	0.628		-26.03	20
trans-1,2-Dichloroethene	0.637	0.641		0.63	20
1,1-Dichloroethane	1.087	1.102	0.1	1.38	20
Cyclohexane	1.023	0.970		-5.18	20
2-Butanone	0.163	0.195		19.63	20
Carbon Tetrachloride	0.409	0.430		5.13	20
cis-1,2-Dichloroethene	0.695	0.694		-0.14	20
Bromochloromethane	0.297	0.283		-4.71	20
Chloroform	1.084	1.088		0.37	20
1,1,1-Trichloroethane	0.934	0.931		-0.32	20
Methylcyclohexane	0.598	0.611		2.17	20
Benzene	1.384	1.437		3.83	20
1,2-Dichloroethane	0.364	0.373		2.47	20
Trichloroethene	0.389	0.385		-1.03	20
1,2-Dichloropropane	0.341	0.349		2.35	20
Bromodichloromethane	0.446	0.463		3.81	20
4-Methyl-2-Pentanone	0.183	0.190		3.83	20
Toluene	0.875	0.902		3.09	20
t-1,3-Dichloropropene	0.422	0.432		2.37	20
cis-1,3-Dichloropropene	0.516	0.533		3.3	20
1,1,2-Trichloroethane	0.238	0.242		1.68	20
2-Hexanone	0.132	0.157		18.94	20
Dibromochloromethane	0.287	0.288		0.35	20
1,2-Dibromoethane	0.227	0.226		-0.44	20
Tetrachloroethene	0.357	0.356		-0.28	20
Chlorobenzene	1.025	1.046	0.3	2.05	20
Ethyl Benzene	1.844	1.911		3.63	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

Instrument ID: MSVOA_D Calibration Date/Time: 01/23/2023 10:15

Lab File ID: VD075168.D Init. Calib. Date(s): 01/18/2023 01/18/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:25 13:10

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.712	0.735		3.23	20
o-Xylene	0.668	0.697		4.34	20
Styrene	1.111	1.138		2.43	20
Bromoform	0.178	0.184	0.1	3.37	20
Isopropylbenzene	3.949	3.967		0.46	20
1,1,2,2-Tetrachloroethane	0.629	0.641	0.3	1.91	20
1,3-Dichlorobenzene	1.749	1.721		-1.6	20
1,4-Dichlorobenzene	1.720	1.704		-0.93	20
1,2-Dichlorobenzene	1.496	1.503		0.47	20
1,2-Dibromo-3-Chloropropane	0.096	0.097		1.04	20
1,2,4-Trichlorobenzene	0.982	0.896		-8.76	20
1,2,3-Trichlorobenzene	0.838	0.768		-8.35	20
1,2-Dichloroethane-d4	0.510	0.517		1.37	20
Dibromofluoromethane	0.302	0.318		5.3	20
Toluene-d8	1.190	1.250		5.04	20
4-Bromofluorobenzene	0.378	0.377		-0.26	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_N Calibration Date/Time: 01/20/2023 10:27

Lab File ID: VN076337.D Init. Calib. Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:54 13:17

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.512	0.472		-7.81	20
Chloromethane	0.531	0.468	0.1	-11.86	20
Vinyl Chloride	0.650	0.587		-9.69	20
Bromomethane	0.533	0.487		-8.63	20
Chloroethane	0.488	0.443		-9.22	20
Trichlorofluoromethane	0.895	0.825		-7.82	20
1,1,2-Trichlorotrifluoroethane	0.507	0.479		-5.52	20
1,1-Dichloroethene	0.479	0.448		-6.47	20
Acetone	0.195	0.184		-5.64	20
Carbon Disulfide	1.192	1.019		-14.51	20
Methyl tert-butyl Ether	1.559	1.530		-1.86	20
Methyl Acetate	0.608	0.535		-12.01	20
Methylene Chloride	0.645	0.515		-20.16	20
trans-1,2-Dichloroethene	0.519	0.471		-9.25	20
1,1-Dichloroethane	0.877	0.813	0.1	-7.3	20
Cyclohexane	0.860	0.733		-14.77	20
2-Butanone	0.274	0.255		-6.93	20
Carbon Tetrachloride	0.496	0.476		-4.03	20
cis-1,2-Dichloroethene	0.605	0.578		-4.46	20
Bromochloromethane	0.356	0.353		-0.84	20
Chloroform	0.971	0.919		-5.36	20
1,1,1-Trichloroethane	0.886	0.851		-3.95	20
Methylcyclohexane	0.543	0.530		-2.39	20
Benzene	1.329	1.262		-5.04	20
1,2-Dichloroethane	0.455	0.425		-6.59	20
Trichloroethene	0.376	0.353		-6.12	20
1,2-Dichloropropane	0.318	0.300		-5.66	20
Bromodichloromethane	0.466	0.454		-2.58	20
4-Methyl-2-Pentanone	0.340	0.325		-4.41	20
Toluene	0.889	0.843		-5.17	20
t-1,3-Dichloropropene	0.444	0.470		5.86	20
cis-1,3-Dichloropropene	0.511	0.511		0	20
1,1,2-Trichloroethane	0.340	0.322		-5.29	20
2-Hexanone	0.247	0.242		-2.02	20
Dibromochloromethane	0.358	0.371		3.63	20
1,2-Dibromoethane	0.339	0.338		-0.29	20
Tetrachloroethene	0.451	0.415		-7.98	20
Chlorobenzene	1.057	1.011	0.3	-4.35	20
Ethyl Benzene	1.809	1.805		-0.22	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_N Calibration Date/Time: 01/20/2023 10:27

Lab File ID: VN076337.D Init. Calib. Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:54 13:17

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.725	0.724		-0.14	20
o-Xylene	0.712	0.712		0	20
Styrene	1.137	1.175		3.34	20
Bromoform	0.284	0.293	0.1	3.17	20
Isopropylbenzene	3.868	3.769		-2.56	20
1,1,2,2-Tetrachloroethane	1.112	0.997	0.3	-10.34	20
1,3-Dichlorobenzene	1.823	1.710		-6.2	20
1,4-Dichlorobenzene	1.842	1.691		-8.2	20
1,2-Dichlorobenzene	1.816	1.687		-7.1	20
1,2-Dibromo-3-Chloropropane	0.193	0.185		-4.14	20
1,2,4-Trichlorobenzene	0.870	0.848		-2.53	20
1,2,3-Trichlorobenzene	0.823	0.806		-2.07	20
1,2-Dichloroethane-d4	0.560	0.568		1.43	20
Dibromofluoromethane	0.313	0.326		4.15	20
Toluene-d8	1.155	1.207		4.5	20
4-Bromofluorobenzene	0.377	0.435		15.39	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_N Calibration Date/Time: 01/23/2023 10:17

Lab File ID: VN076355.D Init. Calib. Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:54 13:17

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.512	0.458		-10.55	20
Chloromethane	0.531	0.476	0.1	-10.36	20
Vinyl Chloride	0.650	0.625		-3.85	20
Bromomethane	0.533	0.520		-2.44	20
Chloroethane	0.488	0.479		-1.84	20
Trichlorofluoromethane	0.895	0.812		-9.27	20
1,1,2-Trichlorotrifluoroethane	0.507	0.467		-7.89	20
1,1-Dichloroethene	0.479	0.428		-10.65	20
Acetone	0.195	0.177		-9.23	20
Carbon Disulfide	1.192	1.088		-8.73	20
Methyl tert-butyl Ether	1.559	1.510		-3.14	20
Methyl Acetate	0.608	0.533		-12.34	20
Methylene Chloride	0.645	0.523		-18.92	20
trans-1,2-Dichloroethene	0.519	0.463		-10.79	20
1,1-Dichloroethane	0.877	0.828	0.1	-5.59	20
Cyclohexane	0.860	0.717		-16.63	20
2-Butanone	0.274	0.251		-8.39	20
Carbon Tetrachloride	0.496	0.489		-1.41	20
cis-1,2-Dichloroethene	0.605	0.565		-6.61	20
Bromochloromethane	0.356	0.387		8.71	20
Chloroform	0.971	0.932		-4.02	20
1,1,1-Trichloroethane	0.886	0.858		-3.16	20
Methylcyclohexane	0.543	0.526		-3.13	20
Benzene	1.329	1.247		-6.17	20
1,2-Dichloroethane	0.455	0.430		-5.49	20
Trichloroethene	0.376	0.335		-10.9	20
1,2-Dichloropropane	0.318	0.300		-5.66	20
Bromodichloromethane	0.466	0.475		1.93	20
4-Methyl-2-Pentanone	0.340	0.330		-2.94	20
Toluene	0.889	0.825		-7.2	20
t-1,3-Dichloropropene	0.444	0.477		7.43	20
cis-1,3-Dichloropropene	0.511	0.524		2.54	20
1,1,2-Trichloroethane	0.340	0.319		-6.18	20
2-Hexanone	0.247	0.234		-5.26	20
Dibromochloromethane	0.358	0.384		7.26	20
1,2-Dibromoethane	0.339	0.327		-3.54	20
Tetrachloroethene	0.451	0.385		-14.63	20
Chlorobenzene	1.057	0.969	0.3	-8.32	20
Ethyl Benzene	1.809	1.778		-1.71	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_N Calibration Date/Time: 01/23/2023 10:17

Lab File ID: VN076355.D Init. Calib. Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:54 13:17

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.725	0.699		-3.59	20
o-Xylene	0.712	0.691		-2.95	20
Styrene	1.137	1.135		-0.18	20
Bromoform	0.284	0.309	0.1	8.8	20
Isopropylbenzene	3.868	3.758		-2.84	20
1,1,2,2-Tetrachloroethane	1.112	1.010	0.3	-9.17	20
1,3-Dichlorobenzene	1.823	1.657		-9.11	20
1,4-Dichlorobenzene	1.842	1.609		-12.65	20
1,2-Dichlorobenzene	1.816	1.613		-11.18	20
1,2-Dibromo-3-Chloropropane	0.193	0.183		-5.18	20
1,2,4-Trichlorobenzene	0.870	0.821		-5.63	20
1,2,3-Trichlorobenzene	0.823	0.789		-4.13	20
1,2-Dichloroethane-d4	0.560	0.565		0.89	20
Dibromofluoromethane	0.313	0.314		0.32	20
Toluene-d8	1.155	1.173		1.56	20
4-Bromofluorobenzene	0.377	0.403		6.9	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_Y Calibration Date/Time: 01/23/2023 12:09

Lab File ID: VY012307.D Init. Calib. Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:17 14:34

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.437	0.387		-11.44	20
Chloromethane	0.403	0.377	0.1	-6.45	20
Vinyl Chloride	0.471	0.462		-1.91	20
Bromomethane	0.364	0.354		-2.75	20
Chloroethane	0.307	0.305		-0.65	20
Trichlorofluoromethane	0.919	0.884		-3.81	20
1,1,2-Trichlorotrifluoroethane	0.447	0.440		-1.57	20
1,1-Dichloroethene	0.459	0.454		-1.09	20
Acetone	0.139	0.146		5.04	20
Carbon Disulfide	1.420	1.365		-3.87	20
Methyl tert-butyl Ether	1.280	1.242		-2.97	20
Methyl Acetate	0.312	0.292		-6.41	20
Methylene Chloride	0.762	0.518		-32.02	20
trans-1,2-Dichloroethene	0.512	0.505		-1.37	20
1,1-Dichloroethane	0.785	0.778	0.1	-0.89	20
Cyclohexane	0.729	0.682		-6.45	20
2-Butanone	0.154	0.146		-5.2	20
Carbon Tetrachloride	0.581	0.569		-2.07	20
cis-1,2-Dichloroethene	0.563	0.549		-2.66	20
Bromochloromethane	0.171	0.159		-7.02	20
Chloroform	0.927	0.919		-0.86	20
1,1,1-Trichloroethane	0.918	0.900		-1.96	20
Methylcyclohexane	0.550	0.560		1.82	20
Benzene	1.299	1.299		0	20
1,2-Dichloroethane	0.413	0.406		-1.7	20
Trichloroethene	0.388	0.383		-1.29	20
1,2-Dichloropropane	0.271	0.274		1.11	20
Bromodichloromethane	0.457	0.456		-0.22	20
4-Methyl-2-Pentanone	0.197	0.186		-5.58	20
Toluene	0.865	0.875		1.16	20
t-1,3-Dichloropropene	0.478	0.466		-2.51	20
cis-1,3-Dichloropropene	0.514	0.511		-0.58	20
1,1,2-Trichloroethane	0.258	0.247		-4.26	20
2-Hexanone	0.150	0.147		-2	20
Dibromochloromethane	0.342	0.329		-3.8	20
1,2-Dibromoethane	0.249	0.239		-4.02	20
Tetrachloroethene	0.456	0.461		1.1	20
Chlorobenzene	1.023	1.005	0.3	-1.76	20
Ethyl Benzene	1.828	1.852		1.31	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_Y Calibration Date/Time: 01/23/2023 12:09

Lab File ID: VY012307.D Init. Calib. Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:17 14:34

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.723	0.728		0.69	20
o-Xylene	0.690	0.693		0.44	20
Styrene	1.154	1.171		1.47	20
Bromoform	0.247	0.234	0.1	-5.26	20
Isopropylbenzene	3.605	3.679		2.05	20
1,1,2,2-Tetrachloroethane	0.568	0.540	0.3	-4.93	20
1,3-Dichlorobenzene	1.726	1.693		-1.91	20
1,4-Dichlorobenzene	1.721	1.678		-2.5	20
1,2-Dichlorobenzene	1.540	1.496		-2.86	20
1,2-Dibromo-3-Chloropropane	0.117	0.110		-5.98	20
1,2,4-Trichlorobenzene	0.987	0.948		-3.95	20
1,2,3-Trichlorobenzene	0.849	0.816		-3.89	20
1,2-Dichloroethane-d4	0.465	0.425		-8.6	20
Dibromofluoromethane	0.265	0.258		-2.64	20
Toluene-d8	1.044	0.958		-8.24	20
4-Bromofluorobenzene	0.373	0.357		-4.29	20

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